Participant Handbook

Sector
MEDIA AND ENTERTAINMENT

Sub-Sector
Film, Television, Animation, Advertising

Occupation
Roto artist

Reference ID: **MES/ Q 3504, Version 3.0**
NSQF Level 4

Roto Artist

This book is sponsored by Media and Entertainment
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> If we have to move India towards
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> should be our mission. "

Shri Narendra Modi
Prime Minister of India

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SKILLING CONTENT: PARTICIPANT HANDBOOK

Complying to National Occupational Standards of
Job Role/ Qualification Pack: '**Roto Artist**' QP No. '**MES/Q 3504 NSQF Level 4**'

Date of Issuance:
Valid up to: **January 25th ,2027**
* Valid up to the next review date of the Qualification Pack
 'Valid up to date mentioned above (whichever is earlier)

Authorised Signatory
(Media and entertainment skills council)

Acknowledgements

About this Book

This Participant Handbook is designed to enable training for the Roto Artist Qualification Pack (QP) with Ref. ID MES/ Q 3504. There are 4 National Occupational Standards (NOS) under this qualification pack. Each National Occupational (NOS) is covered across 8 Units in this book.

Key Learning Objectives for every NOS mark the beginning of the Unit for that NOS. In Table of Contents, you will find the module names with their corresponding NOS code. The symbols used in this book are described below.

Symbols Used

Key Learning Outcomes	Steps	Time	Tips	Notes	Unit Objectives

Exercise

Table of Contents

1. Introduction

Unit 1.1 - Introduction to the Media and Entertainment

Unit 1.2 –Duties and Responsibilities of a Roto Artist

Key Learning Outcomes

At the end of this module, you will be able to:

1. Explain the key features of the Media and Entertainment sector
2. Discuss various processes and products of Media & Entertainment sector
3. Learn about the role of Roto Artist in industry.
4. Identify the minimum requirement to become a certified Roto Artist.
5. Describe the work area of Roto Artist.
6. Identify the opportunities available for Roto Artist.

UNIT 1.1: Introduction to Media & Entertainment

Unit Objectives

At the end of this unit, you will be able to:

1. Describe the media and entertainment industry in India
2. Describe the growth expected in the media & entertainment industry
3. Explain the various products and processes of the industry
4. Identify some keywords used in the industry

1.1.1 Media and Entertainment Sector in India

The Indian media and entertainment (M&E) sector is one of the biggest in the world. It is placed as 14th largest in the world. This sector is 1.7% of Indian GDP. The sector employs 9.3% of the workforce of our country and we are expecting it to be 17% till the end of 2017

It is estimated that Indian Media and Entertainment market will flourish to CAGR of 13.9 % to expand from 10260 crores in 2014 to reach 19640 crores by 2019.

Share of subscription and advertising revenues for television industry

	FY15	FY19F
TV Advertisement	32.17%	30.70%
Subscription Revenue	67.83%	69.30%

Source: KPMG Report 2015 & 2014, TechSci Research
Note: F - Forecast
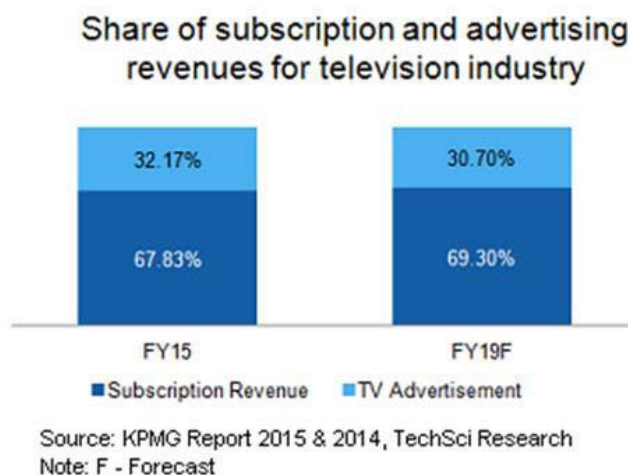
Figure 1.1. 1 Advertising Revenue of TV Industry

In 2014, digital advertising business grew 44% as campared to 2013. The revenue generated was also 14.2 % more than 2013 to reach INR 4140 crore out of which print has share of 43 percent and television has share of 37 percent.

India is one of the largest broadcasters in the world with approximately 800 TV channels, 242 FM channels and more than 100 community radio networks working at present. Bollywood, the Indian film industry is the largest producer of films around the globe with 400 production and corporate houses involved.

The Government of India keeps on pushing the Media and Entertainment industry by launching various schemes such as digitising the cable TV to fill greater institutional funding, raising the Foriegn investment from 74 per cent to 100 per cent in cable and DTH satellite platforms. Government has also alotted industry status to the film industry for easy finance.

1.1.2 Employability in Media and Entertainment Sector

The Media sector is highly dependent on advertising revenues and performance of Industry for economy outlook. This sector was having 4 lakhs workforce in 2013 and we expect it to reach 13 lakhs by 2022 which means employing 9 lakhs of additional employment in the period of 2013-22.

- 1/4th of the people employed in Media and Entertainment sector are from film industry.

- The Media & Entertainment sector has about 4.60 lakhs people employed, and is projected to grow at the rate of 13 % to reach 7.5 lakhs by 2017.

- The Media and Entertainment sector which is expected to grow at rate of 14.2 % by 2018 which means to reach 17,860 crore of business for skilled professionals across each of its sub-sectors.

- Film & Television sector has a major portion of the workforce employed in media and entertainment. Digitization activities being done in both films and television arena are the key player for this demand.
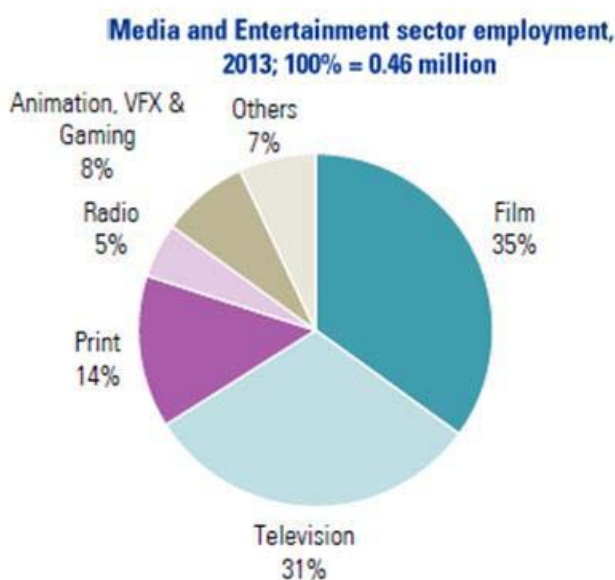
Figure 1.1. 2 Media & Entertainment Employment in 2013

Sub Sector	Employment (in Millions)		
	2013	**2017**	**2022**
Television	0.14	0.28	0.64
Print	0.06	0.07	0.13
Radio	0.02	0.03	0.04
Animation, VFX and Gaming	0.02	0.03	0.04
Films	0.16	0.24	0.44
Overall Sector	0.4	0.65	1.3

Table 1.1.1 Employement in Different Sectors of Media and Entertainment

1.1.3 Evolution of Media and Entertainment Sector

• Radio broadcasting came by Radio Club of Bombay in 1923 in India under the British rule.

• All India Radio (AIR), one of the largest radio networks in the world, started working in 1936.

• Doordarshan (DD) started the era of TV on Sept 15, 1959 in India.

• The Indian economy was closed until 1990, and no private player was allowed to enter the space In the 1990s, the Indian film industry was completely fragmented

• BBC launched its national service in 1995

• In 1999, the government allowed private Indian Firms to set up their FM stations on a licence fee basis

• In May 2000, as part of Phase I of radio broadcast licensing, the auction was conducted and 37 licenses were issued, out of which 21 are operational in 14 cities

1.1.4 Major Subsector and Segments

• The Indian M&E industry comprises several sub-sectors, such as television, radio, print media (including newspapers and magazines), films, music, and animation and visual effects (VFX).

• Advertising industry is the major revenues generating part of the industry and the growth of the sector decides the overall growth of the industry.

• Although there is not much to export from this industry but imports have a considerable share in the economy like imports of newsprints, set-top boxes and antennae.
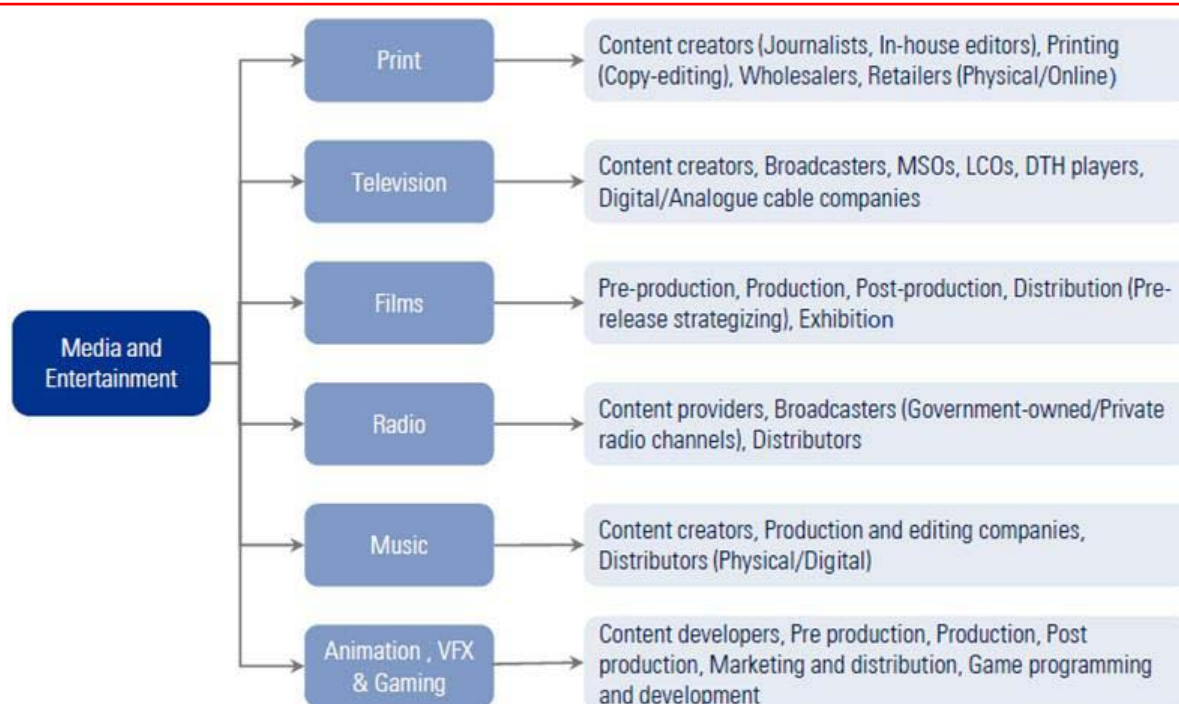
Figure 1.1. 3 Media and Entertainment Sector

- The industry is specific to cultural and ethnic backgrounds, and is organized around specific hubs that specialize in output for a given population segment. For example, the Mumbai film industry (Bollywood) is a key film hub in the country. A similar hub also exists in South India.
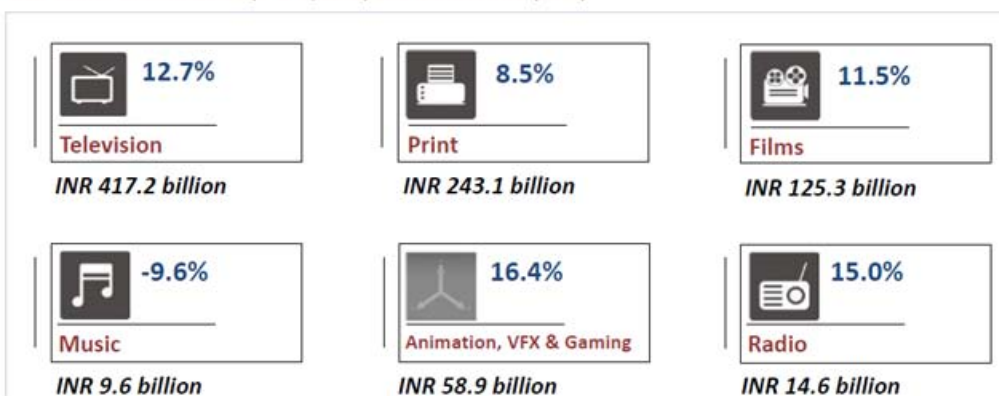
Figure 1.1. 4 Media and Entertainment Sector Growth Rates in 2013

1.1.5 General Key Words used in this Book

Animatic: A series of images edited together with dialogues and sound is called animatic.

Compositing: Combining layers of images/elements into a single frame is called composting.

Composition: Positioning character with respect to the background and camera is called composition.

Creative Brief: A document that captures the key questions for the production including the vision, objective of the target audience, budgets, project, milestones, timelines and stakeholders is called creative brief.

Key Frame: Key poses that start and end poses for a particular animation sequence are called key frames.

Modeling: Creation of three-dimensional models for animation using a specialised software is called modelling.

Rendering: Conversion of three-dimensional models into two-dimensional images with 3D effects is called rendering.

Rigging: Process of adding joints to a static three-dimensional model to aid movement during posing is called rigging.

2D animation: Moving pictures in a two-dimensional environment is called 2D animation like in computerized animation software.

3D animation: 2D animation with depth is called 3D animation. Examples include video games such as Halo and Madden Football.

Animation: Sequential play of various inter-related frames is called animation.

Anticipation: Anticipation are created through the preparation of an action.

Aspect Ratio: The width to height ratio of a tv picture is called aspect ratio.

Background Painting: An artwork done in the background of an animation is called background painting.

CGI (Computer Generated Imagery): Creation of Figures, settings, or other material in the frame using computer software is called CGI.

Clean-Up: The process of refining the rough artwork of 2D animation is called Clean-up.

Computer Animation: Any kind of animation created in computer is called computer animation.

Frame: one of a series of still transparent photographs on a strip of film used in making movies or animations.

Frame Rate: The rate of change of frames in an animation is called frame rate. It is measured in frames per second (fps).

Graphics Tablet: This is a device used to draw sketches.

Pixel: The smallest undivisible portion of an image is called pixel.

Raster: Rastering is the projections of various pixels on CRT screen to form an image.

Rotoscoping: Creation and manipulation of background images of an animation is called rotoscoping. This can be done manually as well as using computer software.

Title Cards: Title cards are also called FIR of an animation. Title cards give brief information about the animation.

Tween: The transition of one frame to another in animation is called tween.

Vector: Some of the artwork is created by vectors rather than pixels. This allows cleaner and smoother animation because images are displayed by mathematical equation solutions.

CEL: It is a cellulose sheet used to paint characters. In practice, it is now a day. plastic sheet in combination with the outline and coloring of a character, object, and/or special effect.

Exercise-1

Discuss the role of Media & Entertainment sector in India economy.

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Exercise-2

Discuss the employability of various sub-sectors in Media & Entertainment Sector.

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UNIT 1.2: Duties and Responsibilities of Roto Artist

Unit Objectives ⌖

At the end of this unit, you will be able to:

1. Introduction to Roto Artist job role.
2. Describe the work area of Roto Artist.
3. Find the opportunities for Roto Artist.
4. Identify the basic functions performed by Roto Artist.

1.2.1 Introduction to Roto Artist Job Role

Roto artist in the Media & Entertainment Industry is also known as a Rotoscopy artist/ Paint artist. Individuals at this job need to break content down into individual frames/elements and alter/re-create content in accordance to requirements.
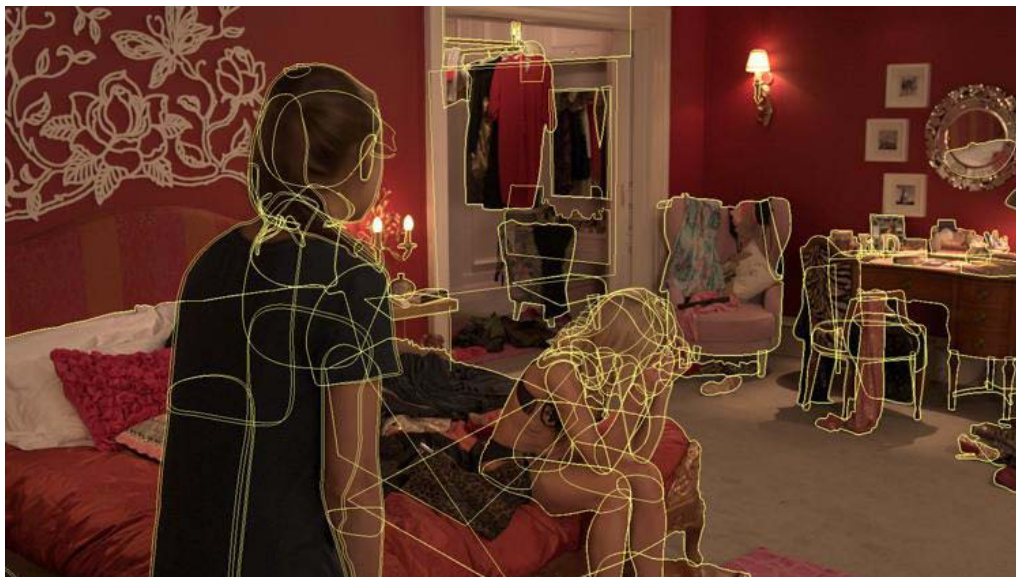
Figure 1.2.1 Work of a roto artist

Rotoscoping is a technique to trace over live-action film movement, frame by frame. The technique was invented by Max Fleischer around 1915 and was patented in 1917. In Rotoscoping, projection of a sequence of photographed or photoshop edited action image frames are superimposed on the video clip it. You can also call it "Painting on Movies". Earlier when computers were not available for general use, device called Rotoscope was used to superimpose sequences of action frames on a surface so that animation frames could be traced or created. With the help of computers, now you can use digital images and special computer software like Silhouette FX and Adobe After Effects CS3 to perform rotoscopy.

Rotoscoping is a time-consuming task. It requires the arrangement of complex shapes to create tracking or animating the shapes to match the shot. On average 15 frames can be rotoscoped per day based on the complexity of the scene by even a professional roto artist. In big-budget movies, shots are routinely rotoscoped to separate every element ready for compositing, and then 2D shots are converted to 3D to allocate depth to each item. Most of the time rotoscopy work is outsourced as it is very time consuming and labor intensive.

1.4.3 Job Profile of Roto Artist

A roto artist performs following tasks in the industry:

- Finding the areas where computer desired frames can replace the natural video frame recorded.
- Preparing a base (Matt) for compositing in the live video if objects are moving but camera is fixed within shot.
- Tracing area in every frame if the camera is moving while recording shots.
- Assisting in preparation of raw material for compositing.
- Roto artist is the entry level in the world of compositing but rotoscopy is the part of compositor's daily professional life.

There are various types of digital rotoscoping techniques available like Matte creation, Painting Effects, Cloning, Stereoscopic conversion, and Motion tracking.

1.4.4 Opportunities for Roto Artist

There are various opportunities for roto artists in the field of production houses and creative boutiques on projects. The main role of a roto artist is to trace over live-action movements on film and create realistic animation. He/she creates detailed digital mattes with 2-D image processing and drawing tools; these mattes are then used to remove wires, rigs, and other unwanted elements. His/her role is to make background fixes and extractions. If working on big projects then the roto-artist assist compositors are responsible for constructing the final image by combining layers of previously-created material. A Roto artist has following benefits for career aspect:

- Low cost of equipment as compared to return
- Lots of opportunities to grow in the industry.

1.4.5 Key Professional Skills

This job requires the individual to have a good understanding of the fundamentals and principles of film-making. The individual must know the fundamentals of depth and should possess good drawing and illustration skills. The individual must have a good working knowledge of rotoscopy software including Nuke, After Effects, Silhouette etc.

Exercise

- Who is a roto artist?

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- What are the common software used by a roto artist?

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- Discuss the job responsibilities of roto artist.

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- What is the job of a roto artist and what are the opportunities?

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2. Understanding the requirements and planning workflow

Unit 2.1 – Introduction to VFX

Key Learning Outcomes

At the end of this module, you will be able to:

1. Understand the creative and technical requirements and expectations in terms of quality of deliverables and timelines.
2. Determine key post-production processes that would be involved to produce the de-sired outcome and chart-out the process workflow (Supervisor)
3. Translate expectations into effort estimates for each process and prepare a work plan, keeping in mind the impact on the production budget, timelines and technical viability (Supervisor)
4. Document post-production requirements that can serve as a reference
5. Document for circulation to the team
6. Document decisions on the processes involved and techniques to be used with rea-sons thereof
7. Document the project work-plan including the key deliverables, resources involved and timelines (Supervisor)
8. Document dos and don'ts for different machines and software for reference of the team
9. Document other areas (e.g. requirements of the target audience, market, end-product, reference links and videos) that may be relevant for the team

UNIT 2.1: Introduction to VFX

Unit Objectives 🎯

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2.1.1 Introduction to Visual Effects (VFX)

Visual effect is the synchronized combination of live recorded footage and computer graphics created in different software. Visual effects are becoming common now a day as the cost of animation software has gone down and even small budget producers can now add effects in their movies. Earlier days, visual effects were the game of camera and lenses but now a day most of the work is done various computer graphic software. Some of the software that are used for visual effects are:

➢ 3DS Max – A software by Autodesk, used for 3D Modeling, animation, and rendering
➢ After Effects – A software by Adobe, used for motion graphics and compositing. A good option for beginners.
➢ Maya – A software by Autodesk, used for creating animation, dynamics, particles, models and so on.
➢ Flame – A software by Autodesk, used to create high quality renderings.
➢ SILHOUETTE – A software by Silhouette Fx, used to perform various tasks of compositing.
➢ Mocha – A software by Boris Fx, used to perform planar tracking and rotoscoping.
➢ Nuke – A software by foundry, used to create compositing of professional quality.
➢ Cinema 4D – A software by Maxon, used to create 3D models, animation and renderings.

> ➢ Syntheyes – A software by Andersson Technologies, is used to track and insert computer graphics in live footage.

There are many other software used for visual effects which you will learn later during your course.

2.1.2 Techniques used in Visual Effects (VFx)

There are various techniques used in creating visual effects in the movie clips. Some of these techniques are discussed next.

Rotoscoping

Rotoscoping is the topic of concern of this participant guide. Rotoscoping is used to edit each frame of the video footage to insert visual effects in the film. The frames can be painted for full size frame or you can paint the desired location of the frames. You can also create depth maps to generate a 3D animation.
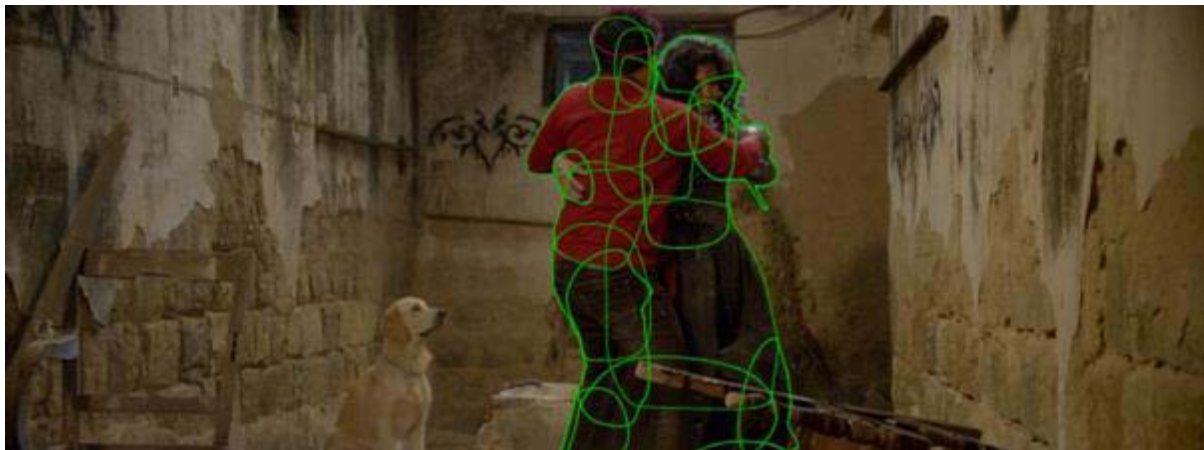
Figure 2.1. 1 Rotoscoping

Green Screen

Green screen is used for compositing images or video clips. At a higher level green screen technique is a part of Chroma keying technique. Apart from green screen, you can also use blue screen. In this technique, the green/blue large screen at the background in the live footage is replaced by desired image or video clip.

Figure 2.1. 2 Green Screen Technique

Motion Tracking Technique

This technique is used to insert computer graphics by replacing the body based on motion points captured in camera. In simple words, motion sensors are applied on any person and a live footage is recorded. Later in post-production, the person is replaced by a model created in 3D Modeling software. The expressions and movements are tracked according to the track sensors.

Figure 2.1. 3 Motion Tracking Techniques

3D Modeling Technique

A 3D model is a computerized representation of real or imaginary object (either lifeless or living) by means of a 3d modeling software like 3Ds Max, Maya, Cinema 4D, and so on. The product created in these software is known as 3D model. The 2D representation of model can be used by rendering to show a real-world image or you can use the 3D model in computer simulations to generate vfx.
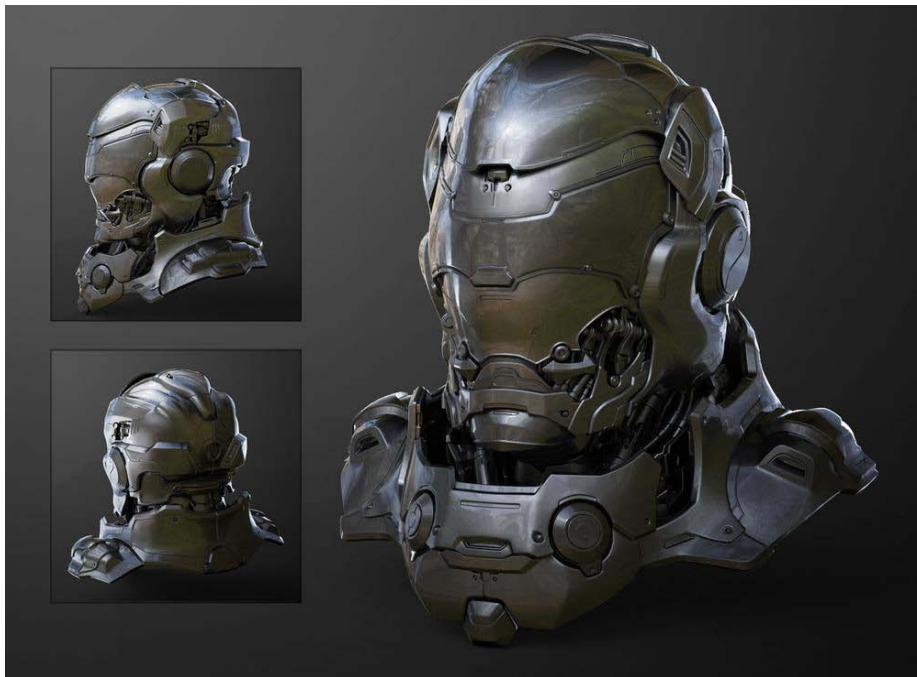
Figure 2.1. 4 3D Model

Matte Painting

Matte painting is generally used in VFX techniques for filmmaking. The matte painting technique is used in photography. The matte painting is evolved from painted glass panel s to 3D digital works. A matte painting can be created on painted glass pane or a large paper which is used to show the landscape or large set piece. Generally, matte painting is filmed on set, where they are framed to look like a real scene or physical scene and they are combined with the live footage in post-production. Matte painting is the oldest technique in the visual effects industry and one of the most widely applied technique. The concept of matte painting is simple i.e. use one or more painting to replace a background. This concept sounds pretty simple but the technique of matte painting need skills because the matte painting used to replace background of the actual image so that the audience is not able to recognize that it is the made up scene.
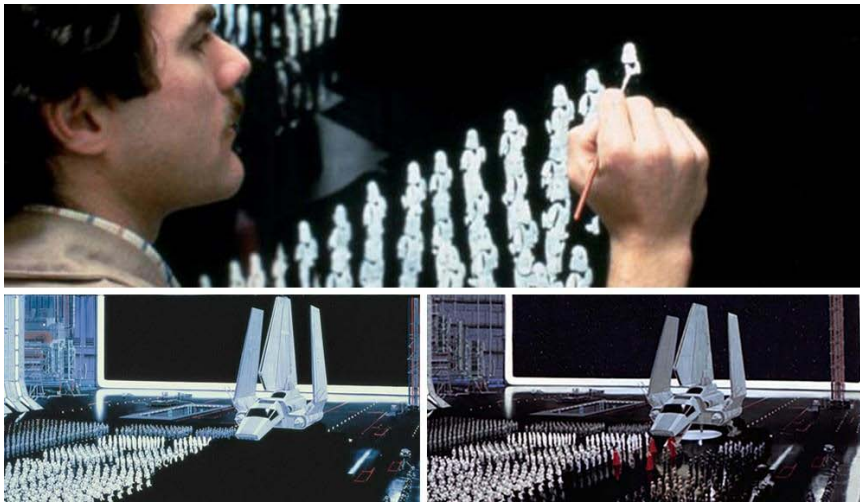
Figure 2.1.5 Artist doing matte painting

The matte painting is one of the most common VFX techniques in film making. You need to shoot your action in front of green or blue screen, and then apply a single matte painting to the background of the initial action. With this technique, you can make your film look like it was filmed anywhere in the world or in the imaginary world.

Special Effects

To be simple, the special effects are carried out on the set during production. The special effects also abbreviated as SFX, SPFX, or FX. The special effects are illusions or visual tricks used in the film, theatre, video game, television, and simulator industry to show the imaginary scene as real to the audience.

The special effects are generally of two types: optical effects and mechanical effects. With the development of digital film making in the world, a difference between special effects and visual effects has been grown. The special effects tend to apply some type of effects during the production and visual effects tend to apply some type of effects after production of action.

The optical effect is done by modifying the camera angle and lighting which in turn make the scene look different from the actual scene. This may involve working with the camera lenses, types of lighting, or camera movement which give a certain look to the shot.

Figure 2.1.6 Special effects in a film

The mechanical effects involve modifying while shooting a live action shot and usually refer to create the things like something they are not.

Figure 2.1.7 Mechanical effects in a movie

Visual Effects

You might have hear this before that the "The visual effects of this movie were amazing" but what really is visual effect and how do they work. In this section we will discuss about the visual effects and their working.

Visual effects are also known as Visual FX or VFX. Visual effects are used to describe any imaginary, altered or enhanced action or a moving media which is not able to be accomplished during a live-action shooting. Visual effects contribute in the integration of live-action footage and generated images to create the scene of the action realistic. The visual effects in the movie post production after primary capturing of image is completed. Visual effects can be added to live action or captured through techniques like matte painting, miniature or forced perspective sets, rear- and front-screen

projection; computer graphic objects, characters, and environments; and also the composition of images recorded in any other way.

Figure 2.1.8 Visual effects in a movie

Optical Printer

In the VFX term, the letter "O" stands for "optical printer". It is a piece of equipment created to copy motion picture. An optical printer has a projector at one end and camera at the other end. By running the action scene through projector and photographing it with the camera, you are able to create a near-perfect duplicate of the original action scene. By moving the projector and camera around, or zooming the lenses of camera in and out, you are able to change the size and orientation of the final images.

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Figure 2.1.9 View for optical printing

Prosthetic Makeup effects

Prosthetic makeup is a process of makeup in which new feature were added on the face/body of the actor through the use of many materials like latex, silicon, foam latex, gelatin, or soft plastic material. With the use of these materials, an artist create the unusual makeup on the body of the actor like a real cause. The edges created in the prosthetic makeup are sharp and thin to look like a real.

Figure 2.1.10 Materials used in prosthetic makeup

A good prosthetic makeup will allow all the motions to express and will remain solid and consistent during the performance. The most basic use of the prosthetic makeup can be used to hide effects mechanism like bullet hits and blood tubes.

Figure 2.1.11 Prosthetic makeup

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Exercise

1. Write is VFX and where it is used.

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2. What is rotoscoping and what is the need of rotoscoping ?

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3. What do you mean by matte painting?

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4. Why do we use green or blue color only in the vfx?

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5. What are optical and mechanical effects?

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6. Describe the Visual effects in vfx?

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3. Managing Equipment and Material

Unit 3.1 – Managing files and preparing images as required

MES/N3502

Key Learning Outcomes

At the end of this module, you will be able to:

1. Gather raw footage/material and select relevant material that can be used for post-production.
2. Ingest the footage/keep the material ready for the post-production process.
3. Save back-ups for interim work-products in the appropriate file formats.
4. Ensure final work-products are prepared in appropriate file formats (such as mp4, avi, wmv, mpg and mov) and appropriate medium (such as DVD, film, tape and digital) compatible with intended distribution/exhibition mediums
5. Clear logs/data and keep the software and equipment ready for future use

UNIT 3.1: Managing files and preparing images as required

Unit Objectives ◎

At the end of this unit, you will be able to:

1. Gather raw footage/material and select relevant material that can be used for post-production.
2. Ingest the footage/keep the material ready for the post-production process.
3. Save back-ups for interim work-products in the appropriate file formats.
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5. Clear logs/data and keep the software and equipment ready for future use

3.1.1 Capturing video for rotoscoping

In this section we will discuss the process of capturing the video for animation using rotoscope feature and the procedure of editing a video for animation video. There are many softwares used for rotoscoping like Silhouette FX, Imgineer's mocha, and Adobe after effects. If you really want to learn and understand the process animation video making, these software would be useful.

Every time you shoot an new frame for your animation file, your video will move too. This makes the animation a easy task because you don't need to be worry about the movement of model and for how long the movements should be. These animation software allow you to remove the green screen from the background of the video. So that you can edit your animation video to look like a real one.

3.1.2 Materials required for rotoscoping

You will need many materials for rotoscoping which are discussed next.

- **A green screen**
- **Tripod**

Figure 3.1 Tripod

- **Lightning**

Figure 3.2 Lightining

- **Camera**

A camera which shoots the same amount of frames as you want.

Figure 3.3 Camera

- **Adobe Premier**
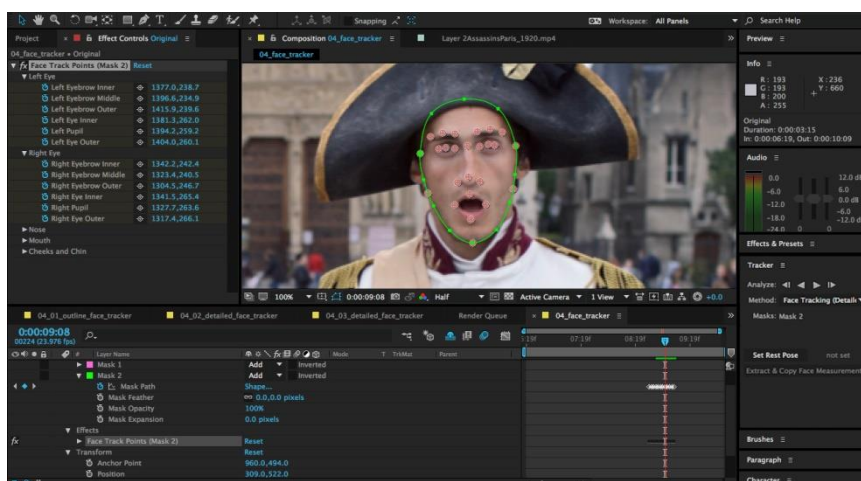
Figure 3.4 Adobe premier software

- **Stop Motion Pro**

This software Is used for stop motion animation program

Figure 3.6 Stop motion pro

- **A set to shoot the video**

Figure 3.7 A vfx set of bahubali

3.1.3 Shooting the video

Now, you need to set up the green screen and remove the wrinkles on the green screen as much as possible. Illuminate the green screen with the proper lighting system to eliminate the shadow on the green screen. When you are filming the video in front of screen, you need to be sure to leave enough time for a response from your character if you are planning a conversation with it. Remember that the longer the video, the longer you need to animate and more editing you need to do.

 After shooting the video, save it to a specific location on your computer and get your camera ready again for another use.

Figure 3.8 shooting a video

3.1.4 Steps for Rotoscoping

For rotoscope you will need to synchronize your video with the animation. This does not require a green screen background or any type of special lightning.

- You need to export the 2-3 second clip of your video to JPEG format with the help of required software. Our brain can make a continuous moving picture with the number of image is 16. It means that there will be a minimum of 16 images is passed in a second to make it a video for a human eye. But for quality purpose the number of frames per second can go to 30. This value can be increase up to 60fps for recording a 3D video. The frames of will be saved in the computer with the name starting from 1 like 1.jpeg.
- Delete all the even number of frames from the folder. This process will cut down the time needed for tracing.
- You need to print all the remaining frame on the paper with the help of inkjet or laser printer. It will be good to number each printout as it comes out from the printer.
- Trace each printout and again number the each tracing.
- You will need a application like stopmotion to capture the each tracing. Always remember to take 2 frames for each drawing to compensate for the fact that we have deleted the even number frame.
- After tracing all the frames, render the footage to a final .dv format file.
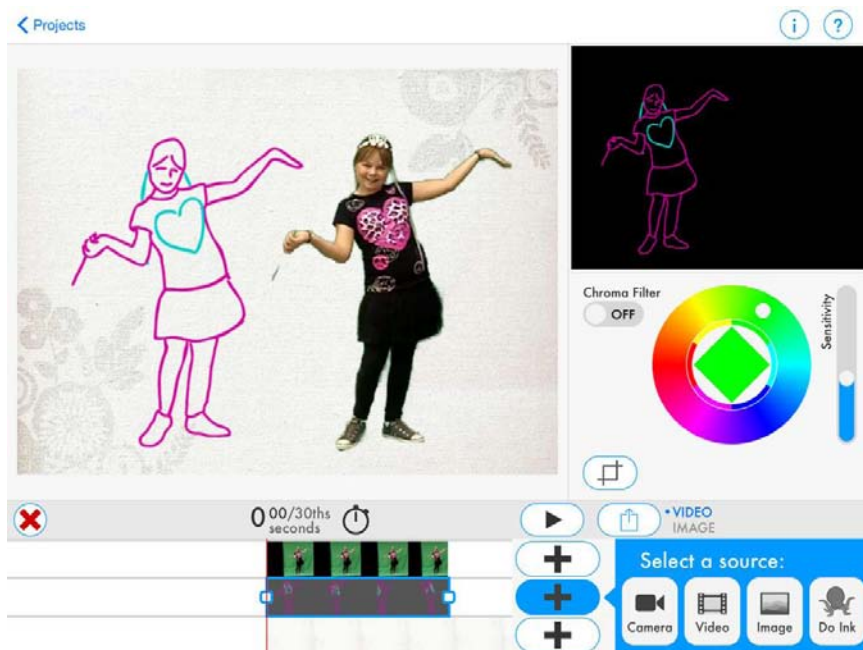
Figure 3.9 Tracing the action for rotoscoping

Figure 3.10 Rotoscoping

3.2.1 Photoshop Tool Bar

You need to click on the Window button from Menu bar at the top of the screen. The drop-down will be displayed. Click on the Tools button from the displayed menu, the Tools bar will be displayed. In Photoshop CS3 software, the Tool bar may be displayed in two types which is shown below:
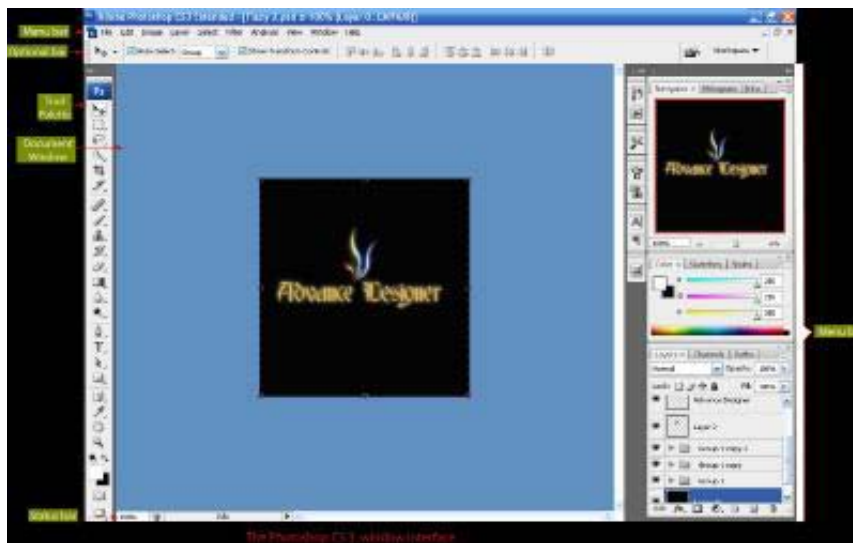
Figure 3.11 Photoshop Window

Compact Tool Bar

Figure 3.12: Compact tool bar

Extended Tool bar

The extended toolbar is displayed on the left of the screen:
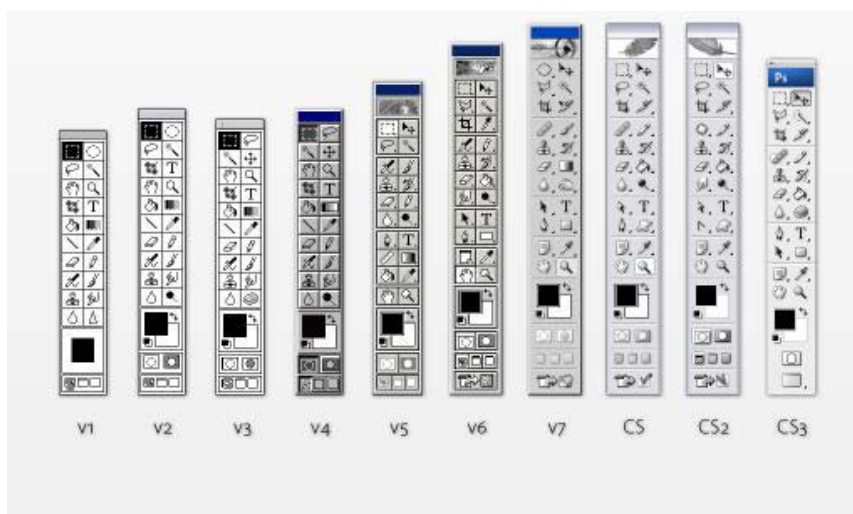
Fig.3.13: Extended and compact display
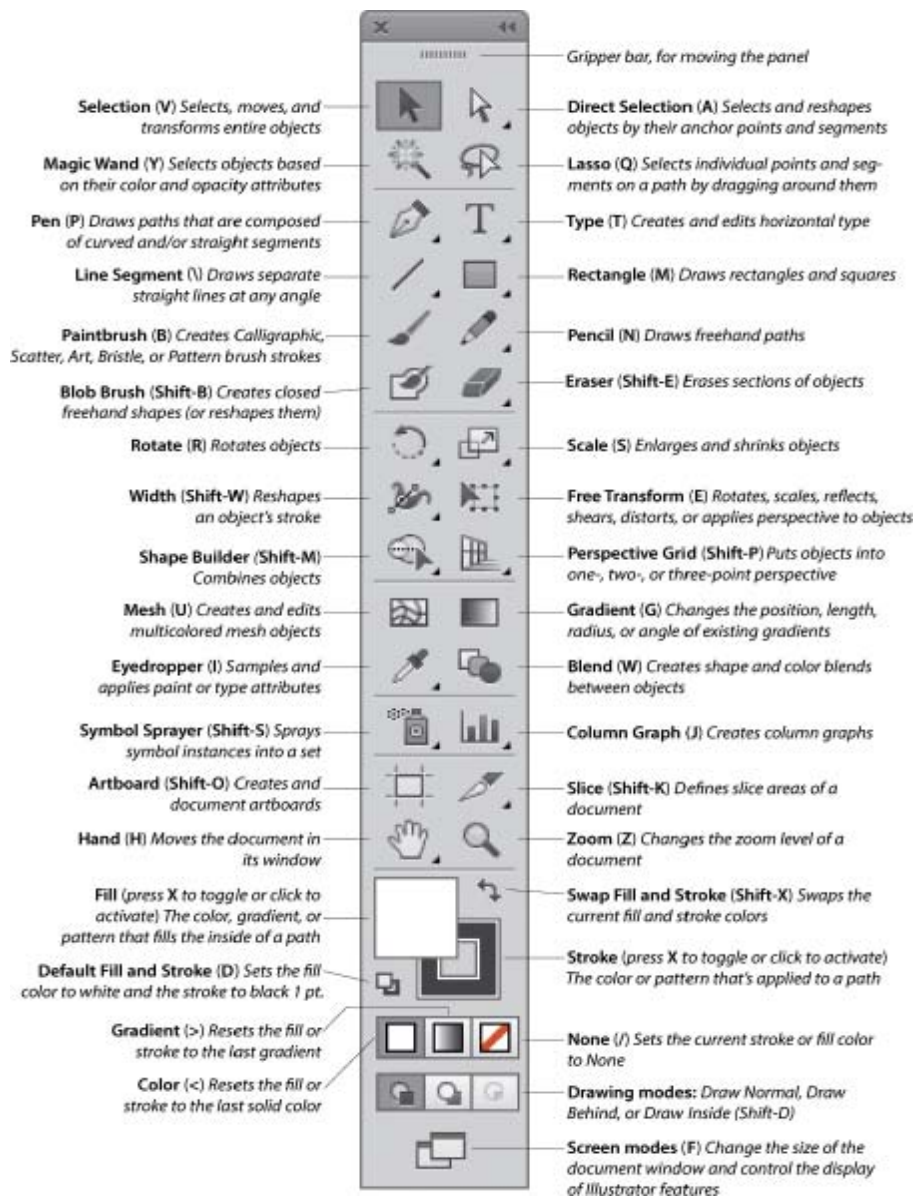
Fig.3.14 : Tool Name

Some buttons in the toolbar include more than one one tool or we can say the other type of the same tool. For example, we can apply the Polygonal tool and the Magnetic Lasso tool by clicking on the Lasso as shown below:
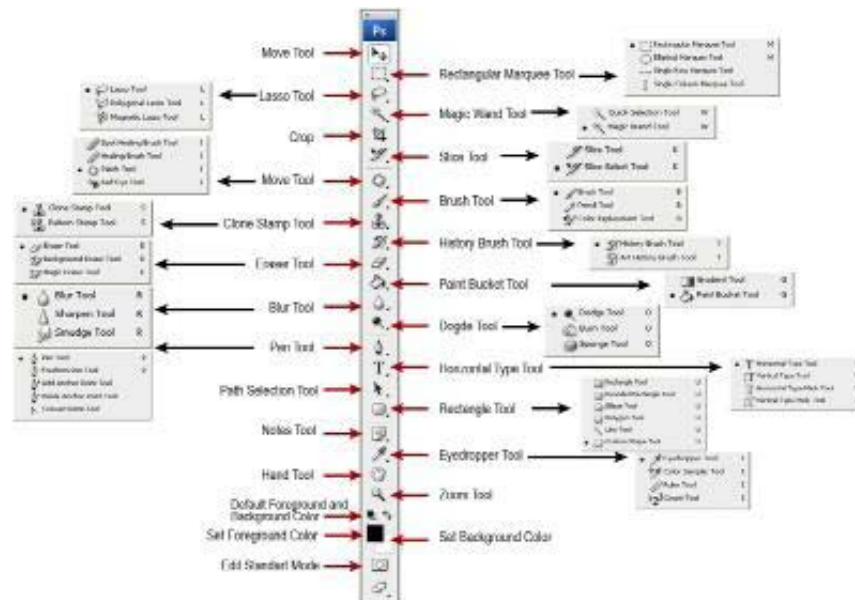
Fig.3.15 : Additional tools

3.2.2 Tool Palettes

1. **Tool information menu:** Click on the tool bar menu and select the size and other options of the selected tool.
2. **History palette:** The History palette is used to undo or redo your steps by clicking on them. This section holds the memory of around 30 previous steps or action you have done for editing your photo. In this software you are able to change the number of action or steps which are displayed in the History palette from the main option.
3. **Tool presets:** The Tool presets tool is used for denying the information for current tools
4. **Brushes and Clone source:** Click on the Brushes or Clone options to us brushes or clone any area of the drawing.
5. **Character and Paragraph:** The Character and Paragraph option is used to select text size, color, font etc. of the text. You can also change the space and other options.
6. **Navigator and Info:** The Navigate option is used to navigate the image on your current screen. It is also used to control the zoom in and zoom out button. The Info button is used to locate the exact location of a color or an object.
7. **Color selection:** The color selection is used to define a color or create a gradient as per need.
8. **Layer palette:** The Layer palette tool is used to apply the layers in the current image. It is the most powerful feature of Photoshop. In the Photoshop software, each layer acts as a separate image, which is able to be edited other than any other layer.

The layers of the image are managed with the use of Layers palette tool. The Layers palette option displays a thumbnail view of each layer on the image to help for identifying.
To enable the layers for an image you need to click on the tool and to disable the layer, click again.
With the help of this software, you are able to change the appearance of an image without

permanently affecting the single pixel of image. Click on the eye button to show or hide the visibility. One of its layer is hidden reveling the white background beneath.

Fig.3.16 (a) : Layers Palette   *Figure 3.16 (b) : Layers Paette*

Note: Click and drag the layer to the trash button in the layer palette to delete a layer. The layer will be deleted.

3.2.3 Capturing Images

The Photoshop software is also used to manipulate the images. In Photoshop, you are able to import the images from mobile phone camera, digital camera, a scanner and Internet.

Digital Camera: To import the image from digital camera to Photoshop, you need to connect the digital camera with the help of USB cable or wireless connection. After connecting, copy your images from digital camera to your computer's hard drive in a specific location. You need to remember the location of file storage for future reference. Open the Photoshop software, and click on File button> Open button. The open dialog box will be displayed. Select the required file and click on the Open button. The image will be opened.
NOTE: You need to be sure to rename manipulated image before saving. Because sometimes the original image will be used as future reference.

Mobile Camera: The connection of Mobile Cameras is established as the same way as digital camera.

Internet Images: After searching the required file from the internet, you need to save the downloaded file in a specify location of the computer's hard drive. You need to be sure to remember the folder name for future reference. Later, you will need the file for editing in the Photoshop. (Refer to project guidelines)

Scan your images: You will need a image scanner to scan the image. You need to put the image facing downside in the scanner glass to scan the image. Then you need to click on File button >

Import button> and select the scanner source. In some case, a notification window will be displayed on the screen for notifying about the scanned image. In that case you will beed to adjust the parameters for your image to be scanned.
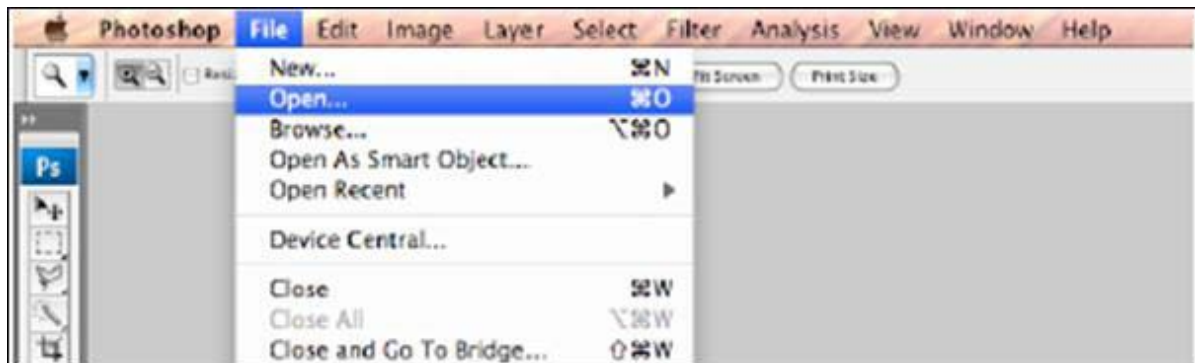
Figure 3.17 Open an image

NOTE: *The print quality of the image should be 150-300 dpi. [dot (pixel) per inch] and images used for the screen should be 72 dpi.*
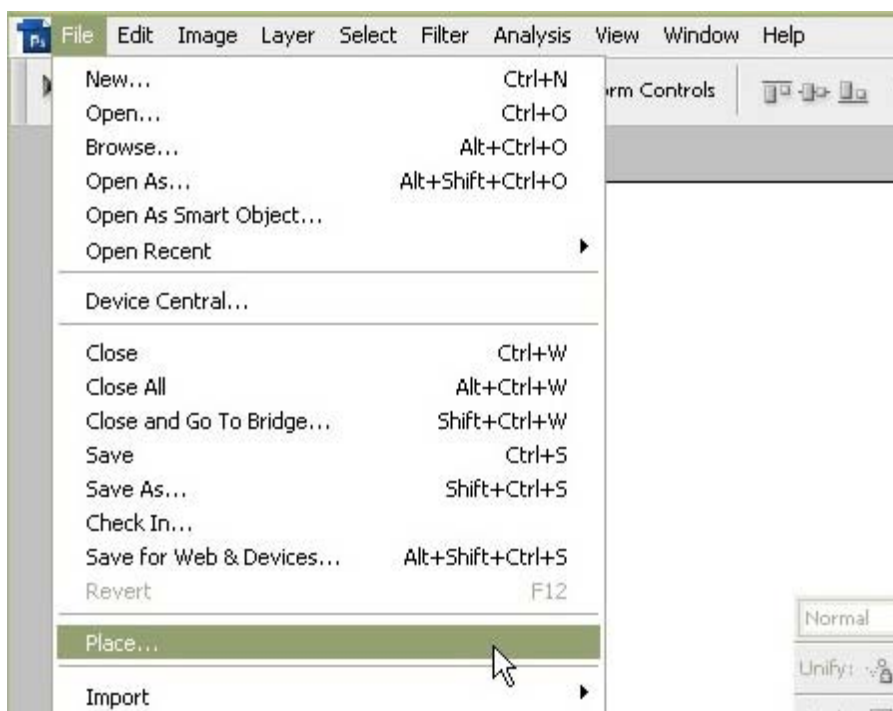
Figure 3.18 importing an image

The displayed image shows the commands for scanning a image in scanner.

3.2.4 Saving Images in Different File Types in Photoshop

The Photoshop software is capable of saving the image file in different format which are listed below:
- **JPEG:** JPEG is the most commonly used format for storing the image file.
- **PSD:** The .PSD (Photoshop Document) format is supported by Photoshop which include mask layers, color spaces, transparency, text, alpha channels, Clipping paths, ICC profiles,

and spot colors, and duotone settings. This format is similar to other formats of Photoshop like .EPS or .GIF which restrict the content of image to be streamlined. The .PSD format of Photoshop id widely used among users of Photoshop and also this format is used by mostly other softwares.

- **GIF:** GIFs is a format of image files that supports both animated and static images. The GIF favors the flat areas of uniform color with well-defined edges. The format can be used for displaying small animations and film clips of low resolution.

3.2.5 Color format

RGB

The RGB system refers to the Red, Green, and Blue color. It is a system which is used to represent the colors to be used in a computer display. The name of the system is comes from the initial letter of the three addictive primary color. Generally the RGB system is applicable in devices like color tv, image scanners, video games, and digital camera.

CMYK

The CMYK stands for cyan, magenta, yellow, and key (black) colors. This color system is generally used in color printing and printing process. This color system works like a invert version of RGB color system. The RGB system is generally used in computer displays while CMYK system is generally used in printed color illustrations (Hard Copy). Though, the intensity of the system is varied by press ans printing service.

3.2.6 The Size and Resolution

Organizing the files and folders from the starting of the project is really important.

You need to save the images in a screen resolution of 72 dpi in order to work with the flash project. The flash project will be based on default size 400 x 550 pixels. It will be helpful, if the size of image is 800 x 600 pixels

- You need to change the size and resolution of your current images
- Click on the image size button from the top menu of Photoshop software.

You are able to change the dimensions and resolution of the image from the appeared image. You need to be ensuring that the Constrain Proportion boxed is selected.

3.2.7 Optimizing your files for Adobe Flash

There are several techniques to optimize and save your file for adobe flash. Below, the simple method is given.

- When you have done the editing of the image in Photoshop, you need to save the current file in .PSD format in order to include the layers etc. But the flash is unable to open the .PSD format file.
- Select the File button from top menu and click on the Save for the web & devises. A new window will be displayed.
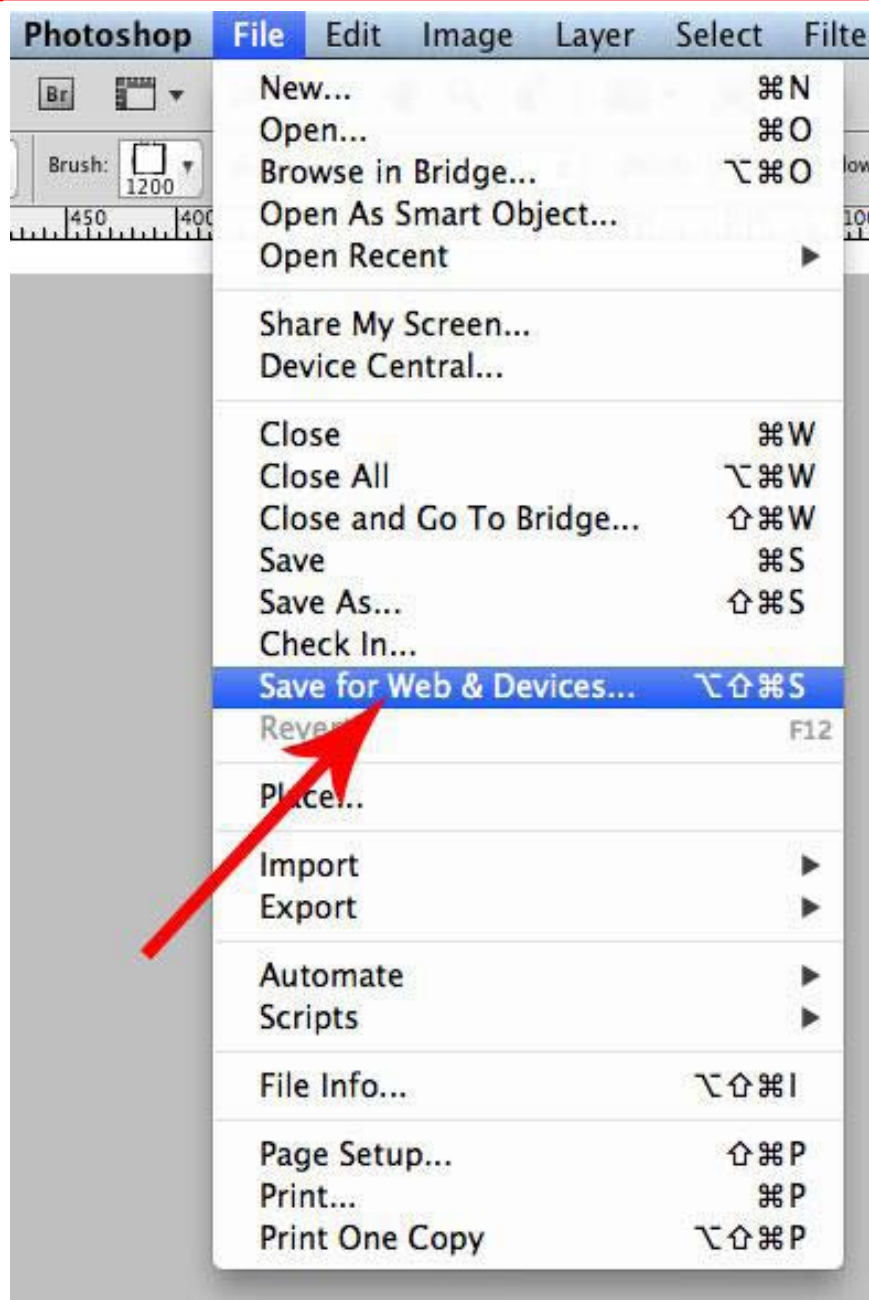
Figure 3.19 Save file

Figure 3.20 Saving file

Click on the desired format to select for image from the right of the dialog box. The two images will be displayed indicating the original image and the new image which will be saved as per color resolution.

Click on the save button after selecting the desired color resolution of the image to the new folder.

NOTE: Click and select the transparency button when the background of the image is transparent. The image will be saved in .GIF format.

Bitmaps
The bitmap is a type of image file format which is used to store the digital images. The meaning of bitmap as per computer programming technology is just a map of bits or a specially mapped array of bits. It is a similar concept as pixmap which can a mapped array of pixels. The images in general may be referred to as a bitmaps or pixmaps, whether synthetic or photographic. Like Photoshop uses bitmaps when importing image file from external sources like digital camera and scanner.

Vector
The Vector option is used to show the graphics of geometrical primitives like lines, points, curves, and shapes or polygon(s), which are based on mathematical equation to show the image in computer graphics. The image in vector graphics is the representation of an array of pixels because it is typically used for showing the photographic images. The use of Vector graphics is efficient and effective. like Flash and Illustrator can both use bitmaps and vector images.

Figure 3.21 Vector

3.2.8 Working with Adobe Illustrator

Convert your bitmaps into vectors

Open the desired format document in Adobe illustrator. You can also open the recent document or create a new file. You can also change the document specification and after changing, click on the OK button.
In Adobe Illustrator the tools, palettes and layout options are similar to Photoshop software. There are some tools by whom you are not familiar.
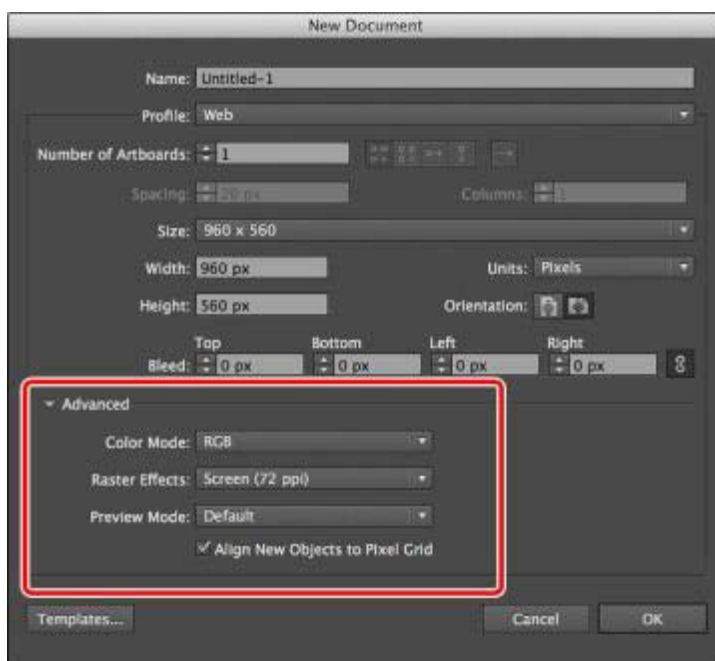
Figure 3.22 (a) Bit map into vector

Click on the Live trace options from the top menu to choose which live trace alternative you would like to select.
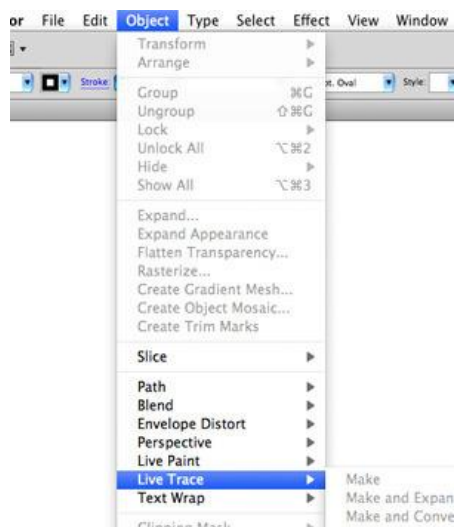
Figure 3.23 (b) Bit map into vector

You can notice the difference on selecting live traces option in the below example:
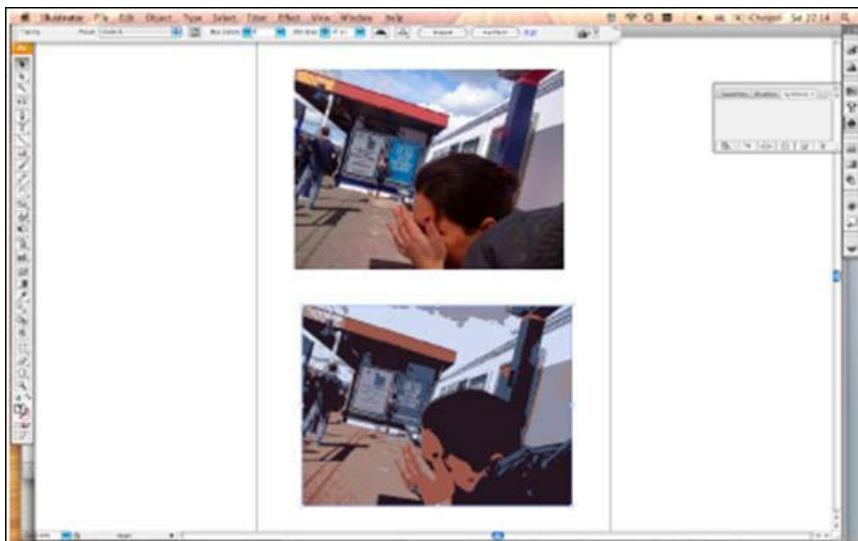
Figure 3.24 Live traces

There are two images are shown in the above frame in which the above image is of Bitmap and the bottom image is a vector graphic. If you want to use the bottom image in flash then you need to copy the image from here and then paste it into the flash. You can also export the image as an *swf file (flash movie) so you can import it to flash later as a flash movie (only one frame).

Fig.3.25: Importing

3.3 Rotoscoping in Adobe Photoshop

In this tutorial we will discuss about the procedure of tracing a frame in Photoshop software.

- Start the Adobe Photoshop software in your PC. The welcome screen will be displayed.

Fig.3.26 Welcome screen of Photoshop

- Click on the File > Import > Video Frames to Layers button from the displayed menu. The open dialog box will be displayed.

- Click on the video file to select. A Import Video To Layer dialog box will be displayed along with several options.
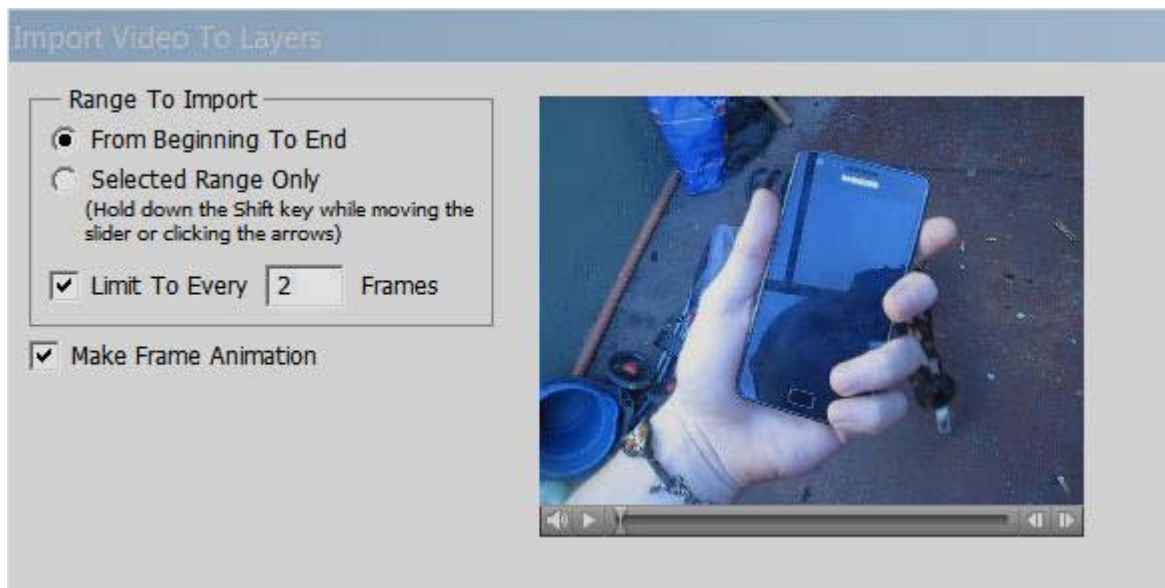
Figure 3.27 Import video to Layer dialog box

- If you have already cropped a part of video for rotoscoping then you can import the whole video otherwise you can just import a selected part of the video.
- Click in the Frames edit box from the dialog box and enter the desired number of frames per second of video. Presume that, the video you have captured is of 24 fps. If you don't limit the number of frames per second then you will have to create 24 frames per second. It is better for animation to work smoothly but you will have to modify 720 frames for rotoscoping which is a time consuming task.
- If you import only 2 frames then you will need to draw half the number of frames which is 12 but the final animation will be less fluidic. The exact number of frames to limit is depends on you.
- Select the Make Frame Animation check box from the dialog box to create the animation. After importing the video, all the video frames were displayed in the animation panel which is placed at in the bottom of software.
- If the animation panel is not displayed then click on the Window > Animation button.
- You will see that each image has a value in seconds which is displayed below the image.
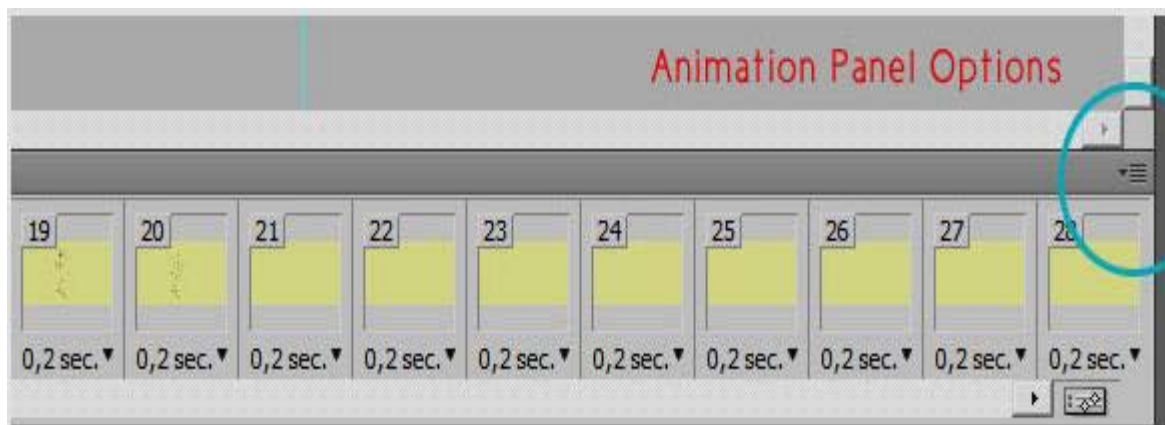
Figure 3.28 Animation panel

- You need to put all the video layers in a layer group for good handling. To select this you will need to click on the upper right button from animation panel and make sure that the "New Layers Visible in All Frames" option is selected.
- Create a new layer group in the Layers Panel, name it as you want and drag all the layers inside it. If you want, you can resize the original video frames by selecting the whole group.
- Now create a Layer Group and call it Rotoscoping or whatever you want. Inside this layer we will create a new layer for each frame of video.
- Now create a third group named "Color" in between the Rotoscoping and Video layer.
- Create a new layer outside the Rotoscoping and video layer groups with the color you want to use as a background color. Later you can hide the background color on export if you want to export a video with an alpha channel.
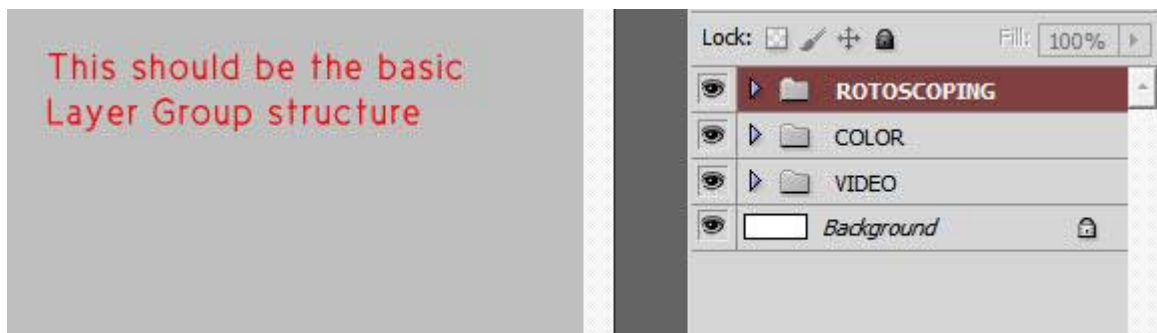
Figure 3.29 Different layers

- Before starting the drawing process of each frame, you need to disable the "New Layers Visible in All Frames" option from the animation panel. By disabling this option , each layer created for rotoscoping will only be visible in selected frame in the Animation panel of Photoshop.
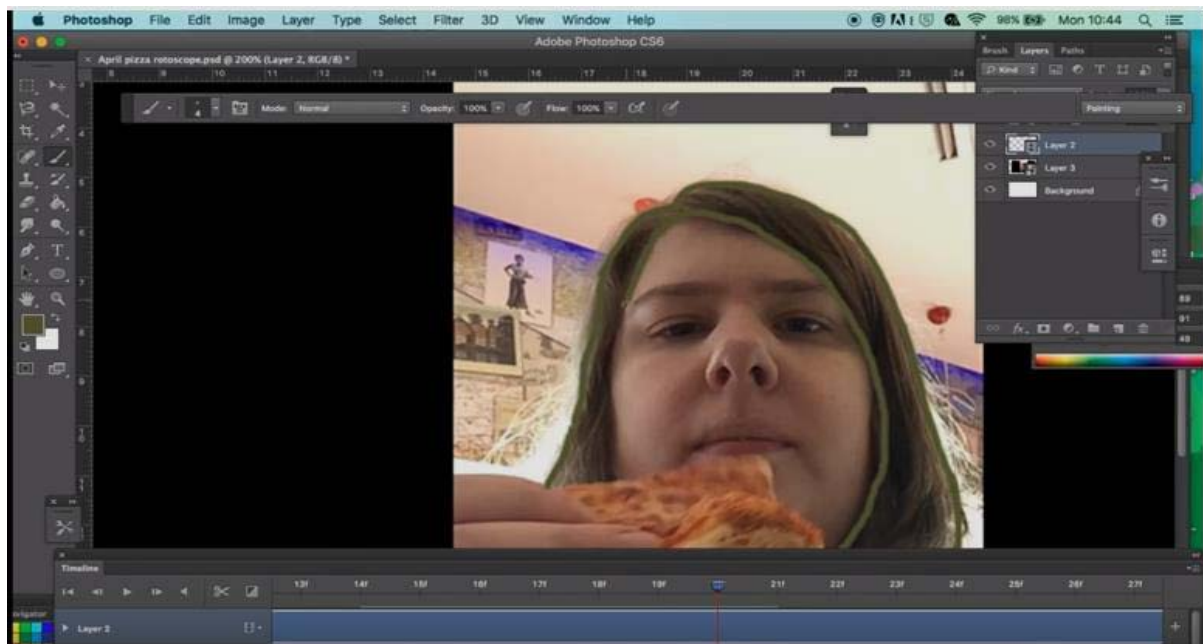
Figure 3.30 tracing the face

- To start the tracing on frame for rotoscoping, you need to create a new layer by clicking on the rotoscoping group in the layers panel of Animation panel.
- Select the desired brush and start tracing or drawing on the first frame.
- After drawing on the first frame repeat the process with the other frames.

Figure 3.31 Traced image

Note: If you are drawing many details in a frame for rotoscoping then you will have to draw them in the succeeding frames.

- You can also hide the Video layer group and play the video of finished frame to check the recently created frames in motion.
- You can easily go back and delete some of the details if you think which are not important but it is good to decide this from start.
- After finishing the drawing all the frames, you can start coloring them. The procedure of coloring is same as the procedure of drawing but this time you need to do this in Color layer group.

Figure 3.32 Coloring drawing for tracing

Figure 3.33 Filling the background color

- You can also color each frame in the Rotoscoping group but it is better to separate the drawing and color frames separated in different groups.

Exporting a video

- Hide the Video group and the background layer, when you have finish rotoscoping and coloring all the frames.
- Click on the File > Export > Render Video button from the Photoshop software and choose the Render options and Format as per your needs.
- After specifying the desired option of render, click on the Render button. Your video file will be rendered as per your specifications.
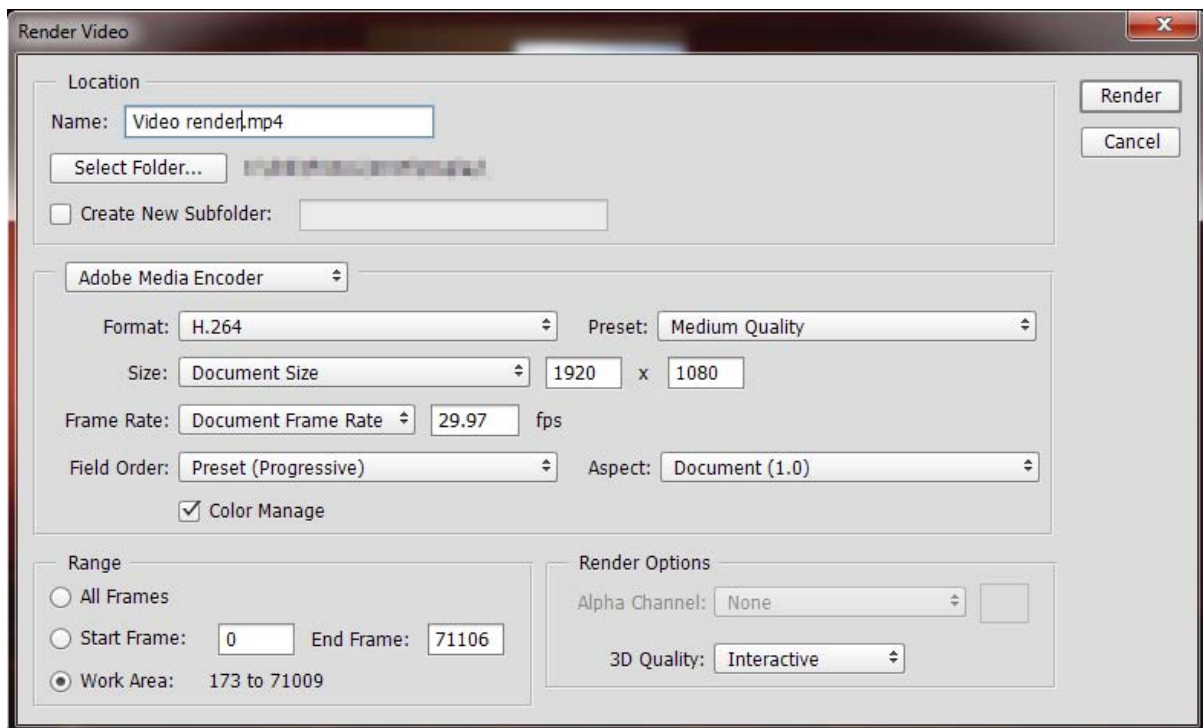
Figure 3.34 Rendering the video file

- You can import the rendered video into After effects for compositing and editing the rotoscope file.

Notes

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Exercise

1. List the material used for Rotoscoping.

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2. What do you mean by History Palette?

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3. What do you mean by layer Palette?

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4. How to import a image/video from digital camera to Photoshop?

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5. What is the difference between RGB and CMYK?

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6. Write the steps of rendering a video from photoshop?

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4. Rotoscoping Footage

Unit 4.1 – Introduction to Rotoscopy

Unit 4.2 – Performing Rotoscopy using Silhouette software

Key Learning Outcomes

At the end of this module, you will be able to:

1. Understand rotoscopy objectives
2. Use the software to break the content down into individual frames in accordance to requirements
3. Ensure that the work-products meet rotoscopy objectives and quality standards and are ready for compositing
4. Gather appropriate reference material and raw footage that can be used as a guide during the process
5. Understand objectives, requirements and specifications from the Director and Producer
6. Present interim and final work-products to the Producer and solicit feedback on areas of improvement

UNIT 4.1: Introduction to Rotoscopy

Unit Objectives ⊚

At the end of this unit, you will be able to:

1. Understand rotoscopy objectives
2. Use the software to break the content down into individual frames in accordance to requirements
3. Ensure that the work-products meet rotoscopy objectives and quality standards and are ready for compositing
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4.1.1 Understanding Rotoscoping

Rotoscoping is a technique of animation in which artist trace over live action in a video. In the, the tracing is done frame by frame for making a animation video. The images of pre-recorded video were projected on a glass panel and re-drawn by the animator.

The equipment used for projection is known as rotoscope. Now a days, the computers are used in place of rotoscope device. In the film industry, the term rotoscoping refers to the technique of manually tracing a sketch over a frame of video so it may be composed over another background.
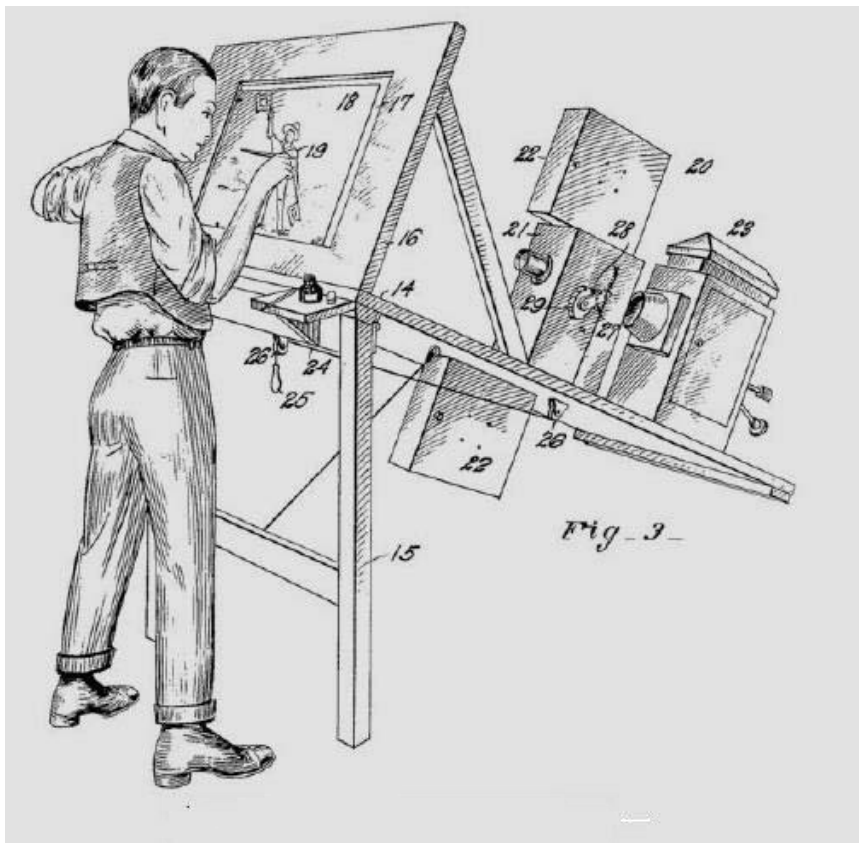
Figure 4.1 A man working on rotoscope

Rotoscoping is a time consuming and manual task. It requires the adjustment of complex shapes to decompose a frame into a scene and then tracing or coloring the frame to match the initial shot. An experienced rotoscope artist can rotoscope an average of 15 – 17 frames per day. The tracing of a frame per day is generally depends on the complexity of the scene. In big budget film or movies, the effect rich shots are regularly rotoscoped for separating the each element ready for compositing. In the conversion of 2D to 3D, all frames needs to be rotoscoped to allocate the depth in the particular scene. The artist working in high-budget film is highly skilled and trained. These artists requires various types of tools for rotoscoping because they are going to draw various shapes and design inside the frame like motion blur or smoke.

4.1.2 Techniques

Rotoscoping is generally used for adding special effects on the action or scene of a movie. By tracing a scene, a silhouette can be created which can be used to create an empty space in the background of a scene. By this method, you can place an object in a scene. The final output of rotoscope may have slight deviation from the actual lines of a scene which differ from frame to frame. When animating the final video, traced or animated lines can shake unnaturally this is also known as "boil". If you want to avoid boil, you will need considerable skills for tracing the scene. Sometimes boil is a stylish technique which is used to emphasize the quality of rotoscoping.

Rotoscoping is also abbreviated as "Roto". It is also used for adding visual effects in live action movies. The blue and green screen techniques have made easier the process of layering the scene, still rotoscoping play a significant role in the production of visual effects representation. Digitally, the rotoscoping is done by motion tracking and onion tracking software. Rotoscoping is also used in the preparation of garbage matter for matte pulling process.
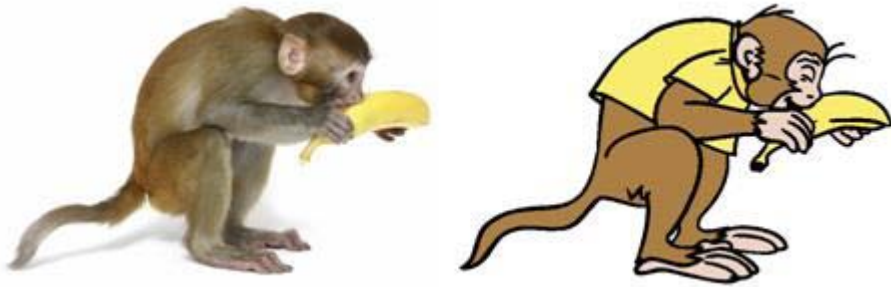
Figure 4.2 A monkey is animated by rotoscoping to be used to achieve the cartoony look.

Some advantages of using rotoscoping technique in the animation project are:

- The motion of object is seems to be realistic.
- The timing of the motion of object will be accurate.
- The animation will maintain its volume and proportion.
- It will help you to learn the process of animation.
- It will help you to understand the technique of brake down a movement.
- It can help you to animate come subtle motions of object like a slight moment of head or hand.

The Analog Rotoscoping technique for visual effects is useful for animation rather the rotoscoping technique is became an important tool for visual effects to be guided by the matte or rotoscoped line. In visual effects, rotoscoping is used to make holdout mattes. You will need to composite different element into the same scene to create the final shot. By using black color tracing, you can control some an element like a scene in which explosion is done behind the people on screen where the explosion scene is added after recording the video.

Figure 4.3 A image prepared for rotoscope

You can print the explosion on the frame after covering the people. Firstly you will need to isolate with the rotoscope. The rotoscope artist will trace the action or moves that had to be isolated into an animation. The outlined traced with the help of required paint so that it would block the appropriate section of frame. When two images are printed together, the people standing in front of explosion will seem like a real scene or shot.

Figure 4.4 Rotoscope explosion behind people

4.1.3 Rotoscope works as stabilizer

Rotoscoping can also be used to stabilize a shaky action image. For stabilizing you will need to rotoscope each frame into an alignment chart. The alignment of the chart should be tracked from frame to frame. With the help of this information, a soft copy of the final video can be made, with the printer offsetting the shifts in each frame's movement.
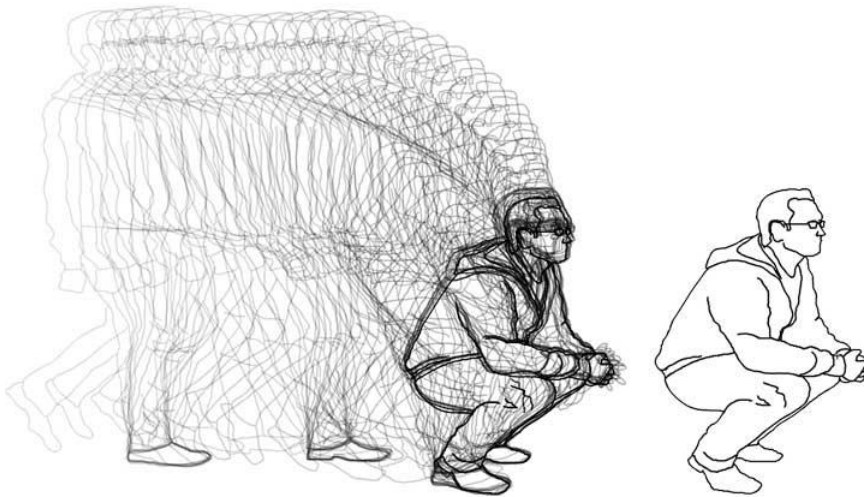
Figure 4.5 Image prepared for rotoscope

4.1.4 Digital Rotoscoping

Now a days, the rotoscoping is done in the computers with the help of some softwares like FFFI, Shake, and pinnacle Commotion. The digitalization of the rotoscoping process is starts in early 1900s with the help of software called Colorbrust which is an image editing tool like Photoshop. With the help of computers and appropriate softwares of rotoscoping, an artist can do the same amount of work that eight artist were used to do and in one forth time. This is because, the traditional rotoscoping, each frame is traced with hands and individually. On the other side, the computers are able to use previous frame as a basis due to which most of the drawing may already be done.
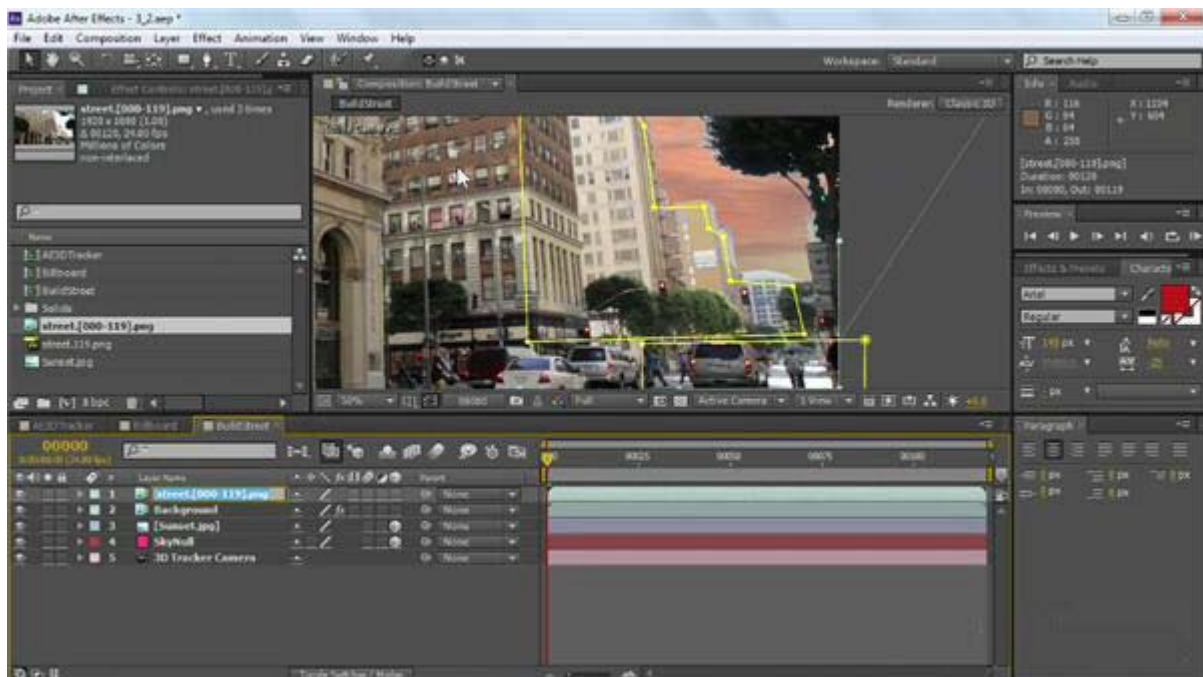
Figure 4.6 Digital rotoscoping

The working principle of Rotoscoping software is using splines which are a series of points connected by a curve or line. These splines are modified or adjusted in each frame so that they continue to coordinate with the tracing of a rotoscoping artist. The rotoscoping software includes the tools used for tracing like image painting tools. The rotoscope artist needs to paint a lots of image for a fluidic animation. These painting include replacing a sky, removing someone out of the shots or painting a tennis ball which is used as tracking marker for visual effects.

Figure 4.7 Tracing splines

UNIT 4.2: Performing Rotoscopy using Silhouette software

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Understand rotoscopy objectives
2. Use the software to break the content down into individual frames in accordance to requirements
3. Ensure that the work-products meet rotoscopy objectives and quality standards and are ready for compositing
4. Gather appropriate reference material and raw footage that can be used as a guide during the process
5. Understand objectives, requirements and specifications from the Director and Producer
6. Present interim and final work-products to the Producer and solicit feedback on areas of improvement

4.2.1 Understanding Silhouette Software

Silhouette is software program generally designed to make rotoscoping easier process. Rotoscoping process involve cutting out a subject from the background of the original video clip and then replacing with a new one. This process is little bit boring because you need to change or draw the image in each frame of video but with the help of Silhouette software it become less boring.

Figure 4.2.1 Silhouette fx software

The Silhouette software is able to quickly create or draw sophisticated animated mattes using B-Spline or X-Spline shapes. The intelligent design and easy to use tools like variable edges softness on

point basis and realistic motion blur can help you in created complicated shapes of animations. The integrated motion tracking feature of silhouette software makes the tedious task to a normal one.

Some important feature of Silhouette software

- Unlimited number of animated , X-spline, B-Spline or Bézier shapes.
- The stereo rotoscoping tools and workflow.
- The integrated motion tracker feature which is able to apply the motion data to shapes and points.
- Support for closed and open shapes.
- The planer tracker feature which provides automatic, marker less motion tracking and analysis.
- Inverse kinematics for animating humans, animal, and other creatures.
- Scale, move, rotate, shear, and corner-pin shapes and group of shapes.
- The variable softness of point to point.
- The realistic motions blur.
- Independent shape hiding and viewing.
- Preview shape animation over image
- Composite preview and rendering
- Shape export and import.
- Support for video fields and 3:2 Pulldown
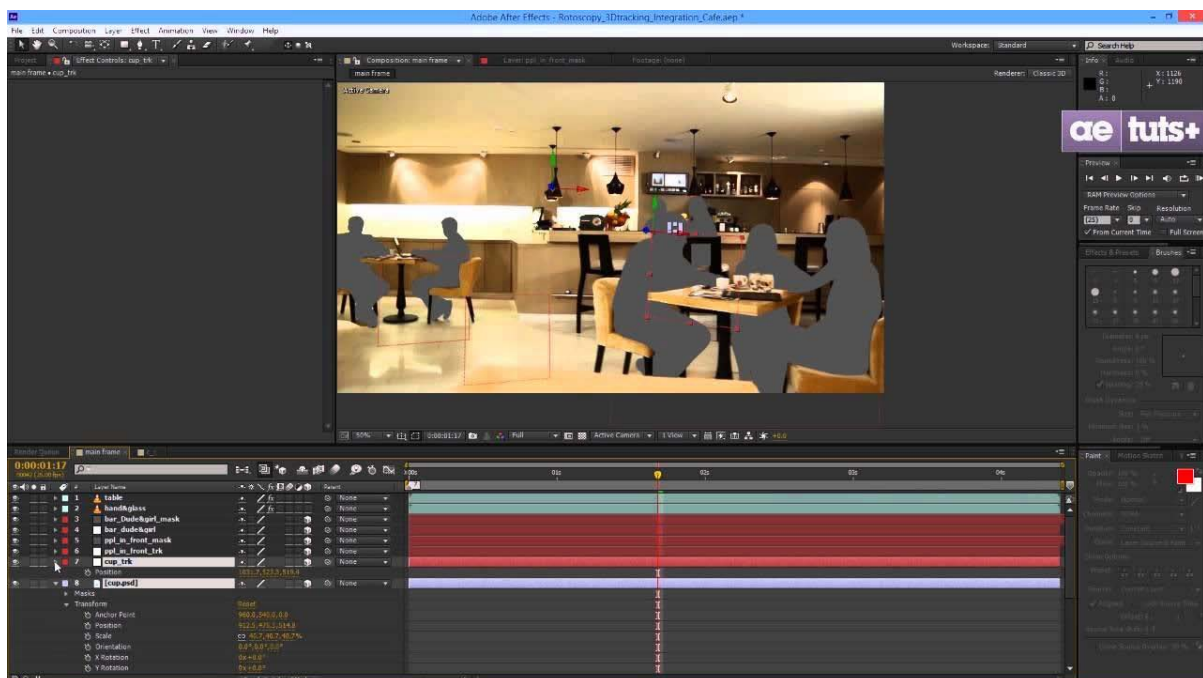
Figure 4.2.2 Rotoscoping using silhouette feature

Tracker

Tracking is a technique which is used to track the motion of an image with respect to time. In silhouette software, the tracking of a image is automatically done with the help of Planer tracking and Point tracking which can utilize up to four track points. The Silhouette software includes two planer trackers which are Imagineer's mocha Planer Tracker and Silhouette's Planer Tracker.

Planer Tracking

The Silhouette Planer Tracker feature automatically tracks and generates several points on the image while handling partial occlusions of the tracked image or object.

The Imagineer's Planer Tracker feature provides the 2D transformation data to the user by tracking planes rather than points.
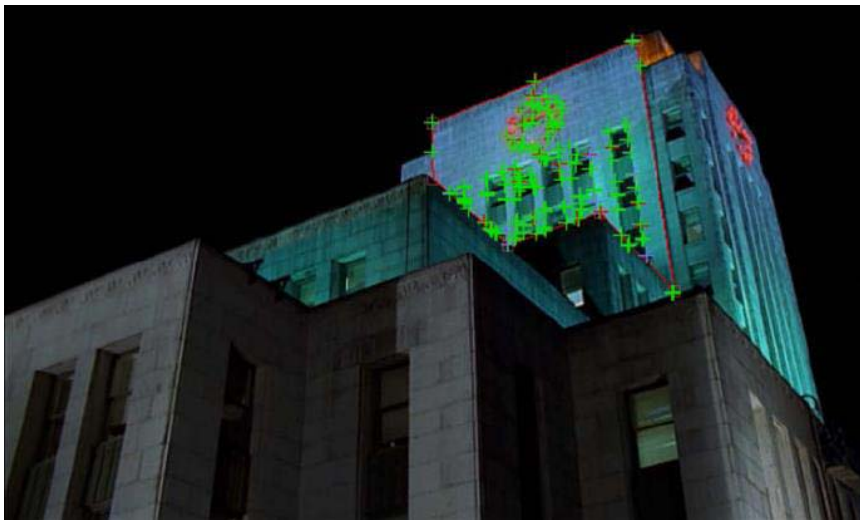
Figure 4.2.3 Planer Tracking

Point Tracker

The point tracker feature is used manually or for individual tracking. This feature is used to track dissimilar points from the image.
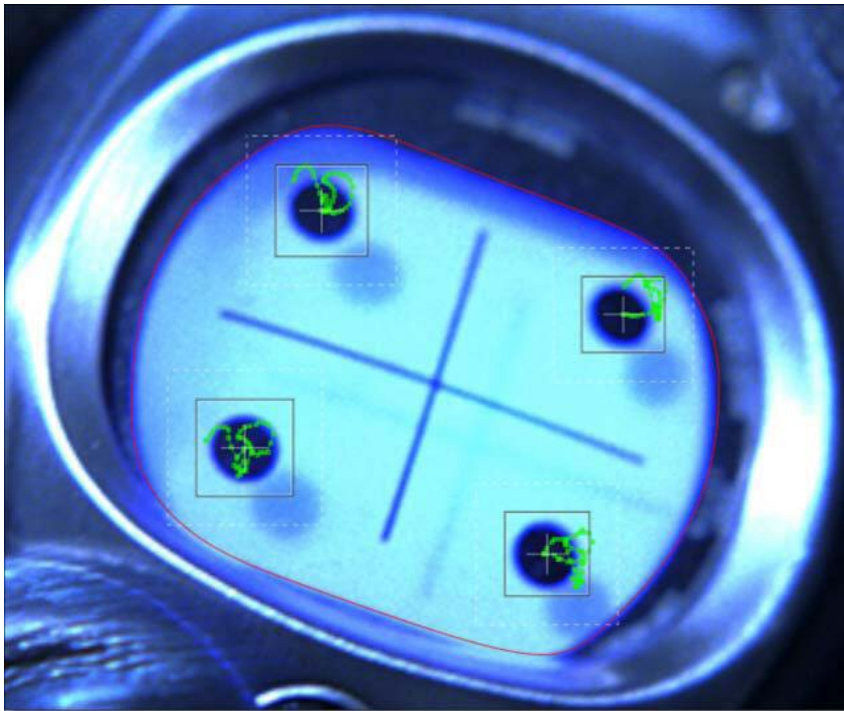
Figure 4.2.4 Point Tracker

Tracker Features

- The planer tracking is done with the help of Silhouette's Planer Tracker or Imageneer's mocha Planer tracker.
- The planer tracking feature give markerless, automatic motion analysis and tracking of the desired motion.
- You can track unlimited points manually.
- Tracker export to popular formats but mocha planer tracking data cannot be exported.
- The Post-Processing tracking data of a point includes : Average, Smooth, and Merge.

Paint

Paint is a system which has high dynamic range, non-destructive, and 2D paint feature. It is designed to meet the demands of television industry and film production industry. It is highly used in image restoration process, dust busting, rig and wire removal and simple paint. The Silhouette software provides sensible and simple tools to do the work as fast as possible.

When you use the feature of paint, all the action were recorded as events. These events could be restored in the same frame, different frame, multiple frames. This feature is very versatile and flexible of a vector paint system with the speed of a raster paint system.
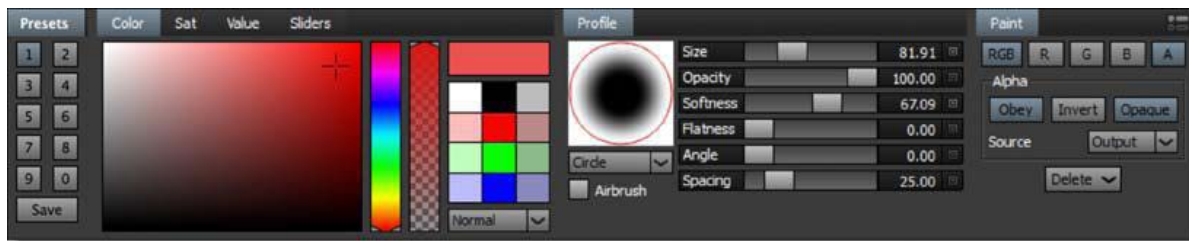
Figure 4.2.5 Point tools

Some Feature of paint:

- The availability of various color brush like Blue, black, white, Blur, Blemish, clone, color correct, Drag, Eraser, Mosaic, Repair and scatter brushes.
- Paint events recorded automatically with the selective stroke playback.
- The cloning interface is refined.
- The clones sources and paint strokes will be tracked.
- Motion track, scale, rotate, position, and corner pin clone sources.
- Using an adjustable keyframeable interocular offset, you can paint right and left stereo images together.
- The clone surfaces can be blur, correct, or sharpen.
- You can use Align tools and onion-skin to match up with the elements.
- The preset option which is used to store brushes and their previous settings.

Warps and Morphs

The Silhouette software provide a fully-featured shape based image warping and morphing system which provide the good control and quality to the image or frame. The image morphing and warping process can be done on still images or image sequences.

Warping is a process used for enhancing facial features, adjusting size of the image, create talking creatures, or any other transformation related to the image of object.

Morphing is a process generally used to transform one object to another. It is also used to transform a live action to computer generated object and vice versa.

Figure 4.2.6 Morphing and Wraping

Some feature of Morph

- Able to morph or distort images and sequences
- It can do shape based morphing
- It can transform the image on the basis of layer by layer
- The control over depth or folding
- The interactive preview of image
- The integrated motion tracking feature

Keying and Matting

The Silhouette keyer and Power matte module are able to extract a image simply and quickly. These features can even extract the images like fine hair detailing, smoke, or reflections. These tools are easy to operate but needed various different tools when faced with good and bad shots.
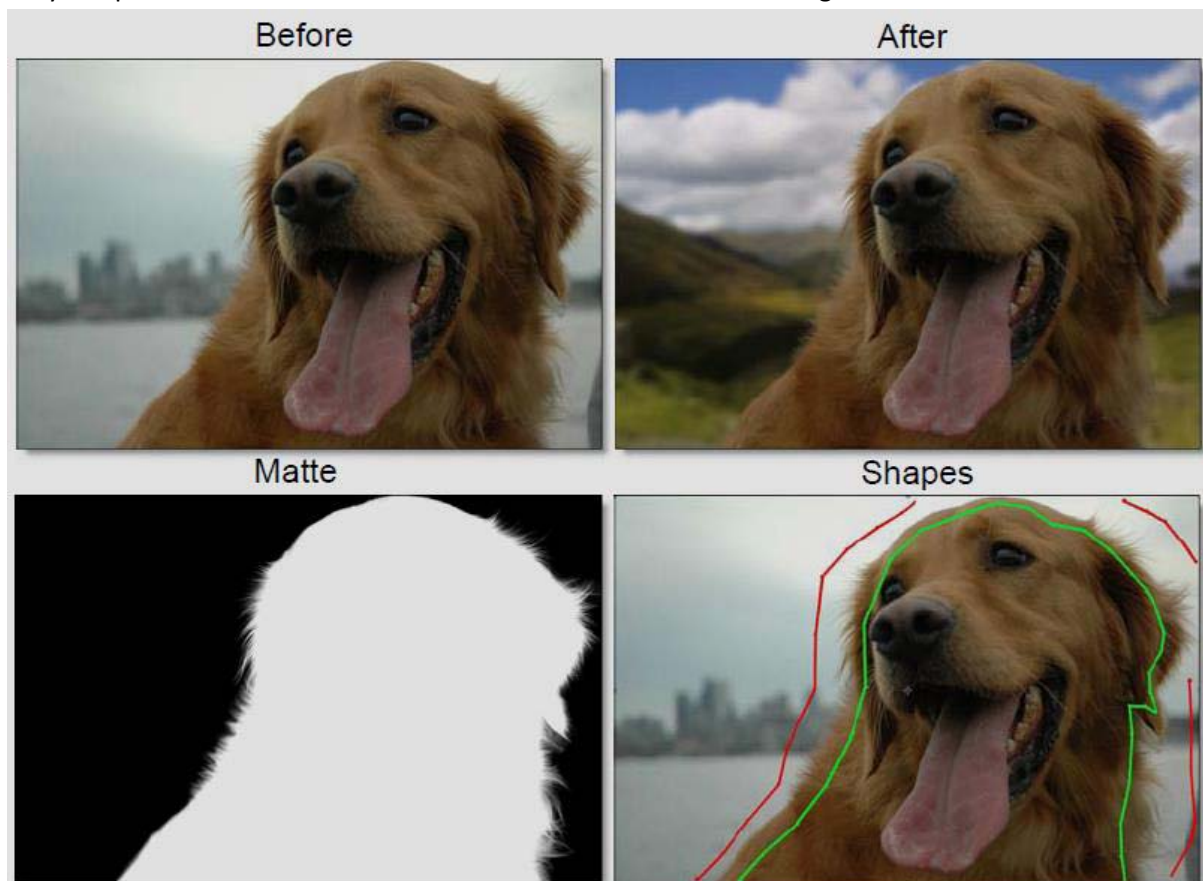
Figure 4.2.7 Keying and Matting

Some Keying Feature

- The matting tools able to extract the whole object in a image.
- Able to create multiple matte creation.
- Sophisticated matte manipulation.
- Color suppression
- Able to generate matte without use of blue or green screens.

S3D

The S3D is an optional feature of silhouette software. It contains tools used for conversion of 2D-3D for stereoscopic and auto-stereoscopic productions. It contains the algorithm and technology from 3D Impact Media's Reality Tools Product.
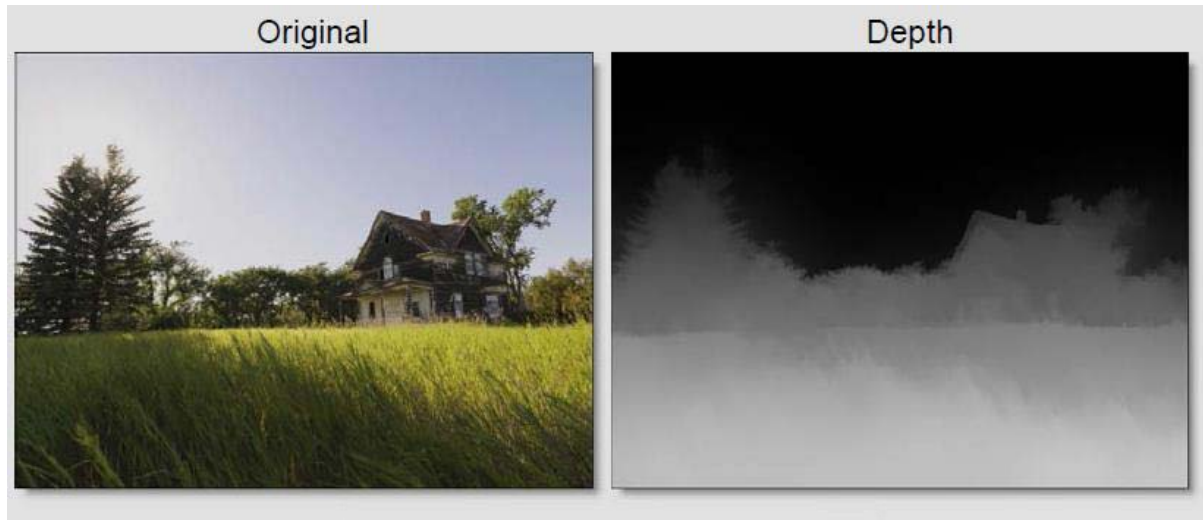
Figure 4.2.8 The S3D effect

Some features of S3D

- Availability of gradient depth tools like Horizon, Hall, Ramp, and Tunnel.
- The individual depth value can be assigned to the shapes.
- The adaptive tool which can refine the depth map by adding edge detail.
- Stereo Histogram display of the depth map
- Output for auto-stereo, multi-view and plain stereo displays

Effects

The effects option of Silhouette software allows us to apply the brushes available in paint node on shapes and layers as filter effects. The paint and shape features are integrated to form an powerful shape based Effects tool. The filters can be animated and combined with shapes for making a final output.

Some Effects Features

- Able to apply scratch filters like Blue, black, white, Blur, Blemish, color correct, Grain
- You can assign filters to layers and shapes.
- You can animate filter parameters.

Figure 4.2.9 The effects

Tutorial: Hair Rotoscoping

In this tutorial we will learn the procedure of hair rotoscoping in Silhouette software.

- Double-click on the Silhouette software from the desktop or select from the Start menu. The welcome screen of Silhouette will be displayed.
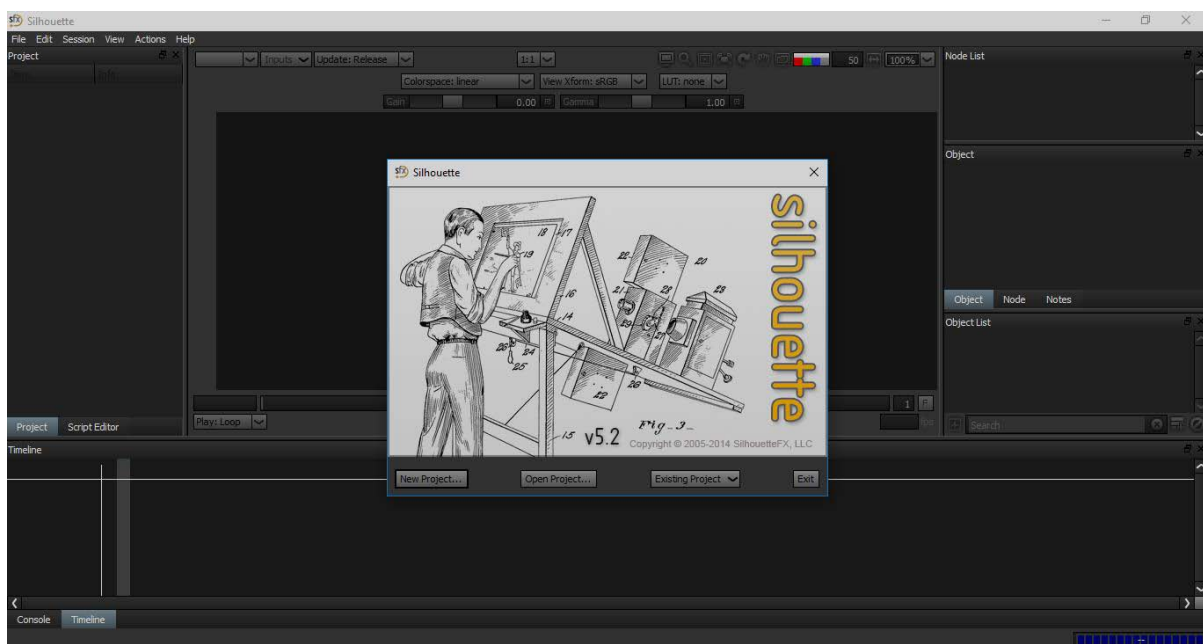
Figure 4.2.10 Welcome Screen of Silhouette

- Click on the New Project button to create the new project.
- Click on the Open Project button to open the previous project.
- If you want to open the current existing project then click on the Existing Project button and select the desired project.
- In this tutorial we will create a new project so click on the New Project button. The New Project dialog box will be displayed.
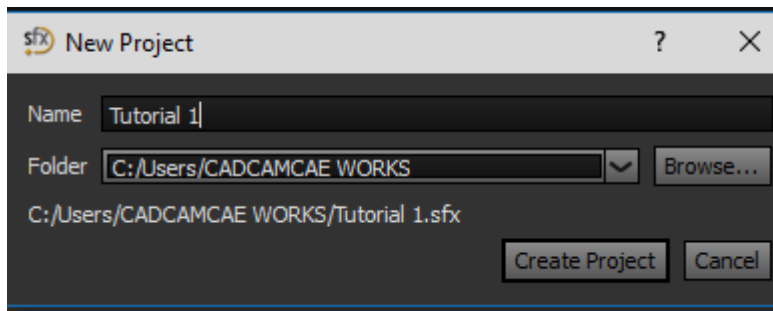
Figure 4.2.11 New Project dialog box

- Enter the desired name in Name dialog box.
- Click on the Browse button and select the destination folder for saving the project.
- After specifying the parameters for project, click on the Create Project button. The project named Tutorial 1 will created and displayed on the Title bar.
- Click on the File > Import > Media button. The Import media dialog box will be displayed. You need to select the files for rotoscoping. If you want to rotoscope a video clip then firstly you will be needed to convert the video in image at 12-10 fps per second with the help of external softwares like Adobe Premier.
- You need to select all the images in Import media dialog box and click Open to select.
- The media will be imported in Silhouette software.
- Click on the Session > New Session button from the menu bar. The New Session dialog box will be displayed.
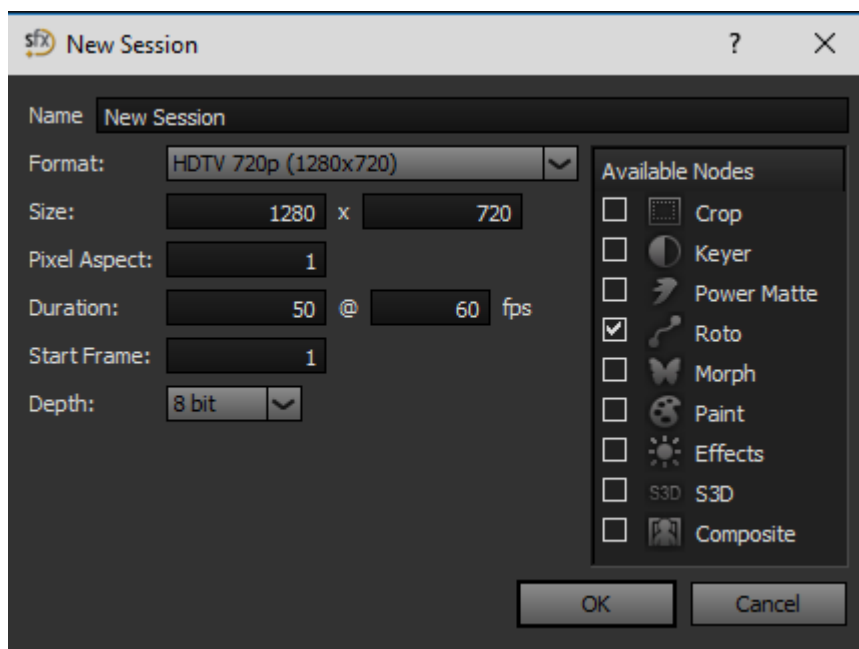
Figure 4.2.12 The New Session dialog box

- Click in the Name edit box and enter the desired name of new session.
- Click on the Roto check box from Available Nodes section for rotoscoping. Specify the required format of New Session dialog box.
- After specifying click on the OK button. The new session will be created and displayed. The imported media will be displayed.
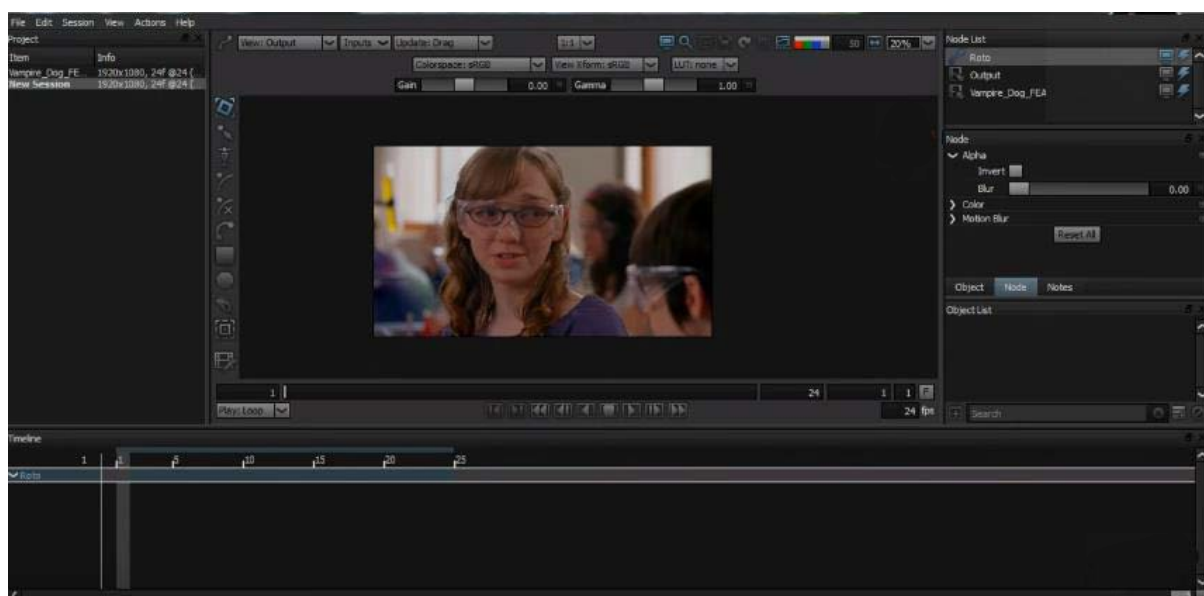
Figure 4.2.13 Added Footage

- In this footage we are going to learn the tracing of hair with the help of Silhouette.
- This clip consists of 24 frames but we will work on some initial frames.

- Firstly we will trace the left side of hair. To trace, you need to select the any one spline from three splines.
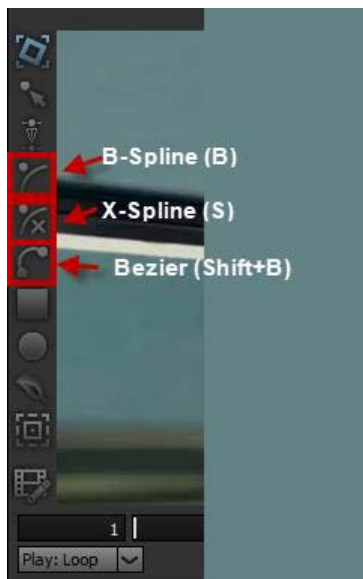
Figure 4.2.14 Selecting Spline

- In our case we are selecting X-Spline (S) for tracing. With the use of spline trace a small area of hair.
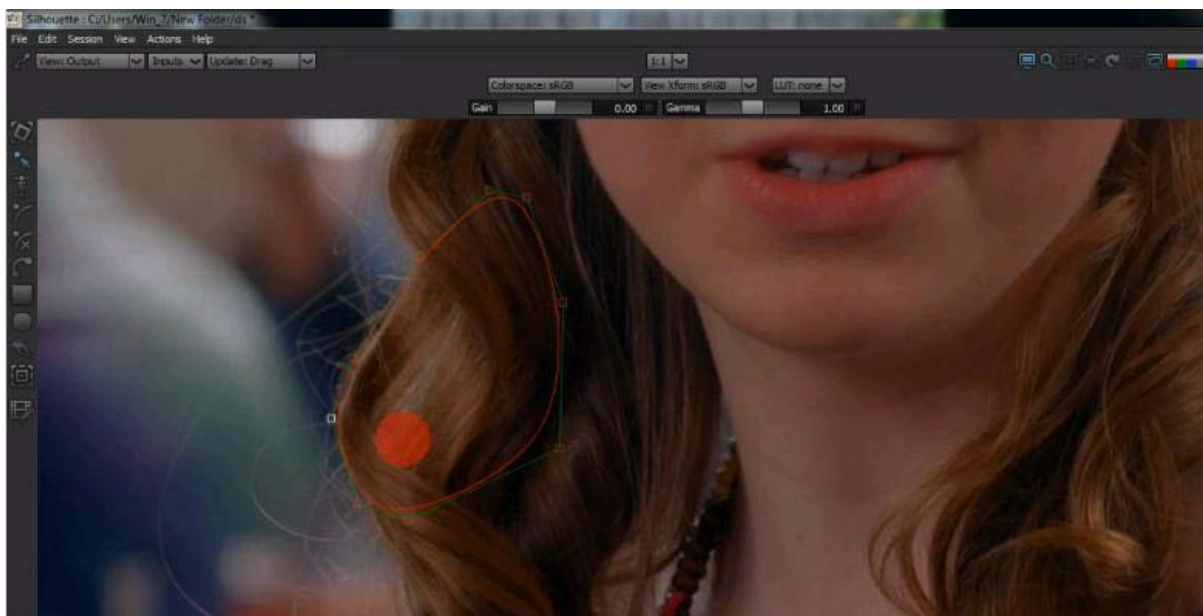
Figure 4.2.15 Tracing a small area of hair

- If you want to add a vertex in the pre created spline then press CTRL+ALT+ Left key of mouse. The vertex will be added in the spline.
- You will need to trace the hair exactly with the help of adding vertex and moving the previous vertexes.

- Select the tracing by creating a selection box on it and press the Shift key or CTRL key+ Left or Right arrow key of mouse to move. Shift key is able to move the selected points rapidly and CTRL key is able to move the selection points slowly.
- After tracing a small area of hair, repeat this procedure with other frames. You need to set the vertex points for the other frame on the same part of image.
- Now, track a hair of the frame with the use of splines. In this, do not close the tracing line or object.
- After tracing a part, maintain it with the use of Reshape button from Toolbar.
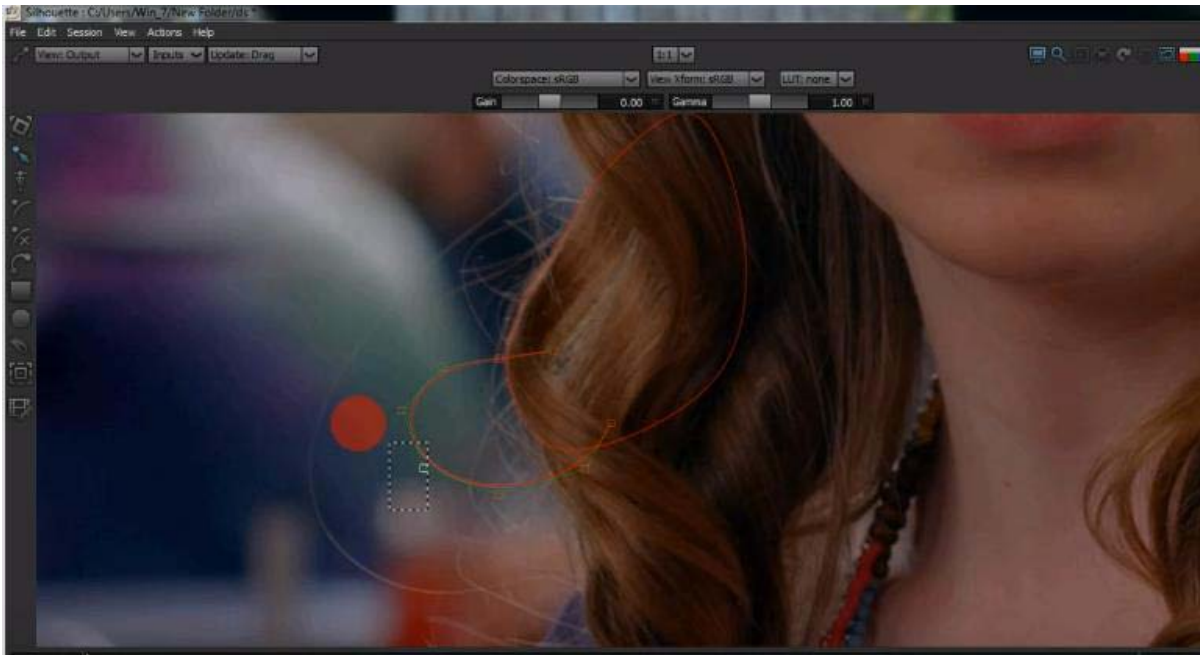
Figure 4.2.16 Tracing hair

- To view the traced part, click on the Composite button from View drop-down. The traced part will be displayed.
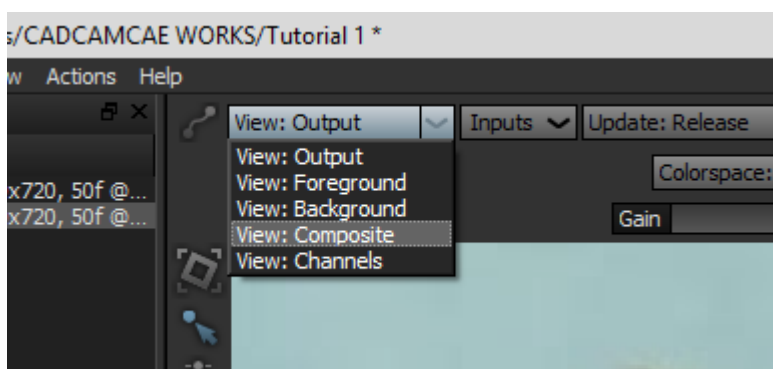
Figure 4.2.17 Selecting Composite button
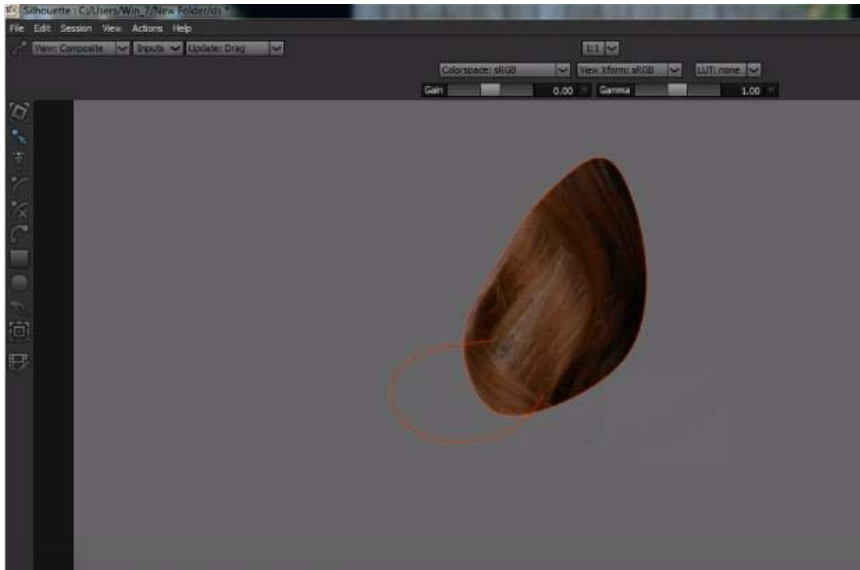
Figure 4.2.18 Composite View

- Similarly maintain this tracing on all the frames of your video.
- Now, repeat the process of tracing a bunch of hair with the same method as discussed earlier.

Figure 4.2.19 Creating splines

- After tracing a bunch of hair, click on the Composite button to view the tracing. The tracing of hair is not visible in the Composite view.

Figure 4.2.20 Composite view

- To view the tracing, you need to click on the hair. The object properties will be displayed at the right of Silhouette software.
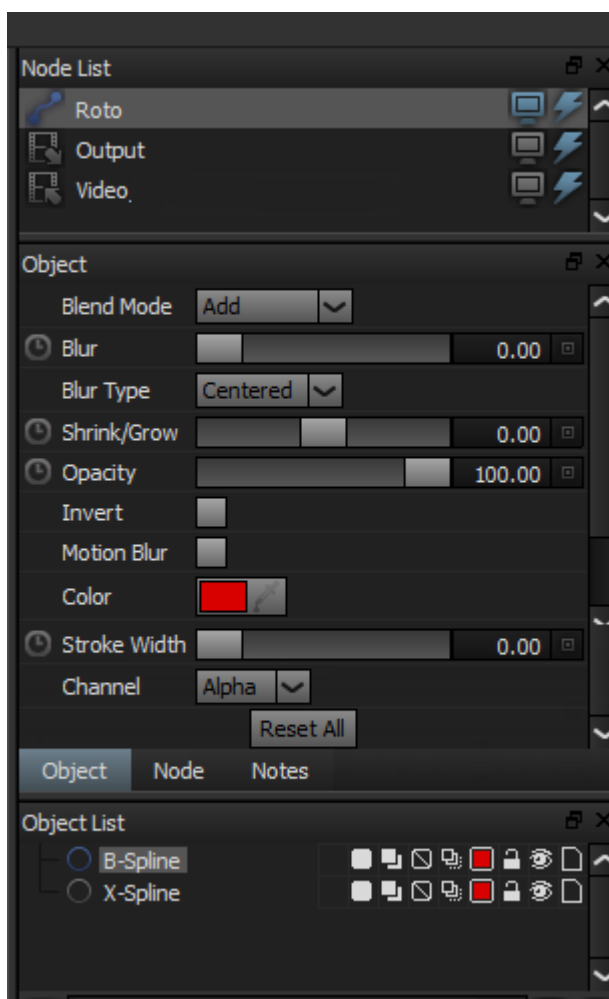
Figure 4.2.20 Parameters of spline

- These all parameters are related to the selected spline. To view the selected spline, click on the Stroke Width edit box and enter the value as 1 in place of 0.00.
- Similarly adjust this setting with the remaining splines.
- Now select the composite view option, all the area which was covered by spline will be displayed.
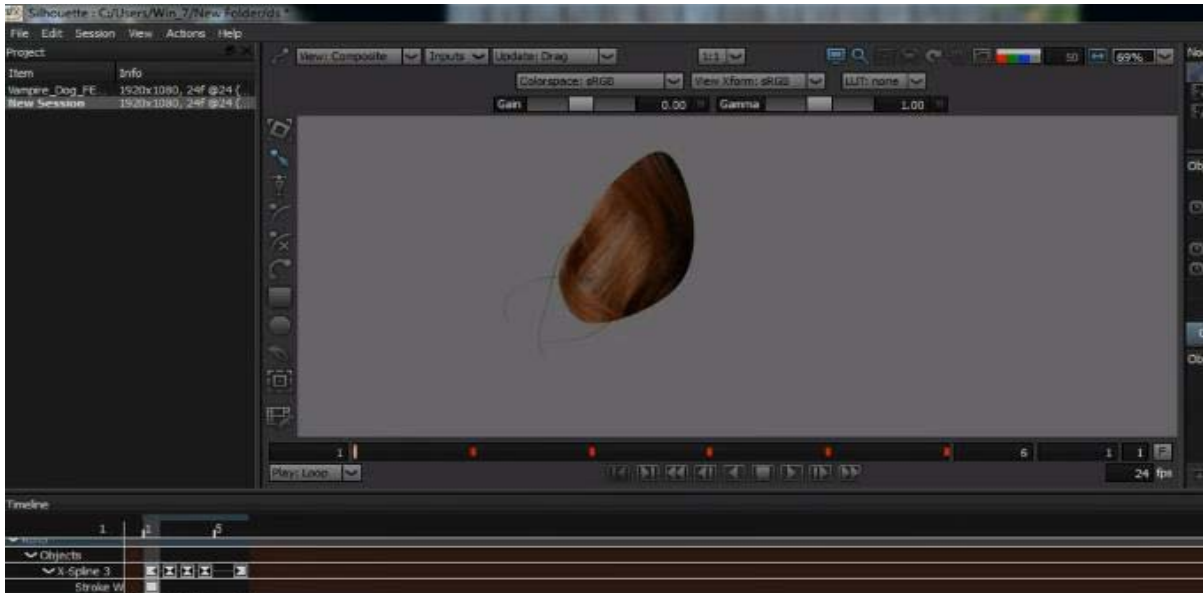
Figure 4.2.21 Displayed spline.

- If the displayed hair is thin then increase the value of stroke width. The splines will be displayed clearly.
- You can also set other parameters for your frame as per your need.
- Similarly, repeat the process of tracing the hair with all frame to make a motion picture.
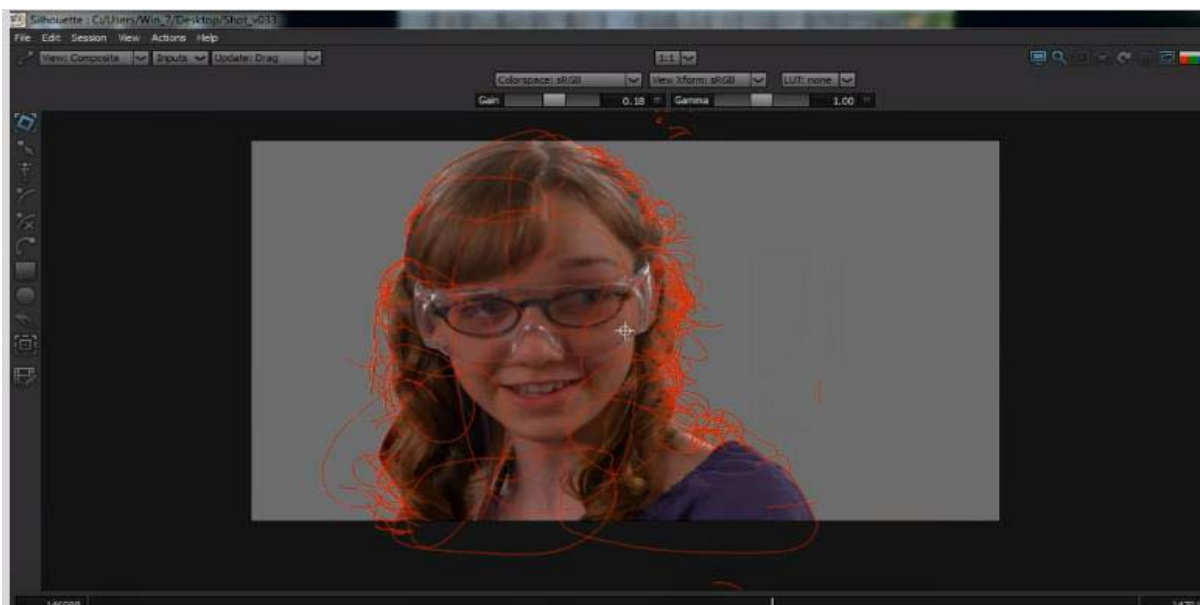
Figure 4.2.22 Completed tracing of object

Exercise

1. What is Rotscope?

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2. What are the advantages of using rotoscoping technique?

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3. What is the use of Silhouette software in Rotoscoping?

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4. What do you mean by Planer and Point tracker?

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5. What do you mean by Morphing and Warping?

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6. What do you mean by S3D?

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5. Health & Safety

Comply with Workplace

Unit 5.1 – Safety, Health, and Hygiene

Unit 5.2 – First Aid

Key Learning Outcomes

At the end of this module, you will be able to:

1. Observing and understand the current health, safety, security policiesa and procedure of organization.
2. Understand the safe working practices pertaining to own occupation.
3. Understand the government rules and policies related to the health and safety including emergency procedures for accidents, illness, fires or others.
4. Identifying the person responsible for health and safety in the working area, including those person whom to contact in emergency.
5. Identifying the security signals in the workplace fire alarms, staircases, fire warden stations, first aid and medical rooms.
6. Identifying the possible work hazards in the working area which can cause risk to others health and safety.
7. Ensuring own and others health and safety in the workplace through precautionary measures.
8. Identify and recommend the basic terms and opportunities to the designated person of your workplace for improving health, safety, and security.
9. Identify and correct the cause of accidents, illness, and fires in your working area and within the limits of individual's authority.

UNIT 5.1: Maintain Workplace Health and Safety

Unit Objectives

At the end of this unit, you will be able to:

1. Observing and understand the current health, safety, security policiesa and procedure of organization.
2. 2. Ensuring own and others health and safety in the workplace through precautionary measures.
3. 3. Identify and recommend the basic terms and opportunities to the designated person of your workplace for improving health, safety, and security.

5.1.1 Introduction:

Emergency evacuation is needed when staying within the building not safe anymore. Every organization has an evacuation procedure. Every organization has a safe place within the organization compound or outside the organization compound where all employees are expected to assemble in case of an emergency evacuation. The team leader guides the team and takes them to safe place. It is very important in these cases, to assemble at the safe area immediately.

If you do not reach the safe area on time, the team leader who is responsible for your safety will send someone to look for you. This will put the other person's life in danger.

Conditions for Evacuation

Emergencies which require immediate evacuation includes:
- Explosions
- Fires
- Earthquakes
- Hurricanes
- Floods
- Workplace violence
- Toxic material releases
- Tornadoes
- Civil disturbances

Every company has:
- **An evacuation policy.** All the TLs are responsible for informing their employees about it. When the TL is informing you about these details, pay attention. This negligence could cost lives.
- **A designated place for emergencies.** Ensure that you know where it is.
- **A "buddy system" for individuals with special needs or disabilities.** If you are a buddy to someone, ensure that your buddy is safely out of the premises with you.
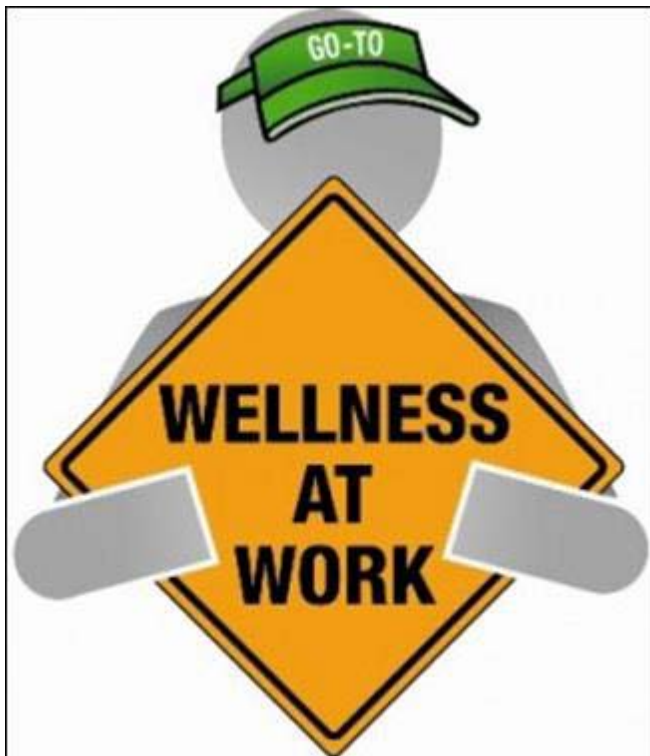
Figure 5.1.1 Conditions for evacuation

- **Floor plans with evacuation routes in work areas.** Ensure that you understand it so that you can use it in time of need.
- **Assembly areas.** These are the areas where you are required to assemble after evacuation.
- **Periodic evacuation drills.** Ensure that you pay attention during those drills. You need to save your life and you can be helpful in saving someone else's life too.

5.1.2 Mock Drills/ Evacuations

The responsibility of the safety of the workers in case of emergency is on the fire safety and evacuation workers. These workers need to go through the training to know the duties and responsibilities. In a workplace, the practice drill should be done in every 3 months under simulated fire conditions so that the workers know the techniques of saving their and other life. By practicing in the fire drills, all the workers area able to know the lifesaving method required in case of emergency.

Fare the exercises designed check the staff response as per emergency. It is also a test of the emergency staff, working staff and other members of fire safety department. Sometime the drill is not successful but that's okay because human learn from previous mistakes. But it is important for all the members that they correct their mistake on time. Sometime all the mistakes were not done by the members of staff, the mistake is done the faulty equipment and safety plans. But, there is a need of staff training periodically.

Figure 5.1.2 Mock Drills

There are two vital components for preparing the fire safety plan which are written below:
1.   An emergency action plan, which tells the procedure to be optimize in case of emergency.
2.   A fire prevention plan, which tells the methods to be optimize to cool the fire as soon as possible.

You need to participant in arranged by organization for your personal safety and also for others safety. These drills help you in understanding the

Fire safety and evacuation plans sketch staff duties and accountabilities in time of emergency. Continuing training is required to help safeguard that the employees are conscious of those duties and responsibilities. Firefighting trainings serve as an prospect for staff members to validate, under replicated fire conditions, that they can perform those duties and responsibilities safely and efficiently. It's also a time for the workers or employee to demonstrate about the defend-in-place strategies and also the workers are able to take advantage of facility's fire protection features and exit facilities to protect the people in their care.

Fare excellent exercise designed to evaluate staff response to a replicated emergency. The fare is also a test of facility's fire safety/evacuation strategies and staff training programs. It is not essential that all frun smoothly. That's okay, so long as staff and the organization understand from them and correct mistakes made. It's vital, therefore, that there be a analysis of each drill so that any problems met can be addressed. Perhaps the problems are due to unfinished or out-dated fire safety/emigration plans. Perhaps there's a need for further training of staff.

The two essential components of a fire preparedness plan are the following:
1.   An emergency action plan, which details what to do when a fire occurs.
2.   A fire prevention plan, which describes what to do to prevent a fire from occurring.

5.1.3 Medical Emergencies

Everyone plans for emergencies. That is the reason why we keep a first aid kit with ourselves. At work, however one is exposed to a lot of stress and physical activity. This could lead to certain medical emergencies. It's better to be prepared with the first aid measures and knowledge of implementing them on ourselves and on others. This module equips you with that information. Pay

attention to these medical emergency procedures to understand how to conduct you in theses crucial movements. Pay attention during these sessions. You might be able to save your own and your friend lives.

5.1.3.1 In case of Medical Emergency

A medical emergency is a situation in which a worker met in accident and needs medical help. The medical injury may be severe or life threating. Some situation where:

- Person is not inhaling
- Heart attack or stock
- Heavy or severe bleeding
- Electric Shock
- In case of Poisoning
- Person get somebody Burns

In case of medical emergency, the person or victim requires the immediate help. Sometime the person need attention before the you call the emergency helpline.

It is important to know or remember the number of emergency helpline or Emergency Medical Service (EMS) for the safety of self and other workers.

DON'T

- Let the victim to eat or drink anything.
- Confine the victim
- splash any fluid on victim face or on injury.
- shift the victim to another area or place unless it is the only way to protect the victim.

Bleeding

- Apply any type of pressure on the wound of victim with the help of bandage or any other means.
- Elevate the wound to slow the bleeding.
- When necessary, apply the pressure on pressure points near wound to block excess bleeding.

Fainting

- Fainting is a loss of consciousness which is due to temporary reduction flow of blood in the victim's brain.
- The unconsciouness of the victim may led to more injury in the workplace.
- Slow pulse of the victim.
- The pale, cold skin and sweating of the victim.

Causes of fainting:

- Eating or drinking lack of fluids which is also known as dehydration.
- The low blood pressure of victim.
- Due to lack of sleep.
- Over exhaustion of the worker

First Aid for Fainting:
- Lie down the victim on the back and raise the legs above his heart level.
- Ensure the clearance of victim's nose.
- Check for indication of coughing, or breathing problem.
- Loose the tight cloths like neck ties, collars, and belts.
- If the victim remains unconscious from the 1 minute, call the EMS as soon as possible.

Shock

The shock occurs in the human body on the failure of circulatory system. When insufficient amount of oxygen is reached in the body tissue, the shocks also occur. This condition is treated as soon as possible if not, it may lead to organ failure, and may cause death. Shock becomes worse by fear and pain of victim.

First Aid for shock:
- If possible, keep the victims in lying down position.
- Raise the legs 10-12 inches from the ground level unless you suspect a injury in back and bone.
- If the victim is feeling cold then cover him. If the victim is feeling hot then don't make suffocation by covering him.
- If the victim starts vomiting then move the victim to the suitable place.
- Loosen the tight clothing.

Muscle Cramps
- Stretch out the affected muscle of the victim to counterbalance the cramp part of the body.
- Firmly massage the cramped muscle.
- Apply some kind of moist heat on the affected area.
- If the cramp remains in the muscle, get medical help as soon as possible.
- Rest- avoids movements and activities that cause pain.
- Apply the ice on the cramped muscle it may reduce the pain and swelling of the muscle.
- Applying the light compression like elastic bandage on the affected area may reduce the swelling.
- Raising the affected area above the heart level may reduce the swelling as well as pain.

Fractures

As we all know about the fracture that is the crack or break in the bone.

Dislocation

A dislocation occurs when the bone slips out from the specified location. It generally occurs in the shoulders, thumb, elbow, fingers, lower jaw and other movable joints.

First Aid for Dislocations & Fractures:
- Immobilize the effected part.
- Stabilize the effected part
- Use a cloth as a sling.
- Use board as a sling.

5.1.4 First Aid

First aid is the assistance given to any person suffering a sudden illness or injury with care provided to preserve life, prevent the condition from worsening, or promote recovery.

Kits vary in contents but most kits have the following items:

- Band-aids / Adhesive bandages
- Gauze pads and tape
- Scissors, cold pack
- Wound bandage / compress
- Eye pads / eye wash solution
- First aid / burn cream
- Antibiotic ointment
- Face shield or barrier mask for providing CPR
- Forceps / tweezers
- Disposable thermometers
- First aid instruction booklet

5.1.5 Personal Protective Equipment's (PPE)

Personal protective equipment (PPE) refers to protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection. The safety by protective equipment includes electrical, heat, physical, biohazards, chemicals, and airborne particulate matter.

Figure 5.1.3 Personal Protective Equipment's

In the workplace, there are many situations which require immediate first aid to the victim and many countries have made some regulation, legislation, and guidance which specify the minimum level of first aid to be given to the victim. For this, the worker needs the special training and area for achieving the immediate first aid. Go achieve this, the training should be given by specialist first aid officer and necessary training given by learning institute. The training of first aid does not need any type of specific tools and equipment but may involve the improvisation with material offered at the time of training.
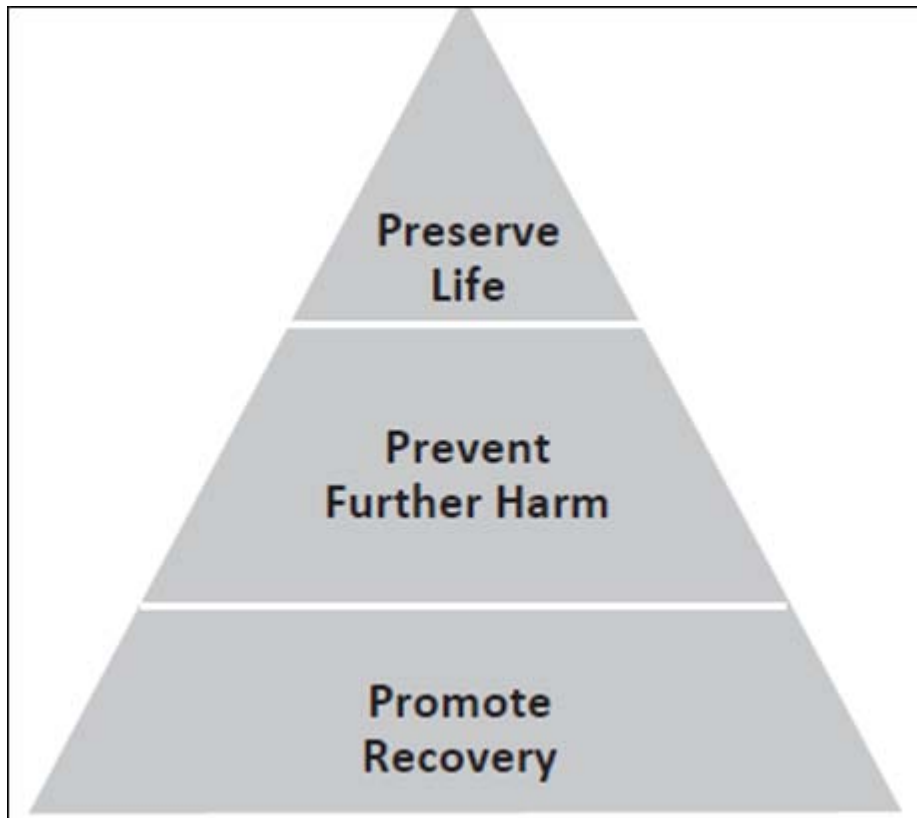
Figure 5.1.4 First Aid pyraimid

While delivering First Aid always remember:
- To prevent from degradation.
- Act deliberately and confidently with the victim.
- The timings of Golden Hour should be first 60 minutes from an accident .
- The timings of Platinum Period should be first 15 minutes following an accident.
- Prevent the body shock and choking.
- Stop bleeding from the wound.
- Loosen the clothes of victim.
- Regulate the respiratory system of the victim.
- Avoid crowding near the victim.
- Take the victim to safe place or hospital near the workplace.
- Attend the emergencies situation with ease and without fear.
- Always remember to not overdo. Because the person giving the first aid is not doctor.

Exercise 🖉

1. Discuss some general safety rules for working in the workshop.

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2. What is PPE and are the common components of PPE?

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3.   What is an accident and what are the types of accidents?

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4.   Discuss the types of fire-extinguisher and their uses?

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5.   Write a short note on health and hygiene?

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6.   What are the common components of First-Aid kit?

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_____

7. What are the symptoms of shock and what should be the first-aid?

8. What are the symptoms of heat exhaustion and what should be the first-aid?

6. Soft Skills And Communication Skills

Key Learning Outcomes

At the end of this unit, you will be able to:

1. Understand Art of Effective Communication.

2. Able to handle effective Communication with co-workers.

3. Able to handle effective Communication with Peers/ colleagues.

4. Learn basic reading and writing skills.

UNIT 6.1: Introduction to the Soft Skills

Unit Objectives ⌖

At the end of this unit, you will be able to:

1. Understand the basic meaning of Soft Skills, their components and their benefits.

2. Understand Work Readiness and its significance.

6.1.1 What is a Soft Skill?

These are personal characteristics that describe an individual's ability to interact with people and situations around. Soft skills can be explained as a group which comprises personality traits, social graces, language, habits, sociability and optimism that characterise relationship with other people. Soft Skills complement hard skills which are occupational requirements of a job and many other activities. They are related to feelings, emotions, insight. Soft skills has to do with who we are than what we know.

For instance – the soft skills required for doctor would be empathy, understanding, active listening and a good bedside manner.

Soft skills also determine how satisfied and happy one remains in professional and personal situations.
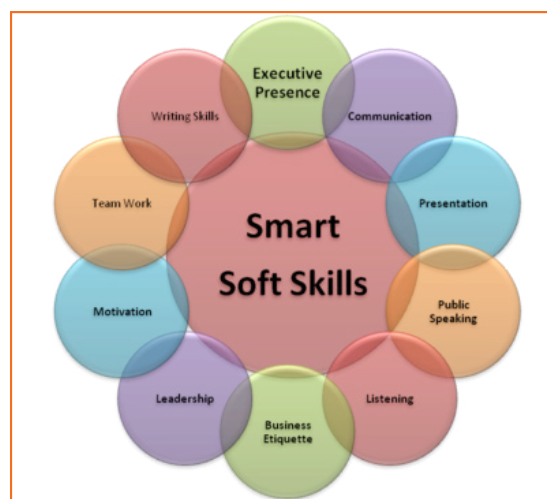
Fig.6.1.1: Soft skills

6.1.2 Components of Soft Skills

- **Adaptability:** It is the ability of an individual to manage change. It's about how fast and smoothly a person is able to blend in and be productive in an changed environment.

- **Emotional Strength:** This involves managing mood and having control over it. An emotionally strong person succeeds in directing his moods and emotions such as anger frustration and excitement.

- **Leadership Quality:** How one manages conflict in personal and professional situation and convinces people reflects upon his leadership quality.

- **Team Playing Ability:** It is the ability to manage different types of people and make them work harmoniously with each other.

- **Decision Making:** This reflects upon how one manages his time and other resources in efficient and productive manner.

- **Interpersonal Communication:** This is an individual's ability to effective communication with other and in the process creating a positive image of him.

- **Negotiation Skills:** This is how one negotiates with others and reduces the level of stress in work, professional and personal environment.

6.1.3 Benefits of Soft Skills

Some of the benefits of Soft Skills are as:

- Increased credibility with customers.

- Increased customer satisfaction.

- More productive employees.

- Out service the competition.

- Recognition from the industry, employer and peers.

- New employment opportunities.

- Increased ability to perform on the job.

6.1.4 Work Readiness

Work readiness involves you having what employers call "the right attitude". At the most basic level you should have:

- A positive attitude to spend some days at workplace

- The capacity to function in a mature environment without the support of other co-workers

- An allegro attitude to the owner

- A clear interest at work to be done

- Expectations of the work that a fresher will be able to do at a workplace with commercial goals to achieve

- The willingness to be supervised, follow instructions and wear safety gear as directed

Fig.6.1.2: Work readiness

- The confidence to ask questions to clarify instructions

- Pride in appropriate personal presentation

- The ability to communicate appropriately in an adult working environment

- The capacity to acknowledge customers and provide the assistance recommended by the employer

- A commitment to maintaining their reliability and punctuality for the whole of the period spent in the workplace

- Completed a preparation for workplace learning program which includes OH&S practices, acceptable behaviour in the workplace (including child protection issues) and emergency contact procedures.

UNIT 6.2: Effective Communication

Unit Objectives

At the end of this unit, you will be able to:

1. Do public speaking.
2. Describe likes and dislikes of a person.
3. Know basic etiquette of conversation.

6.2.1 Introduction

We are living in an information age where communication is an integral part of our lives. We have to send, receive and process huge number of messages everyday. But effective communication is more than just passing information to each other. An effective communication is nothing but understanding the emotion behind the information. Effective communication helps us develop relationship at home, work, and in social situations by excavating our connections to others and improving teamwork, problem solving and decision making.

Effective communication skill is a learned skill, it is more effective when it's spontaneous than formula.

6.2.2 The Communication Process

The process of conveying information through the exchange of thoughts, ideas, feelings, intentions, attitude by speech, gesture, writing etc. is known as communication. It is the meaningful exchange of information between two or more participants.
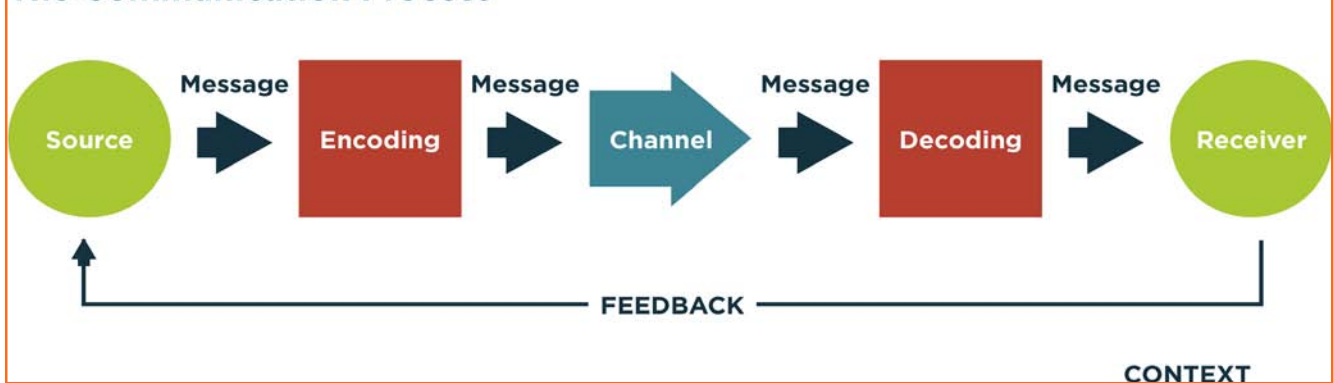
Fig.6.2.2: The Communication Process

Communication requires a sender, a message, a medium and a recipient. Communication process is not complete if a receiver does not understand the sender's message.

Communication with other involves three steps:

1. **Message:** First of all the information exists in sender's mind. It could be a concept, an idea, a formation or a feeling.

2. **Encoding:** A message is sent to the receiver in encoded language/format.

3. **Decoding:** Lastly the receiver translates the words or symbols into a concept or information that a person can understand.

6.2.3 Verbal and Non-Verbal Communication

There are three main types of communication. These are:

1. **Verbal Communication:** It means you listen to a person to understand what message the person is trying to convey. The speaker have the advantage of immediate feedback. This type of communication is best for conveying emotions and can involve storytelling and critical conversations.

2. **Written Communication:** Letters, books, newspapers are few of the examples of written communication. Printed media, emails can also be categorised into this communication. They are asynchronous, can reach many readers and are best for conveying information.

3. **Nonverbal Communication:** A nonverbal communication can also be called Body language because this communication does not involvedany verbal interaction but mere observation of the people involved in the communication. Both verbal and written communications convey nonverbal communication and are also supported by body language, eye contact, facial expression, posture, touch and space.
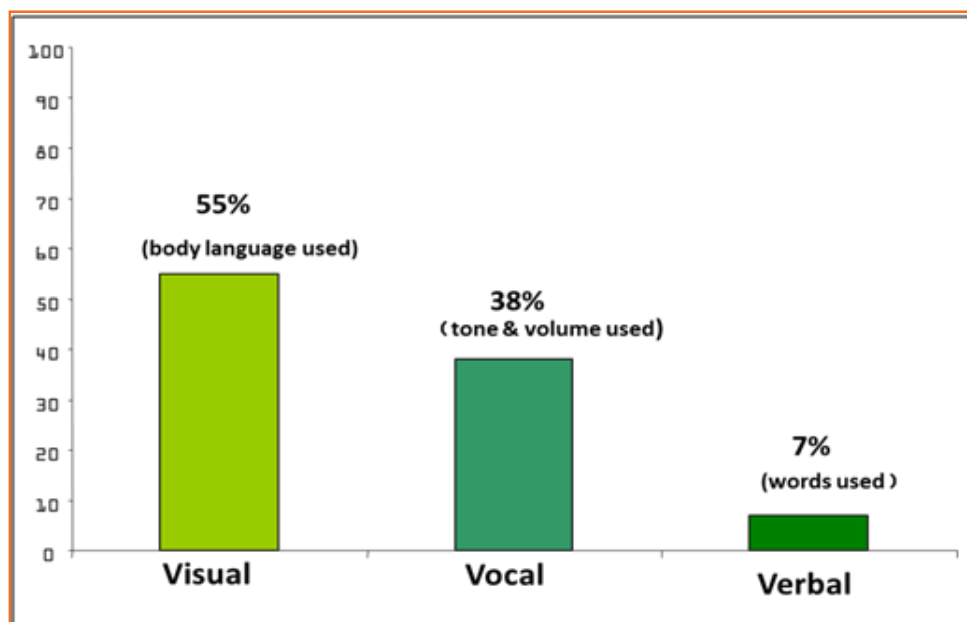
Fig.6.2.3: Categorization and ratio of Verbal and Non-Verbal Communication

According to a study only seven-membered of a receiver's comprehension of a message relies on sender's actual words, 38th relies on paralinguistic communication (tone, pace and volume of speech) and 55th relies on nonverbal cues.

Research shows that once people are lying they're more doubtless to blink more frequently, shift their weight and shrug.

6.2.4 Communicating Effectively Identifying Barriers

There are various reasons why communication is not effective and successful. These failures are because of the barriers in communication which occurs at any stage in the communication process. Barriers may lead to one's message becoming misleading and therefore at risk of wasting both time and money by causing confusion and misunderstanding. Effective communication involves overcoming these barriers and conveying a flawless and concise message.
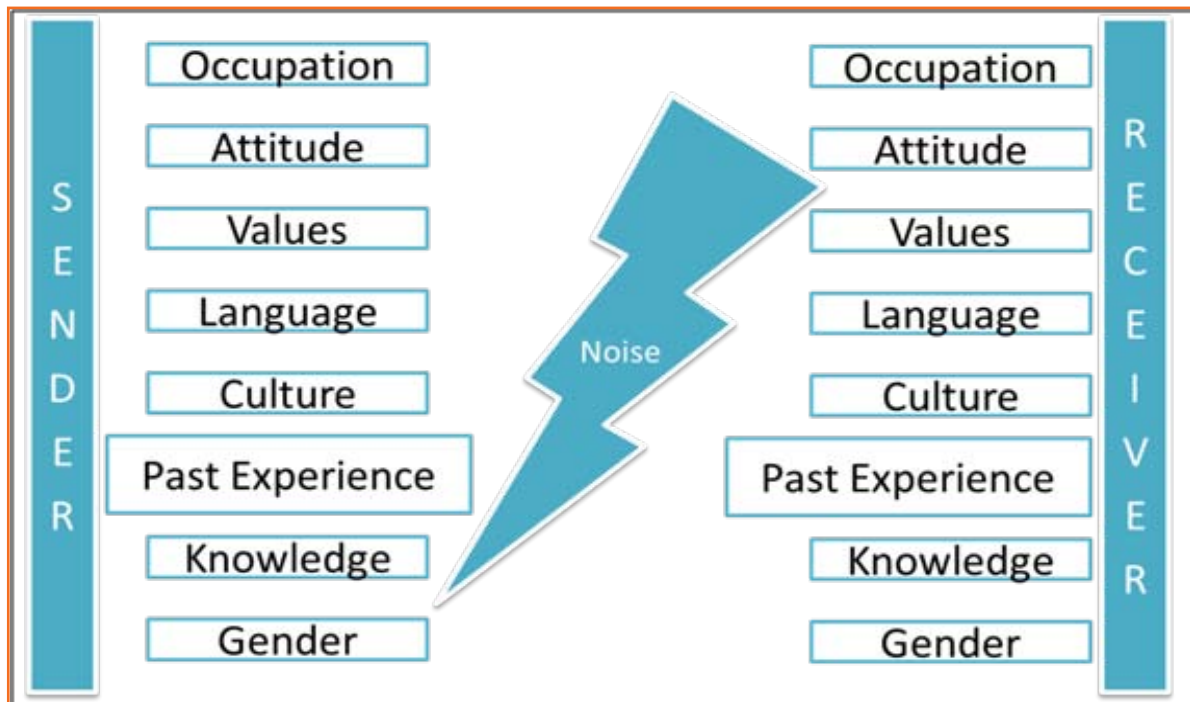
Fig.6.2.3: Barriers in Communication

A skilled person should remember these barriers and try to reduce their impact by regularly checking understanding or by giving correct feedback.

Dealing with Barriers

- Use simple, easily understood word. Over complicating makes things confusing
- While speaking in other language always prepare beforehand
- Always give or take feedback to ensure the effectiveness of communication
- Be alert to cues
- Listen, listen, listen …
- Test your understanding
- Share opinions, perceptions

6.2.5 Effective Communication-Practice

Active Listening

Listening is one of the most significant skills one can have. To become a better listener it is important that you practice active listening at all time of verbal communication.

6.2.5.1 Some tips for active listening

- **STEP 1:** Concentrate what the person is talking about and not on noise or other external distractions.

- **STEP 2:** Understand his emotions and you get it all right. Is the speaker angry, happy or plainly inquisitive?

- **STEP 3:** When the speaker is saying or telling something, don't break the chain of his thoughts.

- **STEP 4:** Don't avoid completing sentences of the speaker. Let them speak and speak only after they finish.

- **STEP 5:** It's alright if you haven't understood at first chance. Request to repeat the information.

- **STEP 6:** Practice makes a man perfect. Listen intently, focus and ignore other noises. Listen more and talk when required.

It takes lots of concentration and determination to be active listener. Previous habits are arduous to break and if your listening habits are not good then you have to break those. Start listening deliberately and prompt yourself frequently that your goal is to hear truly what the other person is saying.

UNIT 6.3: Grooming and Hygiene

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Maintain cleanliness and hygiene.

2. Keep their dress clean and tidy.

3. Maintain positive body language while speaking.

4. Enable to perform more of the do's than the don'ts.

5. Learn about good eating habit and their impact on health.

6. Avoiding bad things such as gutkha and alcohol.

7. Learn about AIDS and its prevention.

6.3.1 Personal Grooming

An art of keeping your body and mind clean is Personal Grooming. It is very important that everyone should take care of their hygiene n cleanliness. Due to this, one would not just look good but feel healthy to. Taking care of your body appearance is imperative. Once you enter your store/department you need to be dressed in full uniform as per company standards, and also properly groom yourself as per the service ethics.

Personal grooming not only makes us presentable but also makes us feel confident about ourselves. Good personal hygiene is essential for good health. Habits that are considered personal grooming include, bathing, dressing, applying makeup, hair removal and taking care of one's teeth, nails and skin.

Fig.6.3.1: Personal Grooming

Appearance

- The front line person/team is the brand ambassador of the company, just like the face is to your body. The customers visiting the stores are greeted by this team and lend their assistance. Hence they are expected to present a neat & clean looks.

- When in store premises, even during off-duty hours, a well-dressed appearance needs to be maintained. They are expected to be in uniforms (including shirt, trousers, shoes & socks) which must be worn clean & ironed.

- We should take care about no stains, broken buttons, or loose thread present on the uniform.

- You should always clean & polish your shoes. Sandals/slippers/sports shoes and white socks should not to be worn during on duty.

- Nails must be trimmed and clean.

- Hair should be neatly combed before commencing duty. For female members hair should be tied up if longer than shoulder length. Display ID cards when on duty is a must since accountability is important for the customers.

6.3.2 Specific Uniform Guidelines

Sr. No.	Specifically for Men	Specifically for Women
1	Uniform prescribed should be clean and pressed.	Women having long hair should tie it with rubber band or hair clips and not keep it loose. She should apply much oil in hair.
2	Shoes should be clean and polished.	They should avoid bright color nail polish and long nails as they'll be a cause to distract customers or harm the merchandise on display.
3	Hair must be short, clean & tidy.	Minimum, non-flashy jewellery should be worn.
4	One is expected to have a clean shaven look.	Dangling earrings, noisy anklets & bangles must not be worn on the floor
5	In case of beards/moustaches, must be trimmed, neat & tidy.	Only very light make-up to be applied (lip- stick of very light shades only)
6	Nails should be cut or trimmed neatly at regular intervals.	Any type of earrings studs & bracelets are not to be worn on the floor during official hours.

Fig.6.3.2: Specific Uniform Guidelines

6.3.3 Body Posture

- Staff needs to keep their hands clean at all times as they mostly will be handling merchandise or in contact with customers.
- Avoid biting nails on the floor.
- Manage body odour & bad breath to be under control as they are offensive to the customer.
- Maintain straight & upright posture on the shop floor.
- Slouching on the floor, hands in pockets, hands on the hips are not courteous to the customer & hence should be avoided.

It just takes a few seconds for people to assess others when they meet for the first time. The other person creates an opinion based on appearance, body language, mannerisms and how one is dressed. For creating a first positive good impression always follow these things:

- Be on time
- Be yourself and be at ease
- Present yourself appropriately
- Always smile
- Be courteous and attentive
- Be positive

6.3.4 Positive Body Language

While meeting someone for the first time always remember that not only you should talk positively but your body language also needs to be positive. There are some tips for positive body language as:

- Avoid your pockets. Keep your hands out of your pocket. Hand in pocket shows we are uncomfortable and unsure of ourselves. Keeping our hand in open indicates confidence and show that people has nothing to hide.

- Don't Fidget. Fidgeting is a clear sign of nervousness. An individual who can't keep still is an individual who is worried, tense and not confident. Keep your gesture calm and under control.

- Keep your eyes forward. This indicates that you are interested in communication with other.

- Stand up straight with your shoulders back. It communicates confidence.

- Take wide steps. It makes you seem purposeful and suggest a personal tranquility and denotes confidence.

- Firm handshake. Grip other persons hand firmly and confidently instead of getting a palm full of dead fish. Firmness adds warmth and enthusiasm to the handshake. But make sure that you don't crush the other person's hand and don't hold on too long.

- Don't cross your arms when meeting other persons. This is a protective posture.

- Use contact to show appreciation.

6.3.5 Personal Hygiene

What is Personal Hygiene?

Personal Hygiene is the set of practices to follow to preserve one's health. Maintaining a high level of personal hygiene will help to increase self-esteem while minimizing the chances of developing infections. Poor personal hygiene can have significant implications on the success of job applications or chances of the promotion.
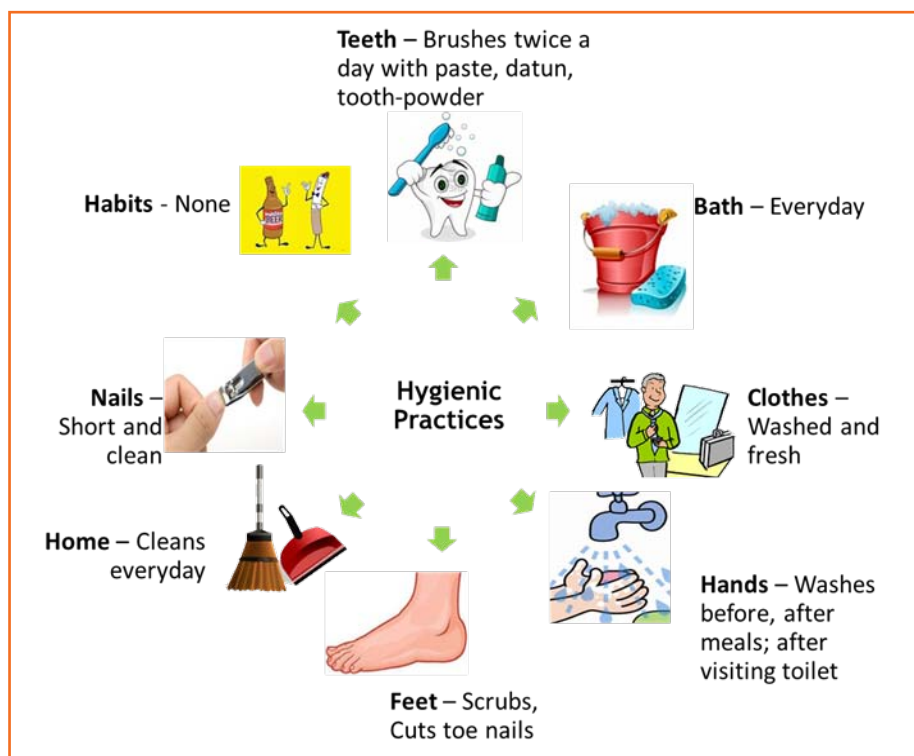
Fig.6.3.3: Personal Hygiene

Why to brush teeth?

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Brush your teeth in the morning and before going to bed with paste, datun or tooth powder

Fig.6.3.4: Brush teeth

Fig.6.3.4: Take bath

Why to take bath?

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Why to wear clean clothes?

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Fig.6.3.5: Clean clothes

Fig.6.3.6: Cut nails

Why cut nails?

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Why wash hands?

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Fig.6.3.7: Wash hands

6.3.6 Physical Fitness

Apart from following these hygienic practices, one should also be physically fit. Physical fitness is an outcome of regular exercise. Exercise may be of many different forms. Jogging, morning-walk, weight-lifting, gym, swimming, cycling, yoga and many more.

Advantages of Physical Fitness

- It maintains optimal body weight.

- It reduces risk of diseases.

- It boosts confidence and self esteem.

- It reduces stress, anxiety and depression.

Fig.6.3.8: Physical Fitness

Healthy Eating

We can follow hygienic practices and exercise regularly, but what we eat has the biggest impact on our health. To be healthy, one has to eat healthy. But what do we mean by eating healthy?

Eating a healthy, balanced diet provides nutrients to our body. These nutrients give us energy; keep our brain active and our muscles working.

Fig.6.3.9: To eat

Fig.6.3.10: Not to eat

What are healthy eating habits?

- Always try to eat home-made food

- Avoid oily food

- Always cook and eat fresh food

- Avoid junk food like burgers, carbonated drinks etc.

- Eat fruits regularly

- Drink lot of water

Things to be avoided

There are certain habits that have severe ill-effects on one's health. Such habits should be avoided for a healthy life.

Alcoholism

It's the tendency during which one consumes alcohol to manage difficulties or to avoid feeling unhealthy.

Alcohol has the potential to interrupt almost every organ in the body as well as the brain. Uncontrolled consumption of alcohol not only affects a drinker's health but also human relationship and social standings.

It's effects:

- Health increase risk of heart diseases, cancer, impaired immune system, liver infection (Cirrhosis) etc.

- Reduced work focus and drop in performance

- Degradation in social and economic status

- Withdrawal symptoms like anxiety, trembling, fatigue, headache and depression etc.

Fig.6.3.11: Effects of alcohol

Tobacco

Tobacco is the second largest cause of death in the world. It claims one death in every six seconds.

Smoking is a practice of burning a substance and inhaling the smoke coming out of it. Common smoking implements include cigarette, bidi, hookas and pipes. According to a report every year 4.9 million people die worldwide as a result of smoking. Smoking is prime cause of lung cancer. According to a study male smoker lose an average of 13.2 years of life while a female smoker lose 14.5 years of their life. Smoking increases 50 % chances of heart diseases than a non smoker.

Fig.6.3.11: Risks from smoking

Chewing tobacco is a product consumed by placing a portion of it between the cheek and upper gum or upper lip teeth and chewing. Having tobacco increases the risk of oral cancer.

It's effects:

- It is the biggest reason for oral cancer which effects mouth, tongue, cheek, gums and lips
- Chewing tobacco lessens a person's sense of taste and ability to smell
- Smokers face a greater risk of suffering from lung cancer

Gutkha

Gutkha is extremely habit-forming and a acknowledged substance. Excessive use of gutkha can cause loss of appetite; promote uncommon sleeping pattern and loss of concentration beside different tobacco related issues. A gutkha user may be simply illustrious by prominently stained teeth ranging from dirty yellow orange to scarlet black. The stains are powerful to remove by normal brushing sometimes want the attention of dentist. According to a world adult tobacco survey 53.5% of Indians use tobacco products. Gutkha's each sachet contains 4000 chemicals, including 50 that cause cancer, Betel nut, Tobacco, Flavouring.

Impact of Gutkha on health:

- Loss of sensation in tongue
- Disfigured mouth
- Increased sensitivity to heat, spices, cold and spices
- Inability to open the mouth
- Swelling, lumps, rough spots on gums or in other places inside the mouth
- Unexplained bleeding in mouth
- Difficulty in swallowing and finally Mouth Cancer

Fig.6.3.12: Oral Cancer

6.3.7 AIDS/HIV Awareness

The full form of AIDS is Acquired Immunodeficiency Syndrome. AIDS is caused by HIV (Human immunodeficiency Virus). It is the last stage of the HIV infection, if a person is HIV positive, he/she is suffering from AIDS.

According to a survey number of AIDS patients in India is between 2 to 3.1 million almost 50 % of total patients of AIDS. More men are HIV positive than women. A total of population of 0.29% females are suffering from AIDS while 0.43 % males are suffering.

AIDS is transmitted by:

- Unprotected sexual relationships
- Contaminated blood transfusion
- Hypodermic Needles
- From infected mother to child

Fig.6.3.13: NACO Logo

As per studies in India HIV/AIDS is largely due to unsafe sex worker interactions. About 86 % HIV incidents in the country is from unprotected sex. Migrant workers, truck drivers and majority of men who have sex with men pose greater risk of infecting their spouse and unborn children. People between 18-29 age groups accounts for 31 % of AIDS burden.
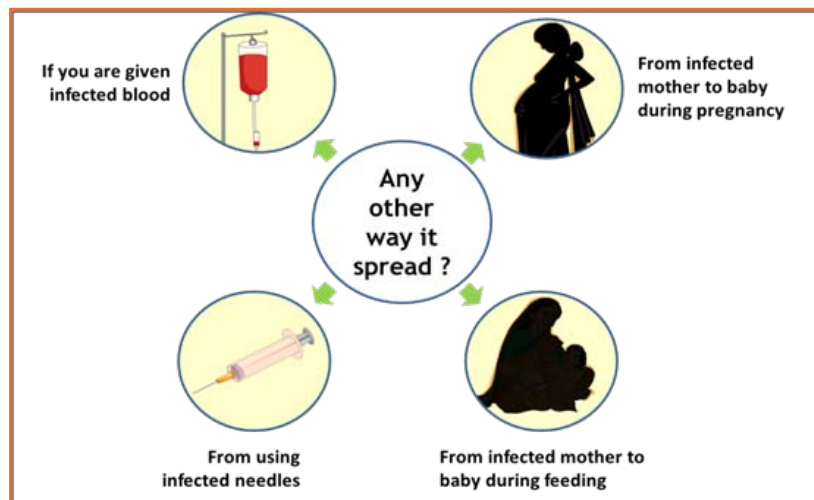
Fig.6.3.13: AIDS transmition

There are no medicines or vaccines for AIDS so far. The treatment and medicines which are available in the market are expensive and have side effects.
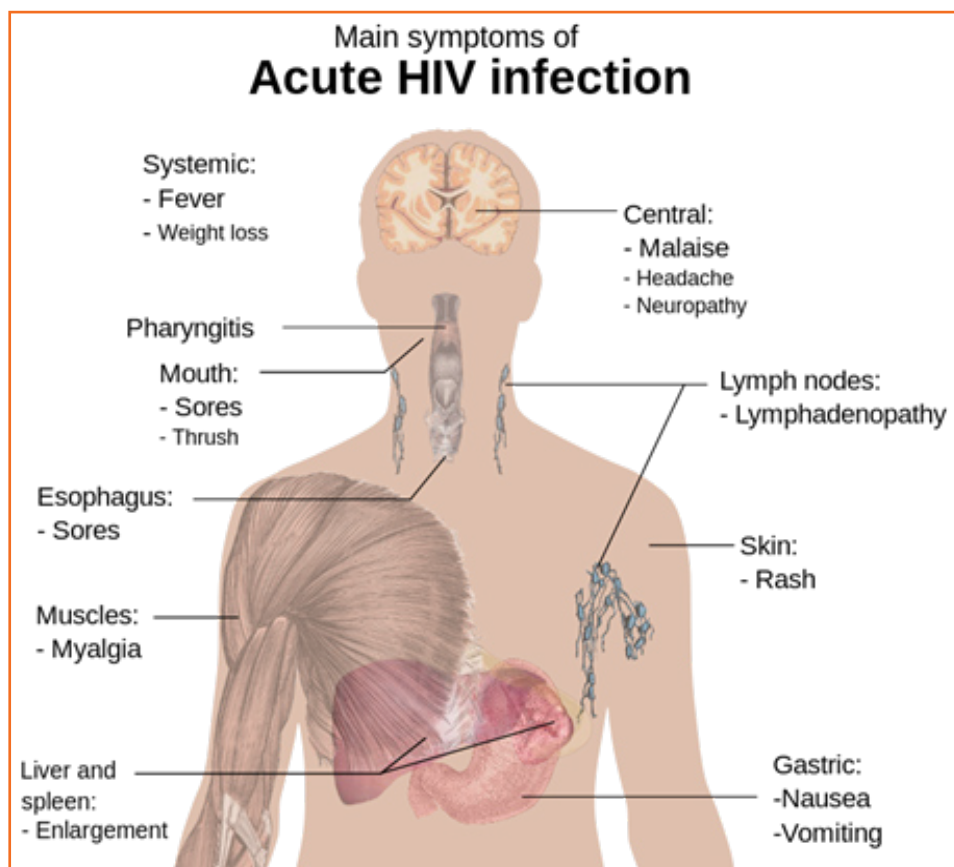
Fig.6.3.14: Acute HIV Infection

AIDS is not a disease like cancer or malaria, but is a condition that weakens a person's ability to fight diseases (immune system).AIDS not only affects you, but also has severe impact on family and friends. Even one mistake is enough to get HIV positive.
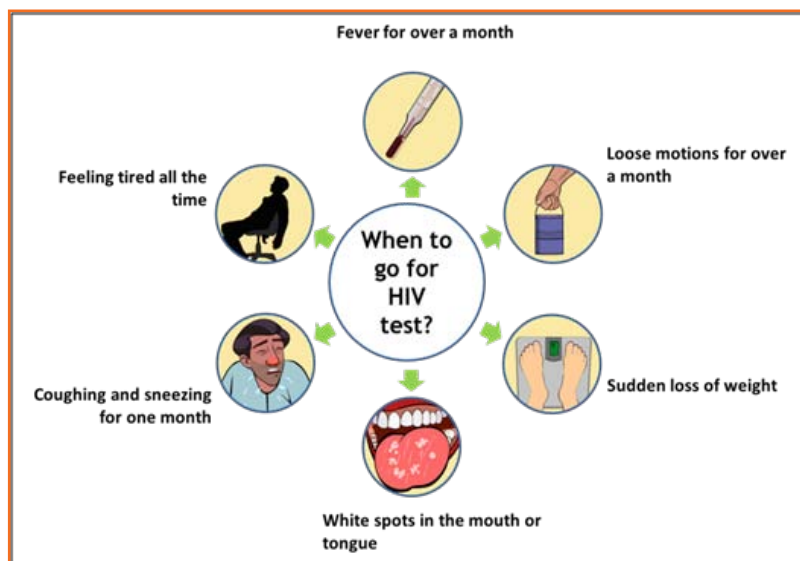
Fig.6.3.15: AIDS non-nispersing Deseases

Stay faithful

- In India large number of people move around for work, mostly men.

- Are you one of them?

- Take care. See that you don't catch any infection from AIDS.

- Even one visit to a sex worker may result in HIV infection.

- So it is advisable to avoid multiple sex-partners and always use protection (condoms/nirodh) during intercourse.

AIDS does NOT spread through

- Sitting close

- Working together

- Hugging

- Touching hands

- Mosquito bite

- Saliva or cough

- Taking care

- Sharing clothes

- Eating together or sharing utensils

Fig.6.3.16: Condoms

6.3.6.1 Case Study

Gautam is a plumber. His family lives in a village. He travels from place to place. Once he visited a sex worker. After one month he fell ill. He went for a checkup and found he had AIDS. Gautam did not know it, but that sex worker had AIDS. He was infected from that one visit.

Share four things that you know or learnt about AIDS.

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Always remember:

- AIDS has no cure but can be prevented, therefore be cautious of it not afraid of it.

- Be faithful to your partner and always use condom while making any sexual contact.

- Take blood only after checking proper medical certificates.

- Do not discriminate HIV positive people.

UNIT 6.4: Interpersonal Skill Development

Unit Objectives

At the end of this unit, you will be able to:

1. Develop a positive attitude and behaviour.
2. Understanding Goal Setting.
3. Motivated for team participation at work.
4. Learn how to manage relations.
5. Learn about Stress and anger management skills.
6. Learn to develop leadership qualities.

6.4.1 Introduction

Interpersonal skill development is the blend of different traits of day to day life that play an important role in creating our impression in other's mind. It starts from inside. The role of interpersonal skill development is to help us understand how to make choices about our attitudes and actions. It enables us to understand:

- Where are we now?
- How change and growth occur successfully?
- How we can change our attitude to get results we want and to be more effective in work and personal life?

One can learn to control over many aspects of our job and their environment by making appropriate choices and responses.

These include various traits like:

- Positive Attitude
- Motivation
- Goal Setting
- Team Work
- Managing Relations
- Etiquette
- Stress and Anger Management
- Conflict Resolution

6.4.2 Positive Attitude

What is attitude?

- Our approach...
- Our outlook towards situations and others...

- The emotions we express towards others.
- Our attitude must be positive and hopeful.

Remember:

- Luck favors those who help themselves
- Don't wait for things to happen make them happen
- Stay away from negative influences
- Start your day with something positive
- Learn to like the things that need to be done

Positive attitude shows in the following ways:

- Positive thinking
- Constructive things
- Creative thinking
- Optimism
- The motivation and energy to accomplish goals.
- An approach of happiness

Fig.6.4.1: Positive Attitude

Positive attitude results in happiness as well as success. Positivity not only affects you and the way you look at the world, but it also affects work environment and people around you.

6.4.2.1 Story of Carrot, Egg and Coffee Beans

Raju works as a Supervisor in a factory. He is not happy with his job. One day he spoke about his dejection to his elderly friend, Prashant, who runs a small canteen for the factory workers.

"Prashant I am not satisfied with my job. There are so many problems in the factory. If I solve one, another one crops up. The problems seem to be never ending. I am quite fed up and wish to quit."

Prashant said nothing. He quietly put three pots with water on the stove. He put some carrots into one pot, some eggs into another and coffee beans into the third pot. The water in the pots began to boil.

Raju wondered what was going on! "Oh, here I am with my tale of woes, and this illiterate cook goes about his business!"

After some time, Prashant switched off the stove and put

Fig.6.4.2: Story of Carrot, Egg and Coffee Beans

the carrots, eggs and the beans in different bowls. He then said, "My friend, what do you see here?" "Carrots, eggs and coffee", said Raju irritably. "Of course! Now come and feel them one by one", said Prashant. "Oh God! What do you want to prove?" asked Raju controlling his anger. "The carrots have turned soft. The egg is hard boiled beneath its shell and the coffee is stronger in aroma". "Exactly" said Prashant "Each of them faced the

same degree of heat, but each reacted differently. The carrots that were so hard before became soft and weak. The egg was fragile with its thin outer shell, but after boiling it became hardened and the inner liquid portion became hard boiled. But the coffee beans are unique. After boiling in water, they became stronger and richer. So my friend, tell me, are you the carrot, the egg or the coffee bean? How do you respond to difficult situations? Are you like the carrot that is hard to look at but with the slightest difficulty becomes weak and soft? Are you the egg born with a soft heart but became tough and stiff after a difficult or a bitter experience? Or are you like the coffee bean that gets stronger and tougher and reaches its peak in extreme adversity or difficulty?

When things get worse, you get better.

"Thank you Prashant. You've opened my eyes. I shall strive and do my best."

What have you learnt from the story?

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6.4.2.2 Some Successful People

Dirubhai Ambani - Founder of the Reliance brand

Born in Junagadh in a middle class family, son of a school teacher. His mother who had difficulty meeting the ends with his father's income, nagged him to begin earning some money. He snapped at her "Phadia, phadia su karo chho …paisa no to dhanglo karees …" Just to show that that he was serious, he once bought a tin of groundnut oil on credit from a local whole seller and sold the oil in retail sitting on the roadside, earning a profit of a few rupees that he gave to his mother.

Fig.6.4.3: Dirubhai Ambani - Founder of Reliance

Next, he began setting up onion and potato fries stalls at village fairs during weekends when his school was closed. When he grew up, he came to Mumbai with very little money and lived in a two room chawl with his family. But dreamt big and worked towards his dreams.

Fig.6.4.4: Rajnikanth: Super star of Tamil cinema

Rajnikanth: Super star of Tamil cinema

- Hero and demi-God for many thousands
- Original name Shivaji Rao Gaekwad
- From bus conductor to super star

Early life:

- Driven by poverty, went through extreme struggle
- No education; Worked as a bus conductor
- Entertained passengers in the bus
- Got a break in Tamil cinema
- Worked with a single mind to become a super hero

What have you learnt from these two people?

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6.4.3 Goal Setting

Goal setting is a powerful method for considering your ideal future. The method of setting goals helps you to decide on where you wish to go in life.

Goal setting consists of establishment of specific, measurable, achievable, realistic and time targeted aim. Goal setting helps individuals work towards their own objectives. Goals are a kind of motivation that sets the standard for self-satisfaction with performance. Achieving the goal one has for oneself is a measure of success and having the ability to satisfy job challenges is a way one measures success in the workplace. Set SMART goals:

- S : Specific
- M: Measurable
- A: Attainment
- R: Relevant
- T: Time bound

Identify

- What you want to achieve,
- Where you have to concentrate your efforts
- Also spot the distractions that can, lead you astray.

First create your "big picture" (the next 10 years)

- Identify the large-scale goals that you just wish to achieve.

Fig.6.4.5: Goal setting

- Then break these down into the smaller targets that you simply should hit to succeed in your life goals.
- Once you have your plan, you begin working on it to achieve these goals.

Setting goal is important for an individual because:

- Goals narrow attention and direct efforts to goal related activities.
- Goals lead to more effort.
- One works through setbacks if he is pursuing a goal.
- It develops and changes individuals behaviour.

Categorization of Goals

To give a broad balanced coverage of all important areas in your life set goals in all the important categories of your life such as:

- **Career:** What level do you want to reach in your career or where you want to reach?
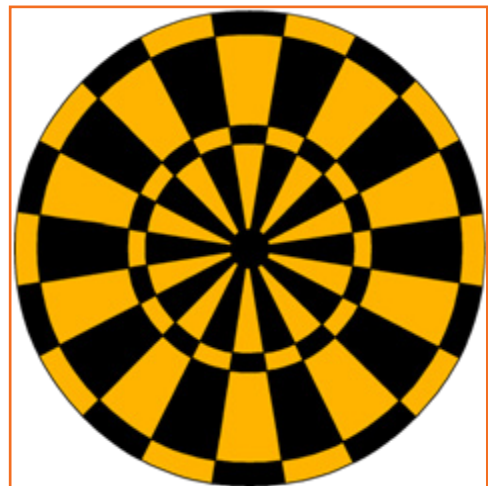
- **Financial:** How much you want to earn, by what stage? How it is related to your career goals?
- **Education:** Is there any specific knowledge you want to acquire in life? What information and skills you need to acquire in order to achieve your goals?
- **Family:** How you want to be seen by your spouse and family members?
- **Health:** Do you want to stay healthy in your old age? What are you planning to achieve this?
- **Public Service:** If you want to make the world a better place, what will you do?
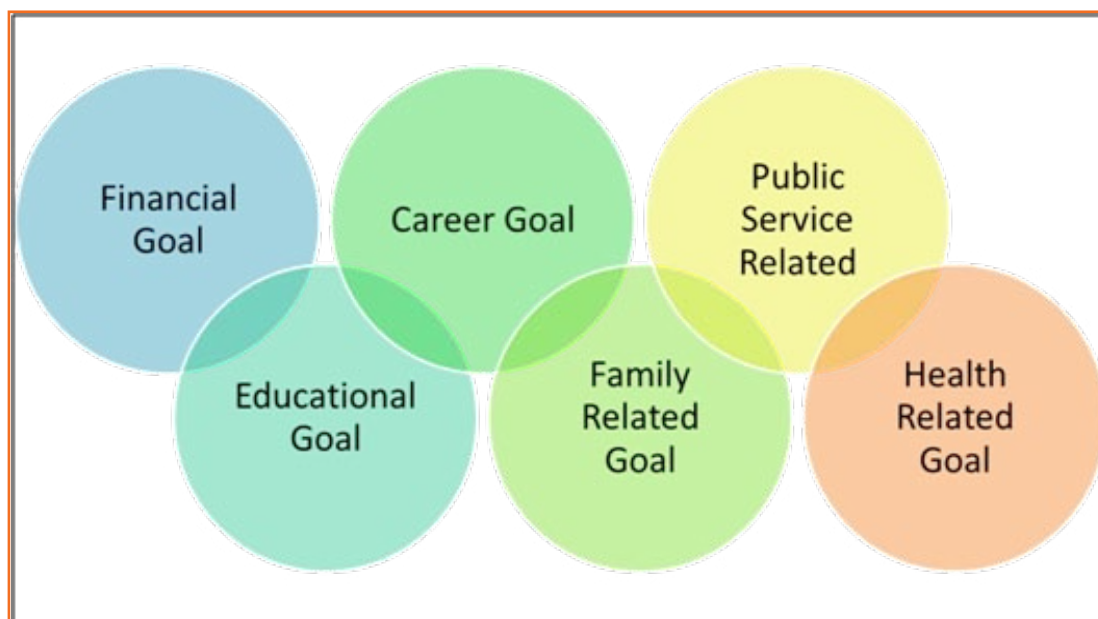
Fig.6.4.6: Categorization of Goals

Write down your two financil goals.

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Write down your two career goals.

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Write down your two educational goals.

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Write down your family related two goals.

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Write down your health related two goals.

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Write down your public service related two goals.

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6.4.4 Team Dynamics

A team is made up of a group of people associated to a common purpose. Teams are especially made to conduct complex works. A team is an example where a people share a goal. This creates a dynamic bond amongst the team members as they are dependent on one another for success. For example a sports team wins or loses as a whole.
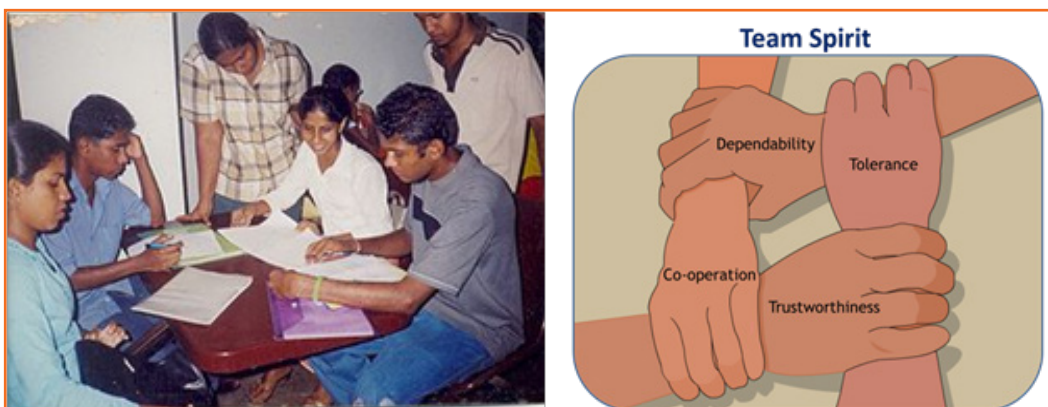
Fig.6.4.7: A teamwork

Team members need to learn:

- How to assist each other
- Realize their true potential
- Prepare the atmosphere that is familiar with each member to work beyond their streangth.

Factors of Team Dynamics

- Tolerance and Cooperation
- Set aside feelings of caste, creed, profession
- Put up with each other
- Identify strengths of each
- Who can do what

In a team, there is no room for personal gains and definitely not betrayals. In a team:

- A single person cannot achieve a big task single handedly.
- Big and difficult tasks can be accomplished only through collective effort, through teams.
- In a team, the team members stand by each other during good and bad times alike.
- Work together towards a common goal.
- Divide the task and share the burden.
- Help and accept help from others.

6.4.4.1 Story : Small Fishes and Big Fish

Once there was a shoal of tiny red fish living in the sea. One among them was a little different. His name was Swimmy and he was black in colour. Swimmy was the fastest swimmer in the shoal. The fish would swim around in the sea looking for food. One day when they were busy searching for lunch, Swimmy who was far ahead of the others saw a big fish coming in their direction. The big fish was also looking for his lunch---smaller fish. Swimmy was scared! If the big fish would spot his shoal, all of them would be eaten up. Swimmy thought hard of a way out and quickly came up with a plan. He quickly swam back to his shoal and told all the fish about the big fish and also explained his plan to escape from being eaten.

Fig.6.4.8(a): Small Fishes and Big Fish
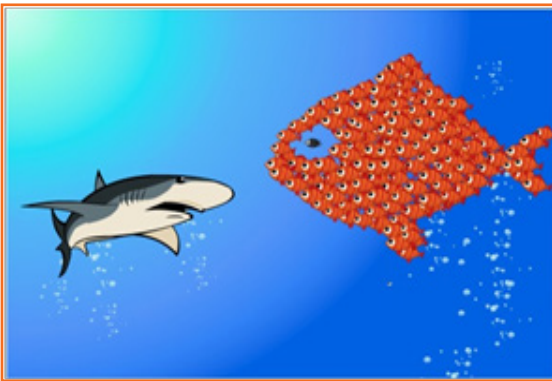
Fig.6.4.8(b): Small Fishes and Big Fish

When the big fish came closer he was shocked to see an even bigger fish swimming in his direction with its huge jaws wide open. Frightened that he would get eaten up, the big fish swam away. If he had looked carefully, he would have realised that the huge fish was actually all the tiny red fish swimming very closely together in such a way that they looked like one big fish. And little black Swimmy, being different, became the eye of the 'huge' fish!

What have you learnt from the story?

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6.4.5 Managing Relations

We all have different personalities, different desires and wishes, and different ways of showing our emotions that affects people around us.

70% of the workplace learning is informal, once people discuss with each other at work they really are learning to do their job better. Friendlier staff are effective communicators, more productive and trustworthy more by employers and colleagues.

Tips for improving relations with people around us:

• Observe how you react to people such as do you reach to a conclusion

Fig.6.4.9: Managing Relations

before you know all the facts.

- Look honestly how you think and interact with other people.
- Look at work environment. Do you seek attention for accomplishments or give chance to others.
- Accept your weaknesses courageously and work on them.
- Take responsibility for your actions.
- If you think someone is hurted by you, apologise directly.

6.4.6 Etiquette

Etiquette are nithing but rules operating behaviour regarded as good and acceptable in personal and professional life. Etiquette includes:

Making Positive Impression

- Stand straight, make eye contact and turn towards people when they are speaking and genuinely smile at people.
- Follow the dress code prescribed by the organization.
- When meeting someone for the first time always shake hands with a gentle firmness.
- Always arrive early to work each day.

How you treat with people

- Think how you treat your supervisors and colleagues.
- Don't make value judgments on people's importance at workplace. Respect every individual equally.
- Respect people's personal space at workplace.

Communicating at Workspace

- Keep workspace professional and neat.
- Don't interrupt other people on the workplace.
- Limit personal calls especially when you are working in a manufacturing unit.
- Eat and smoke to the designated areas only otherwise it may disturb other people.

Work etiquette tells the individual a way to behave when handling situations in an exceedingly working environment however the trivial situation is. It also applies to co-worker interaction and communication with colleagues.

Work Ethics

Work ethics is a value based on hard work and attentiveness. Work ethics include:

- **Discipline:** It takes a certain level of commitment to finish your tasks every day. Only with discipline one can stay fixed on goals and determined to complete his assignment.
- **Commitment to work:** A strong sense of commitment to work affects how an individual work and the amount of work he does. When a worker is committed to work he turns up on time, puts in his best efforts and completes the projects to the best of his ability.
- **Punctuality:** It shows that you are dedicated to your work, interested in the work and capable of handling responsibility. Being punctual shows your professionalism and commitment to work.

- **Ownership and responsibility:** Ownership and responsibility stretches in all aspects of an employee's job. Co-workers value the employees' ability to give honest feedback. Supervisors rely on the high moral standards trusting him not create problems and being responsible.

- **Striving to excel:** Keep yourself updated with new developments and knowledge of your field. Learn new skills, techniques, methods required to uplift your career.

Workers exhibiting a good work ethic are usually selected for higher positions, increased responsibility as well as promotion. Workers who don not exhibit good work ethic can be regarded as incompetent and failing to provide a fair value to the employer for the salary.

6.4.7 Stress and Anger Management

Anger is a normal and a healthy emotion. Anger management may be critical for people who find it difficult to keep it under control. There are many health issues related to a unresolved anger like heart attack, high blood pressure, anxiety, depression, colds and flu/fever and digestive problems.

If your heart beats faster and you breathe quickly, tension in your shoulder or clinching your fists beware your body may be showing sign of anger, take steps to calm yourself down. Once you will be able to recognize the signs of anger you can calm yourself down.

Always remember:

- Avoid unnecessary stress, learn to say no and take control of your environment.

- Express your feelings instead of boiling them up.

- Accept the things you can't change.

- Learn to forgive.

- ANGER is only one letter away from DANGER.

- Anger can destroy lives, destroy relationships.

- Put yourself in other's shoes.

- Don't react immediately.

- Post pone for a few seconds whatever you wish to say or do.

- Take a deep breath.
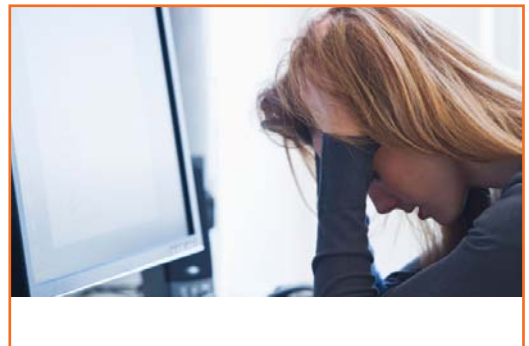
- Speak when you have calmed down.

Fig.6.4.11: Stress Management

Fig.6.4.12: Anger Management

6.4.8 Conflict Resolution

What is a Conflict?

A problem or a situation that may be difficult to understand or to deal with.

Why do we need to resolve conflicts?

- If a problem is not solved or addressed at the right time it may blow out of proportion
- An unsolved problem can be like Cancer which spreads and translates itself into all other areas in life
- Unsolved problems may lead to increased levels of bitterness and frustration
- It may foster bad habits like back-biting, gossiping, etc.
- Persons involved in conflict may lose focus and target each other's character instead of the specific behavior to be modified.

How to work out Conflicts?

1. STOP . . .

   before you loose your temper and make the conflict worse.

2. SAY . . .

   what you feel is the issue. What is the reason of disagreement? What do you like?

3. LISTEN . . .

   to others ideas and feelings.

4. THINK . . .

   of solutions that satisfy both the parties.

If you still can't agree, ask someone else to help you work it out.

6.4.9 Leadership Skills

The ability to lead effectively depends on variety of key skills. These skills are extremely sought after by employers as they involve managing a number of individuals in such a way on inspire, enthuse and build respect. Some of the qualities that every good leader should possess are:

- **Honesty:** If you make honest and ethical behaviour a key value your team will follow the suit.
- **Ability to delegate:** delegating task to one of the appropriate person is the one of the most important skills that needs to be developed. The key to delegation is to identify the core strengths of the team and capitalizing on them.
- **Good communications skills:** Beingable to communicate clearly is quite important.
- **Confidence:** Keeps morale of the team high even in the tough times.
- **Commitment:** If you expectyour team to work hard and produce quality content then you should lead by example.
- **Positive Attitude:** Keeping teams motivated towards continued success of the company.
- **Creativity:** During the critical situations it is important to think out of the box solutions than to prefer the set course of action.
- **Be decisive:** Plan for the unexpected and nothing will surprise you. If you have thought of things go wrong in a particular task you will be able to make confident decisions on corrective actions when necessary.
- **Focus on the big picture:** Plan future strategies for your department and communicate them to supervisors and staff members. Set realistic and measurable individual and team goals and communicate your expectations within the context of massive picture.

How to become a leader:

- Use initiative to act on opportunities. Become a frontrunner before other people view you together.

- Take responsibility of own objectives, set priorities.

- Attempt to solve the matter instead of to pass on to others.

- Go the extra mile when asked to do tasks. go beyond your job description.

- Show enthusiasm.

- Take ownership of the issues. Anticipate potential issues, take pre-emptive action and act quickly to resolve the issues.

- Introduce enhancements to the ways in which things are done.

- Develop innovative practices. Value innovative thinking.

- Learn new skills that may enhance capability.

UNIT 6.5: Social Interaction

Unit Objectives

At the end of this unit, you will be able to:

1. Understand what is social interaction and what are social interaction behaviour.

2. Give a brief description about himself/herself in public.

3. Follow daily duties.

4. Cooperate with peers, family and other members in society.

6.5.1 Social Interaction

Social interaction is a process through which we respond to people talking with us. It includes acts where people perform toward each other and responses they give in return. Social interaction has a number of behaviours. Some of them are:

Fig.6.5.1: Social interaction

- **Exchange:** Exchange is the most elementary kind of social interaction. It's a human process by that social behaviour is exchanged for some kind of reward for equal or greater value.

- **Competition:** It's a process by which two or more individuals plan to accomplish a goal that just one can attain. It will lead to psychological stress, a lack of cooperation in social relationship, difference and even conflict.

- **Cooperation:** It's a process in which people work together to achieve shared goals. Task can not be completed without their cooperation.

- **Conflict:** Social conflict is the struggle for agency or power among a society to achieve control of scarce resources. It happens when two or more individuals oppose each other in social interaction to achieve incompatible goals.

- **Coercion:** People or teams are forced to provide in to the desire of other people or teams.

6.5.2 Self- Introduction

We all, in our lifetime, have to introduce ourselves to the others. The introduction usually lasts for around 2 minutes to 3 minutes. It is very important that it gives the first impression to other about us. It has a great impact on your self-esteem and self-confidence. It's helpful in:

Fig.6.5.2: Self- Introduction

- Feeling better about yourself

- Boosting your confidence

- Building your self esteem

- Making friends

- Feeling in control

Points for Self Introduction

Following are some self-introduction points:

- **Wishes:** It is the first thing that we need to do before addressing a gathering. At this point we need to make effort to grab the attention of audience. You have to wish depending on the time either, Good Morning, Good Afternoon or Good Evening.

    » Good Morning! My dear friends.

    » Respected Sir! Good morning.

    » Special or lovely or cool morning to you all.

- **Purpose:** We have to tell the purpose of coming in front of the audience. We can say I have come here to tell you about myself.

- **Name:** Here you tell about your name….. . To grab the eye of the audience, you have got to present your name differently. If you know you can tell the meaning of your name or nay famous celebrity along with your name.

- **Father's Name:** Here you have to say concerning your father's name. begin your father name as Mr. or Prof. or Dr.

- **Family:** It's a good chance to inform about your family, therefore tell the small print what you want to tell about them.

- **Profession:** Tell about your profession what you're doing at the moment.

- **Location:** Tell about your present location, wherever you're staying and if you would like you can also tell with whom you're living.

You can also tell about your native place. It is better to describe about or tell about your place which is famous for.

- **Hobbies/Habits:** Hobbies means what you like in your leisure and habit means your regular activities. This part tells about your nature and your life style, be careful while telling this.

- **Life Aim:** Tell about what is your aim in life, it will be good if your aim is high. You have to think high and reach high.

- **Achievements:** Tell about what you achieve up to now, minimum it is good to tell about three achievements and maximum five. Though achievements are small, tell them it shows your confidence but don't say I don't have any achievements.

- **Favourite Person's or Ideal:** It is good to say about your ideal persons.

- **Favourite movies, things, colour, places etc.:** if you want to tell your favourites, which tell about your tastes and preferences to others.

- **Your Strengths and Weakness:** You can tell about your strengths and weaknesses.Make sure your weakness should not be absurd or incorrigible.

- **People you like and dislike**: You have to tell what kind people you like or what kind of people you dislike.

- Any turning point in your life

- How are you different from others

- **Conclusion:** In conclusion offer a memorable answer on the question the listeners probably will have when they have listen to your public speaking speech. Tell how this aspect of your life makes you what you are and who you are. It will be perfect ending to your self –introduction.

- Finally say thank you.

You will have to maintain your speech according to the time, generally 3 minutes and you have to make the speech depending on the section of people you are giving the speech and what you want to reveal about yourself.

Improving self-introduction

There are a few things that you can do that helps in making your self-introduction better:

- **Listen to what you are saying to yourself:** Notice what your inner voice is saying. Take some time to listen and even write down what you are thinking.
- **Monitor your self-talk:** Analyse that your self-talk is more positive than negative.
- **Change your introduction:** counter your negative thoughts with positive ones. Avoid speaking negative and try to look for things that might add a better spin to a tough situation.

6.5.3 Our Duties and Responsibilities

There are certain duties which are laid by the Constitution of India. These duties are very to be fulfilled by every citizen of India. These are as follows:

- To bear by the Constitution and respect its ideals and establishments, the national flag and also the national anthem.
- To encourage and respect the noble ideals that galvanized our national struggle for freedom.
- To uphold and protect the sovereignty, unity and integrity of Republic of India.
- To defend the country and render national service once called upon to do so.
- To promote harmony and also the spirit of respect amongst all the people of the Republic of India transcending religious, linguistic and regional diversities.
- To forbid practices derogative to the dignity of ladies.
- To preserve the rich and diversified heritage of our culture.
- To conserve the natural surroundings like forests, lakes, rivers and wild life, and to have compassion for living creatures.
- To develop the scientific temper, humanism and the spirit of inquiry and reform.
- To safeguard public property and to retract violence.
- To try towards excellence altogether spheres of individual and collective activity so that the nation perpetually rises to higher levels of endeavour and accomplishment.

These need to be followed by every citizen of India for development of the country.

6.5.4 Cooperation

The process of groups of organisms working or acting together for their mutual benefit is called coopration. Cooperation among family members, friends and peers is very common and healthy. It is the backbone of any society.

Family cooperation provides an avenue for a family to come closer. It increases coping skills and decision making. Some steps to promote family cooperation are:

Fig.6.5.3: Cooperation

- **Plan things together:** It calls for negotiation and compromise and teaches everyone to be more tolerant and considerable to other's viewpoint.

- **Share responsibilities:** Diving up necessaryhousehold responsibilities can be a good exercise in family cooperation.

Peer support occurs once individuals give knowledge, experience, and emotional, social or sensible help to each other. It's a distinct state of social support in this the source of support may be a peer an individual who is analogous in ways to the recipient of the support.

The effective peer support can be in form of:

- **Social Support:** In form of positive psychological interactions with others with whom there is mutual trust and concern.

- **Experiential Knowledge:** contributes to solve problems and improve quality of life.

- **Emotional support :** Esteem, attachment and reassurance

- **Instrumental Support:** Product and services.

How to be a cooperative person:For being a cooperative person following things needs to be done:

- Listen carefully to others and make sure you perceive what they're expressing.

- Share when you have something that others would really like to have.

- Take Turns once there's something that no-one desires to do, or when more than one person desires to do a similar factor.

- Compromise when you have a significant conflict.

- Do your part the very best that you just probably can. this can inspire others to do the same.

- Show appreciation to people for what they contribute.

- Encourage people to do their best.

- Make people needed. working together may be a lot more fun that manner.

- Don't isolate or exclude anyone. everyone has something valuable to offer, and nobody likes being omitted.

UNIT 6.6: Group Interaction

Unit Objectives ⊙

At the end of this unit, you will be able to:

1. Participate in group discussions in the class.

2. Give speech in the public.

3. Understand the importance of team building and team work.

6.6.1 Group Interaction

Every day we tend to meet with teams of individuals socially and professionally. However we interact to play a big role in the impressions we tend to produce. Interaction that happens whereas a group completes a cooperative task describes how the group works. For a successful and positive group interaction these steps needs to be followed:

Fig.6.6.1: Group Interaction

• Put your mobile phone away or place in silent mode.

• Greet everyone.

• Be friendly with everyone in the group.

• Show an interest in others by paying someone a compliment and listen carefully to what is being discussed.

• Be proactive and introduce yourself to others in the group.

• Sit up straight. Poor body posture is an indication of low self-esteem.

• Focus your attention on the person talking.

• Don't discount anyone's comment. Remember everyone is different and have different the ability to think.

• Think before you speak. Don't be too quick to jump into the conversation.

• Be a respect listener and observer.

• Include everyone when talking. Be sure to share eye contact with each person in the group.

• Unless there is a clear indication don't change the topic. Otherwise it will make people feel you are not interested in the topic.

• Don't start or participate in a side conversation. Don't allow their mistake to prevent you from being a good listener.

• Make sure to smile shake hands and embrace and use each person's name when conversation and the person's name when the discussion is over.
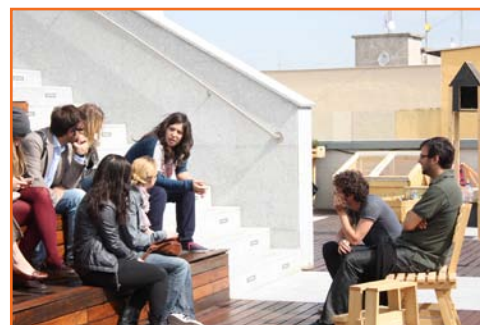
Everything you are doing in a group setting makes an effect on everybody in the group. Don't ever suppose something doesn't matter. Everything matters. Take every chance to take part in informal and formal group interactions. Begin by creating small contributions to discussion, prepare an issue to raise or accept as true with another person's remark. ask for other persons opinion.

6.6.2 Importance of Group Interactions

As a participant group interactions is important as:

- It helps you to get a subject more deeply.
- It improves your streangth to think positively.
- It helps in solving a serious issue.
- It helps the team to go on a final decision.
- It provides you the chance to listen to others' ideas.
- It improves your listening skills.
- It increases your confidence in communications.
- It can change your behaviour.

As a moderator a group interaction helps in:

- Understanding a member interpersonal skills.
- Identifying if a member is able to work in a team.
- Understanding ones behaviour.
- Selecting a perspective member in a perspective methodology.

Dos and Don'ts of Group Interaction

Do's	Don't
• Speak pleasantly and in a well mannered way to the group. • Respect the contribution of each speaker. • Remember that a discussion isn't AN argument. Learn to disagree in a well mannered way. • Think about your contribution before you speak. How best can you answer the question/ contribute to the topic? • Try to follow the discussion topic. do not introduce tangential information. • Be aware of your visual communication when you are speaking. • Agree with and acknowledge what you find fascinating.	• Lose your temper. A discussion isn't an argument. • Shout. Use a moderate tone and medium pitch. • Use too several gestures when you speak. Gestures like finger pointing and table thumping will appear aggressive. • Dominate the discussion. Confident speakers ought to enable quieter students an opportunity to contribute. • Draw too much on personal experience or anecdote. Although some tutors encourage students to reflect on their own expertise, keep in mind to not generalize an excessive amount of. • Interrupt. Wait for a speaker to complete before you speak.

Fig.6.6.2: Dos and Don'ts of Group Interaction

6.6.3 Team Work

Team work is a critical part of professional life. They can have a big impact on:

- The profitability of an organisation.

- People enjoy their work.

- Staff retention rates.

- Team and individual performance.

- Company reputation.

Importance of Team Building

Team building activities not only boost morale of the team members, but it can also increase the success rate of the teams. Team building is an important activity as it:

Fig.6.6.3: Team work

- **Facilitates better communication:** Activities that create discussion results in open communication among the employees, and among employees and management. This improves office environment also the quality of work.

- **Motivates employees:** The more comfortable team members are to share their ideas and opinions, the more confident they will be. This motivates them to take on new projects or challenges .

- **Promotes creativity:** Working closely with other team members increase creativity and promotes new ideas.

- **Develops problem-solving skills:** Team building activities that require team members to work closely to solve problems improves the ability to think rationally and logically. Teams that determine when a problem arises and knows the solution can work better when a real problem occurs.

- **Breaks the barrier:** Team building increases trust among workers.

Do and Don'ts of working in a Team

- **Don't argue in public:** if you have a disagreement with someone in the team find a neutral place to discuss the situation.

- **Do encourage each other:** when things get tough the tough gets going. Contribute to the team in trying situation.

- **Don't talk behind the backs: i**f you have trouble with some team member don't share with others. Go directly to the person in a kind and compassionate manner and share what is in your mind.

- **Do lend a hand:** if a team members is asking for help don't hesitate in helping him.

- **Don't be the weakest link:** Live up to your responsibilities, meet team expectations and communicate effectively in the team.

- **Give and receive feedback:** As a part of growing team give and receive feedback respectfully and graciously.

UNIT 6.7: Time Management

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Understand the importance of time management.
2. Develop time management skills.
3. Learn about effective time planning.

6.7.1 Time Management

Time management is the process of planning and practicing control over the time given to a specific task, especially to increase effectiveness, efficiency and productivity. It is an activity with the goal to increase the overall advantage of a set of activities within the limited condition of a limited time.

Some effective time management

- Delegate tasks.
- Identify time wasters.
- Combine activities – Plan for them.
- Break down big tasks down to the smallest task possible.
- Accomplish them one by one.
- At the end of the day conduct a simple analysis to see which activity took time.

Fig.6.6.1: Time management

6.7.2 Time Robbers

Time robbers are those activities which create interruption at the workplace. These activities create a deviation from the objectives which needs to be achieved. Time Robbers could be:

- Poor personal planning and scheduling.
- Interruptions by people without appointments.
- Poor delegation.
- Poor use of the media: Telephone, Mobile, e-mail, and fax, etc.
- Reading junk mail.
- Lack of concern for god time management.
- Lack of clear priorities

The Time Robbers can be avoided by:

- Be active all the time.

- Develop and maintain an organized personal activity schedule.

- Set your priorities.

- Proper delegation.

- Utilize modern technical media.

6.7.3 Pareto Analysis

- According to this 80% of the tasks can be completed in 20% of the time. The remaining 20 % of the tasks take 80 % of your time. And the task which should fall in first category should be given a higher priority.

- Time also depends on the type of method adopted to process the task. Methods should always be simpler and easier to complete the task. If we use difficult ways, it shall be result the waste of time. One should always try to find out alternate ways to complete a task.

Urgent Important Matrix

1.The Urgent and Important Tasks	2. The Non Urgent but Important Tasks
DO NOW • Emergencies, complaints and crisis issues • Superiors desire • Planned tasks or project work now due • Meetings with superiors/colleagues	PLAN TO DO THEM • Planning, preparation • Scheduling • Designing, testing • Thinking, creating, modeling the data
3. The Non Important but Urgent Tasks	**4. The Non Important and non-Urgent Tasks**
REJECT AND EXPLAIN • Small requests from others • Ostensible emergencies • Misunderstandings rising in work • Pointless routines or activities	RESIST AND CEASE • Comfort' activities, computer • Games, net surfing, excessive • Cigarette breaks • Chat, gossip, social • Communications • Reading irrelevant and useless material

Fig.7.6.2: Urgent Important Matrix

This matrix helps you understand:

- What should be done

- What should be planned

- What should be resisted

- What should be rejected

The simplest method of managing time is to create a general to do list. Prioritize the task list:

- A daily list of things to do, numbered in the order of their priority

- Start with the most unpleasant and difficult task first latter will completed easily and quickly.

- Map out everything while making a task list

- Learn to say "No" to unimportant things

- Strikeout the things completed so that you are familiar what have been completed and what needs to be completed.

List down the routine activities that you perform in a day.

....

....

....

....

Prioritize the above mentioned activities in the following heads.

Important Tasks	Unimportant Tasks	Urgent Tasks	Not Urgent Tasks

UNIT 6.8: Resume Preparation

Unit Objectives

At the end of this unit, you will be able to:

1. Understand the importance of resume.
2. Learn how to prepare a resume.

6.8.1 Introduction

A resume is a self-declaration which once done properly shows how an individual's skills, experience and achievements matches the need of the work that they wish to get. The sole purpose of a resume is one to win an interview. It convinces the future employer what he wants from the prospective employee in new career or position.

It also establishes an individual as a professional person with high standards and excellent writing skills based on the fact that his resume is written well. It also helps you clarify your direction, qualifications and strengths, boost your confidence or to start out the process of committing to a job or a career modification.

Fig.6.8.1: A resume

One must know about a resume that:

• Your resume is an instrument to get you an interview but not a job

• Employer will be screen your resume for just 15-20 seconds. That's the time your resume will make an impact on employer.

There are different sections on the resume in the same order as mentioned under:

Section	What is the employer looking for
Header	Your identity and to contact you
Objective	To check if their requirement and your objective match
Education	To check if you have the basic qualification for the job/internship you are applying for
Practical Experience/Projects	To see if you have done anything that reflects your potential capability. Also to see how different you are from your peers.
Skills	How equipped you are in terms of your personality traits as well as occupational skills
Interests	Professional aspects apart, how meaningful is your life?
Other	Is there anything else significant and relevant you want to showcase, that will add value to your resume.

Fig.6.8.2: Different sections on the resume

Preparation work and important tips

Before you start preparing your resume make sure to follow the checklist:

- Educational documents from class ten onwards to calculate scores

- Make list of all things that you need to add to your resume. Like internships, projects, part time jobs, extracurricular activities, sports, training, skills, interests etc. the list doesn't need to be complete, you'll always add to the list as you go.

Before preparing resume always remember:

- Every point in your resume should be specific and must be supported be supported by a number of factual information.

- Use action verbs in all your points. They catch attention immediately and make your sentences clear.

- Use bullets not paragraphs.

- Do not mention your responsibilities mention what you have accomplished.

- A common mistake we make while constructing the resume is to copy the format from our friends resume and built it based on that.

6.8.1.1 Resume Header

Purpose: You have to provide some information about yourself, so that the employer can reach you.

Mandatory fields include: Name, current address, email id, phone number, date of birth. Your name should be written in bigger font.

Do Not:

- Include your photo.

- Write RESUME as heading to the file.

- Give details like family information, marital status, etc.

- Add these details to the bottom of your resume or occupy more space to fill up these details.

6.8.1.2 Framing the Objective

Purpose: To convey the employer what goals you have. The focus should be towards getting a particular position in a specific industry.

Always remember:

Your objective should include the following:

- Position wanted

- Functional area

- Industry wanted

- Be specific and restrict it to minimum words.

- You objective should be different to each role you apply to

- While writing the objective, keep the employers requirement in mind. The objective is not what you desire from the company, it's about company's need.

6.8.1.3 Education

The next session in your resume is to highlight your educational qualifications.

Purpose: For the employer to know whether you have basic qualification for the job for which you are applying or not.

Always Remember:

- To write all educational qualifications from class 10 to highest education.

- For class 10 and 12 – include school/college name, Board, Stream/Specialization (If any), year of study, Marks.

- For undergraduate – include College name, University name, Degree and Specialization, year of study.

- Write all your qualifications in reverse chronological order, i.e. the latest qualification on top.

- You may write the educational qualifications in a tabular format or in a simple one after the other order.

6.8.1.4 Projects and Internships

The next part of your resume includes the hands on work that you have done, like projects, internships, in-plant training, part time jobs, volunteering, starting up a company and other initiatives. The number and the nature of initiatives taken defines whether to keep one heading or detail them under different headings.

Purpose: This is a mandatory part of a resume, as your hands on work and the initiatives you have taken apart from your curriculum in what will reflect your real streangth as well as saperate your resume from your peers.

Remember:

- The heading should be – title / project name, role, company/organisation name, -2 lines description about the specific time period.

- Time period is must.

- The entries under each heading must be in reverse chronological order.

- Be very specific on what you have accomplished. Add numbers and facts wherever possible.

Do Not:

- Do not write simple statements. It does not give employer a clear picture of the work you have done. Thus the employer can assume that you have done an internship for the certificate.

6.8.1.5 Skills

Heading: You can have multiple headings under skills. Common heading can include:

- **Soft Skills:** must include, they showcase your personality traits.
- **Core occupational skills:** Optional include if you possess any core skills. These are skills you possess relevant to the role you are applying for.
- **IT Skills:** Optional, suggestive to include if you are applying for IT/software related roles.

Remember:

- List your skill and add a point which supports your skill the best.
- Make specific points. Add numbers and facts wherever possible.
- Pick only three to four soft skills that describes you the best.
- Dig your past to discover the best of these skills you possess and the best example you can quote to support it.

6.8.1.6 Interests

In this section of your resume carefully choose which of interests you want to showcase on your resume so that they can make your life seem meaningful.

The interests you showcase talk about your character. These interests frequently come up as a subject of discussions during the interviews, therefore sagely choose what to show.

Remember:

- List interests which are meaningful and display some learning.
- Support the interest you have listed
- Make points specific and add supporting fact to it.
- Do not just list random cluster of interests like: adventure, guitar, reading, environment
- Never include interests like partying, watching movies etc. they create wrong impression.

6.8.1.7 References

Give References

The very last thing on your resume ought to be a list of 2-4 professional references. These are all those who you're not related to, but whom you have handled in a professional manner. you would possibly think about previous leader, faculty member or volunteer coordinator to include on your reference page.

- Include the name of the reference, their relationship to you, mailing address, e mail and telephone number.
- The place you're applying to could contact these people, therefore always call them in advance to allow them to understand that you are using them for a reference and are presently applying for a job.

6.8.1.8 Points to Remember

- Make sure that the length of your resume doesn't exceed a pair of pages.

- Do a thorough recheck and confirm there are fully no errors in your resume. No grammatical errors, no spelling mistakes, no punctuation errors.

- Run through your resume time and again for to create enhancements and phrasing sentences better.

- Choose a professional font in a size eleven or twelve. You can use multiple fonts for different elements of resume, but try to limit it most of two fonts. Instead changing between fonts, strive creating specific sections bold or italicized instead.

- The font size of your header and the introduction to a part may be a size fourteen or sixteen.

- Your text should be printed in solid black ink. Ensure to deactivate any hyperlinks so that they don't print in blue or other contrastive colour.

- Your page ought to have one inch margin all the way around with 1.5 or 2 point line spacing. The body of your resume ought to align left and your header should be centred at the top of the page.

UNIT 6.9: Interview Preparation

Unit Objectives ⊚

At the end of this unit, you will be able to:

1. Understand the procedure of interview.

2. Go thorough mock interviews.

3. Understand how to present themselves during an interview.

4. Motivated to work after the training period is over.

6.9.1 Interview

An interview is a conversation between two or more individuals (the interviewer(s) and the interviewee) wherever queries are asked by the interviewer to get information from the interviewee. An interview is the first and last hurdle you need to cross in order to get employment.

Fig.6.9.1: Interview

Common Types of Interview

1. **Traditional HR Interview:** Most of the interviews are face to face interviews. The most traditional is a one-to-one conversation with the Human Resources Executive where the candidate's focus should be on the person asking question. You are advised to maintain good eye contact, listen keenly and answer promptly.

2. **Panel Interview:** In this situation, there is more than one interviewer. A panel ranging from two to ten members may conduct this part of the selection process. This is an ideal chance for you to display group management and group presentation skills.

3. **Technical interview:** The objective of this interview is to basically evaluate technical knowledge. Majority of the questions will be based on the skills sets mentioned in the candidate's resume.

4. **Telephonic Interview:** Telephonic interviews are used for initial screening of candidates who live far away from the job site.

Before going for an interview, it is important to have clarity of the role you are applying for. It's also important that for you to know where you are applying and whom will you be talking to. Your answers should tell the employer that you are the match they are looking for.

This requires you to do a small research on the following fields:

- Company & Field
- Job Description
- Yourself (Skills, Values & Interests)
- Resume (Experience)

If you were an employer, you would have chosen a person who is sure of himself, calm and confident. So it's important that you are:

- Confident
- Relaxed
- Sure of yourself
- Prepared
- Before, during and after the interview, it is important for you to be prepared.
- Dress Professionally

It is important that you dress professionally. It is a proven fact that the way we dress makes a huge difference in the way we are perceived. 90% of the way you communicate with other people is through body language (gestures, expressions, etc.) and the first Impression we make. It is very simple to make a great first impression.

For a good first impression it is important those we:

- Smell good
- Have a professional appearance
- Pay attention to your grooming
- Make eye contact
- Know what and how you speak
- Our overall personality contributes to our complete perception.

How to dress for Interview

Men	Women
Long-sleeved buttoned shirt (clean and pressed)	**Conservative pump, no stilettos**
Dark shoes (cleaned and polished) and dark socks	Jewellery -One set of earrings (preferably knobs)
Get a haircut (short hair is always best)	No bangles
No Jewellery (chains, earrings, piercing)	Minimal use of makeup
No beards or Tattoos	

Fig.6.9.2: Dress for Interview

6.9.2 The Do's and Don'ts in an Interview

Some of you might have faced an interview and some of you might not have. However, by now, you definitely have a better understanding what are the accepted standards of a professional behaviour. Read the sentences given and mark them as do's or don'ts, in relation to an interview:

Sentence	Do's	Don'ts
Be yourself		
Burp while talking!!!		
Just out from a 'powder factory' (worn too much make-up)		
Reach just about the right time for the interview		
Just barge in the cabin/ office		
Forget to greet the receptionist/ don't respond		
Think before you speak		
Do your homework- Visit the company website		
Take time to think (TTTT)		
Wear bright colour clothes on the D-day		
Emphasis on your strengths		
Argue/ Debate with the interviewer		
Chew gum during the interview.		
Review your educational and work experiences		
See your documents flying out of the file (Being clumsy)		
Thank the interviewer		
Have the 'they need me' attitude		
Maintain eye contact and good body language		
Only give monosyllabic answers(depends on the kind of questions asked…in-between)		
Carry a copy of your resume		

Fig.6.9.3: Do's and Don'ts in an Interview

6.9.3 During the Interview

- Be confident, not arrogant
- Sell yourself - Keep your energy up
- Maintain your posture
- Be positive, don't complain
- Know your resume and accomplishments.

It isn't sufficient to have ideas. They have to be expressed effectively in the interview. The parameters that the candidates are assessed on during the interview are very simple. These are the parameters that this training program has prepared you for.

6.9.4 Active Listening

- Clarity on ideas and expressions
- Correct language
- Good body language
- Fluency
- Ideas should be expressed fluently in the right tone, right voice, and right articulation

Notes

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