Adobe Photoshop

Photoshop format (**PSD**) is the default file format and the only format that supports all Photoshop features. When saving a PSD file for use in a previous version of Photoshop, you can set a preference to maximize file compatibility.

Photoshop provides tools for **creating and manipulating static images for use on the Web**. You can divide an image into slices, add links and HTML text optimize the slices, and save the image as a Web page. With its comprehensive set of retouching, painting, drawing, and Web tools, Photoshop helps you complete any image-editing task efficiently. And with features like the **History palette** and **editable layer effects**, you can experiment freely without sacrificing efficiency.

You can often use the Cut or Copy command to copy selections between Photoshop and other applications. In Photoshop, the new paste image will be in the new layer.

File Format

1. **JPEG: Joint Photographic Experts Group** (JPEG) format is commonly used to display photographs and other continuous-tone images in hypertext markup language (HTML) documents over the World Wide Web and other online services. A JPEG image is automatically decompressed when opened.
2. **TIFF: Tagged-Image File Format** (TIFF) is used to exchange files between applications and computer platforms. TIFF is a flexible bitmap image format supported by virtually all paint, image-editing, and page-layout applications.
3. **BMP: Bitmapped Graphics Format** is a standard Windows image format on DOS and Windows-compatible computers. BMP format supports RGB, Indexed Color, Grayscale, and Bitmap color modes.
4. **PSD: Photoshop format (PSD)** is the default file format and the only format that supports all Photoshop features. When saving a PSD file for use in a previous version of Photoshop, you can set a preference to maximize file compatibility.
5. **GIF: GIF file format usually provides the most efficient and flexible optimization controls** for images which have areas of flat colour with sharp edges and types.
6. **HTML:** is the predominant markup language for web pages. It provides a means to describe the structure of text-based information in a document — by denoting certain text as links, headings, paragraphs, lists etc.

JPEG	Joint Photographic Experts Group
PSD	Photoshop Document
TIFF	Tagged Image File Format
BMP	Bitmap
HTML	Hyper Text Markup Language
RGB	Red Green Blue
CMYK	Cyanin Magenta Yellow Black
GIF	Graphics Interchange Format
PNG	Portable Network Graphics

Image Mode

Rani Mohan

1. Grayscale: This mode uses up to 256 shades of gray. Every pixel of a grayscale image has a brightness value ranging from 0 (black) to 255 (white). Images produced using black-and-white or grayscale scanners typically are displayed in Grayscale mode.

2. RGB Colour: RGB is an important colour model because it mirrors the way the human eye perceives colour. Red Green Blue are referred to as the additive primaries. You can add varying proportions of the three colours to produce millions of different colours.

3. CMYK colour model : The CMYK model is based on the light-absorbing quality of ink printed on paper. In theory, pure cyan (C), magenta (M), and yellow (Y) pigments should combine to absorb all light and produce black. It is important because this is the colour model used by printing presses.

Image
1. Canvas Size: The Canvas Size command lets you add or remove work space around an existing image. You can crop an image by decreasing the canvas area.

1. **Image Size:** In Photoshop, the Image Size command lets you adjust the pixel dimensions, print dimensions, and resolution of an image.
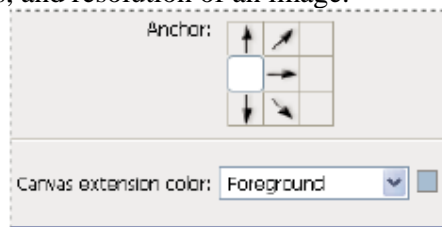
Original canvas and canvas added to right side of image using the foreground color

Change the canvas size

The canvas size is the full editable area of an image. **The Canvas Size command** lets you increase or decrease an image's canvas size. Increasing the canvas size adds space around an existing image.

1. Choose Image > Canvas Size.
   - Enter the dimensions for the canvas in the Width and Height boxes.
   - Enter a positive number to add to the canvas, and enter a negative number to subtract from the canvas.
2. For Anchor, click a square to indicate where to position the existing image on the new canvas.
3. Choose an option from the Canvas Extension Color menu:
   - Foreground to fill / Background to fill the new canvas with the current foreground color
4. The Canvas Extension Color menu isn't available if an image doesn't contain a background layer.
5. Click OK.

2

Layers: Layers introduce a considerable degree of flexibility into the way in which you can work with images. Layers help you to keep various image elements

Photoshop layers are like sheets of stack acetate. You can see through transparent areas of a layer to the layers below. You move a layer to position the content on the layer, like sliding a sheet of acetate in a stack. You can also change the opacity of a layer to make content partially transparent.

Benefits of Layers in Adobe Photoshop

1. Using a separate layer for each type of edit you apply to an image gives you more flexibility.
2. Layers allow you to work on individual elements of an image without affecting others.
3. Layers as a stack of paper, where each page represents a different layer, such as changing their order in the stack or making some more transparent than others.
4. You can change the attributes of a layer by applying adjustments.
5. Layers are separated so that you can make changes without deleting the underlying pixels. You can selective merge layers into each other.
6. When you finished editing your image, you can flatten the image to merge all layers into a single background layer.
7. Layer can create increases the file size of the image. Only TIFF and PSD file formats help you to save with layers.

Photoshop Layers palette

A. Layers palette menu, **B.** Layer Group **C.** Layer **D.** Expand/Collapse Layer effects **E.** Layer effect **F.** Layer thumbnail

1. Rasterizing layers: You cannot use the painting tools or filters on layers that contain vector data and generated data However; you can rasterizing these layers to convert their contents into a flat, raster image.
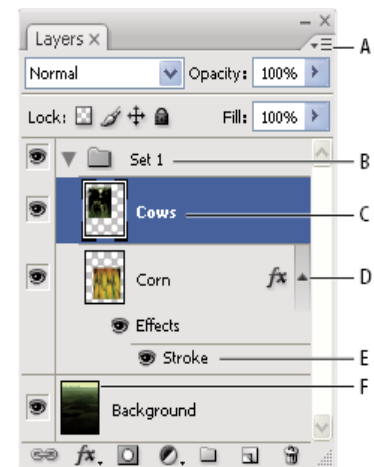
2. Layer effects and styles: Photoshop provide a variety of effects--such as shadows, glows, bevels, overlays, and strokes--that let you quickly change the appearance of a layer's contents. Layer effects are linked to the layer contents. When you move or edit the contents of the layer, the effects are modified correspondingly.

3. Layer Opacity: A layer's opacity determines to what degree it obscures or reveals the layer beneath it. A layer with 1% opacity appears nearly transparent, while one with 100% opacity appears completely opaque.

4. Fill Layers: Adjustment layers and fill layers have the same opacity and blending mode options as image layers and can be rearranged, deleted, hidden, and duplicated in the same manner as image layers.

Layer Mode / Blend Mode (any six)

1. **Normal:** Edits or paints each pixel to make it the result color. This is the default mode.
2. **Multiply** blend mode which darkens images, great for restoring shadows and fixing overexposed photos.

Rani Mohan

3. **Screen mode** which lightens images, perfect for brightening highlights and fixing underexposed photos.
4. **Overlay:** Multiplies or screens the colors, depending on the base color.
5. **Color Burn:** each channel and darkens the base color to reflect the blend color by increasing the contrast.
6. **Linear Burn:** each channel and darkens the base color to reflect the blend color by decreasing the brightness.
7. **Lighten:** the color information in each channel and selects the base or blend color-- whichever is lighter--as the result color.
8. **Color Dodge:** each channel and brightens the base color to reflect the blend color by decreasing the contrast.
9. **Linear Dodge:** the color information in each channel and brightens the base color to reflect the blend color by increasing the brightness.
10. **Soft Light:** Darkens or lightens the colors, depending on the blend color.
11. **Hard Light:** Multiplies or screens the colors, depending on the blend color.
12. **Vivid Light:** Burns or dodges the colors by increasing or decreasing the contrast, depending on the blend color.
13. **Linear Light:** Burns or dodges the colors by decreasing or increasing the brightness, depending on the blend color.
14. **Pin Light:** It replaces the colors, depending on the blend color.
15. **Difference:** the color information in each channel and subtracts either the blend color from the base color or the base color from the blend color, depending on which has the greater brightness value.
16. **Exclusion:** Creates an effect similar to but lowers in contrast than the Difference mode.
17. **Hue:** Creates a result color with the luminance and saturation of the base color and the hue of the blend color.
18. **Saturation:** Creates a result color with the luminance and hue of the base color and the saturation of the blend color.
19. **Color:** Creates a result color with the luminance of the base color and the hue and saturation of the blend color.
20. **Luminosity:** Creates a result color with the hue and saturation of the base color and the luminance of the blend color.

Convert background to layers

When you create a new image with a white background or a colored background, the bottommost image in the Layers **palette is called Background**. An image can **have only one background** layer. You can convert a background into a regular layer, by **double click** on the lock inside the background layer and then change any of these attributes.

Lock layers: You can lock layers fully or partially to protect their contents.

Duplicate layers : You can duplicate layers within an image or into another or a new image. Select a layer or group in the Layers palette.

Drag the layer or group to the New Layer button .
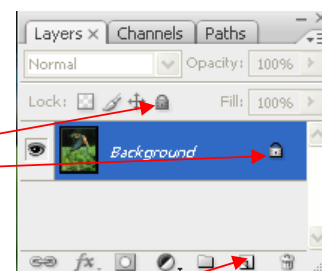
Opacity for a layer

Fill opacity affects pixels painted in a layer or shapes drawn on a layer without affecting the opacity of any layer effects that have been applied to the layer.

Blending Options

You can edit styles applied to a layer or create new styles using the Layer Styles dialog box.

Layer Styles dialog box. Click a check box to apply the current settings without displaying the effect's options. Click an effect name to display its options.
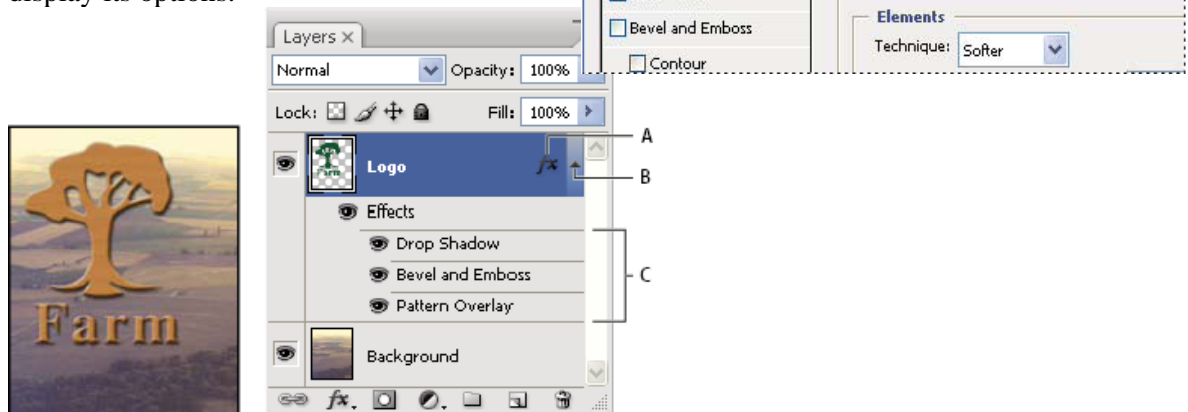
Layers palette showing layer with multiple effects applied
A. Layer effects icon **B.** Click to expand and show layer effects **C.** Layer effects

1. Drop Shadow: Adds a shadow that falls behind the contents on the layer.
2. Inner Shadow: Adds a shadow that falls just inside the edges of the layer's content, giving the layer a recessed appearance.
3. Outer Glow and Inner Glow: Add glows that emanate from the outside or inside edges of the layer's content.
4. Bevel and Emboss: Adds various combinations of highlights and shadows to a layer.
5. Satin: Applies shading to the interior of a layer that reacts to the shape of the layer, typically creating a satiny finish.
6. Color, Gradient, and Pattern Overlay: Fills the layer's content with a color, gradient, or pattern.
7. Stroke: Outlines the object on the current layer using color, a gradient, or a pattern. It is particularly useful on hard-edged shapes such as type.

Repeat a transformation
Choose Edit > Transform > Again, Edit > Transform Path > Again, or Edit > Transform Points > Again.

Working with Type (text)
You can create and edit type directly in the image window. The type is preserved as vector outlines or paths (Photoshop can output type with sharp, resolution independent edges.)
The masked type option allows you to create complex selections in the shape of type characters. You can choose different alignments vertically and horizontally for type, you can rotate it, fill it with a gradient, pattern or image and create translucent type.

Type effects: It provides variety of creative technique for producing interesting effects with type.
1. **Type on a path**: You can create type that follows a path created using the Pen tool or a Shape tool
2. **Wrap Type:** It allows you to adjust paragraph lines in both left and right margin

3. **Word Art:** helps you to design a word in different style

Image Adjustment (any Five)

1. **The Auto Color** adjusts the contrast and color of an image by searching the image to identify shadows, midtones, and highlights. By default, Auto Color neutralizes the midtones using a target color of RGB 128 gray and clips the shadows and highlight pixels by 0.5%. You can change these defaults in the Auto Color Correction Options dialog box.

2. **Levels**: The Levels dialog box lets you correct the tonal range and color balance of an image by adjusting intensity levels of the image's shadows, midtones, and highlights.

A. Shadows **B.** Midtones **C.** Highlights **D.** Apply Auto Color Correction **E.** Open Auto Color Correction Options dialog box
Eg:

1. **Curves:** You can adjust the tonality and color of an image by changing the shape of the curve in the Curves dialog box. [Moving the curve upward or downward lightens or darkens the image, depending on whether the dialog box is set to display levels or percentages. The steeper sections of the curve represent areas of higher contrast; flatter sections represent areas of lower contrast.
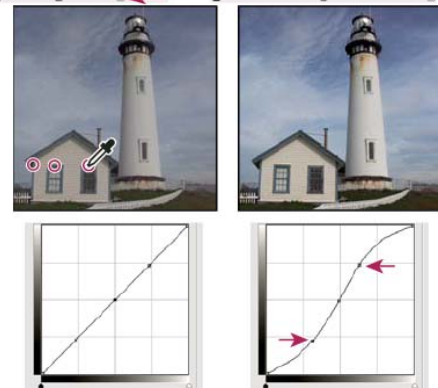
 3. **Color Balance:** Drag a slider toward a color you want to increase in the image; drag a slider away from a color you want to decrease in the image.

4. **Brightness/Contrast:** The Brightness / Contrast command lets you make simple adjustments to the tonal range of an image. Specify values for Brightness and Contrast.

5. **Hue/Saturation:** The Hue/Saturation command lets you adjust the hue, saturation, and lightness of the entire image or of individual color components in an image. This command is especially good for fine-tuning colors in a CMYK image so that they are in the gamut of an output device.

6. **Selective Color:** Selective color correction is a technique used by high-end scanners and separation programs to increase and decrease the amount of process colors in each of the additive and subtractive primary color components in an image.

7. **Channel Mixer:** The Channel Mixer command lets you modify a color channel using a mix of the current color channels.

8. **Gradient Map:** The Gradient Map command maps the equivalent grayscale range of an image to the colors of a specified gradient fill.

9. **Desaturate:** The Desaturate command converts a color image to a grayscale image in the same color mode.

10. Invert: The Invert command inverts the colors in an image. You might use this command to make a positive black-and-white image negative or to make a positive from a scanned black-and-white negative.

10. Threshold: The Threshold command converts grayscale or color images to high-contrast, black-and-white images. You can specify a certain level as a threshold. All pixels lighter than the threshold are converted to white; all pixels darker are converted to black.
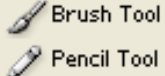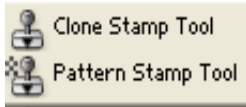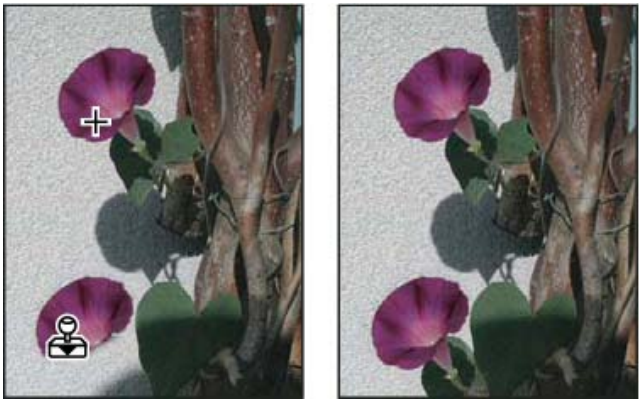
11. Posterize: The Posterize command lets you specify the number of tonal levels (or brightness values) for each channel in an image and then maps pixels to the closest matching level.
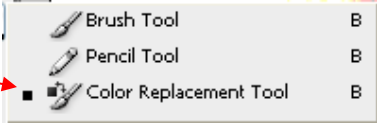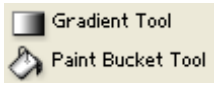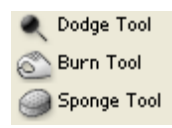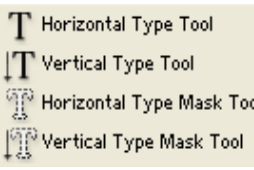
Short cut keys for other functions
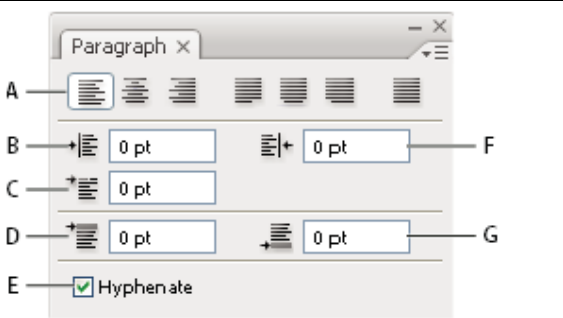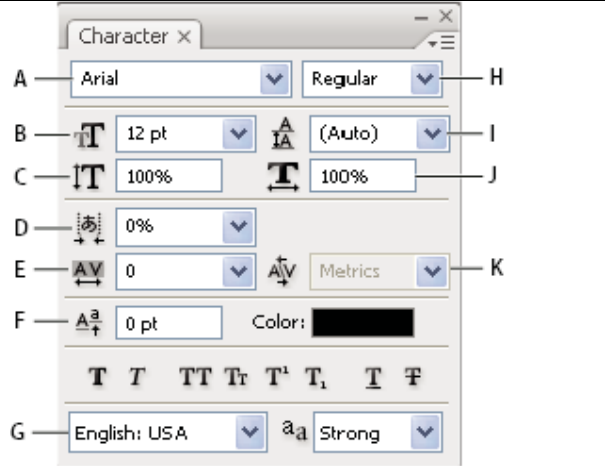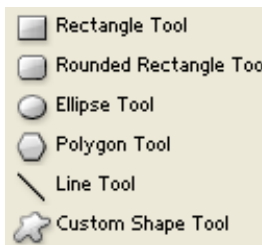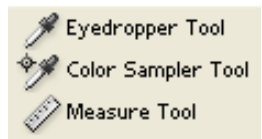
Ctrl + D	–	Deselect
Ctrl + A	–	Select All
Ctrl+Z	–	Undo
Ctrl + Alt + Z	-	Step backwards for undo
Shift + Alt + Z	-	Step Forwards
Ctrl + C	–	Copy
Ctrl + X	–	Cut
Ctrl + V	–	Paste
Ctrl + T	–	Free Transform
Ctrl + E	–	Merge Down
Shift + Ctrl + E	–	Merge Visible
Ctrl+r	-	Ruler

Adobe Photoshop Tools

Rectangular Marquee Tool Elliptical Marquee Tool Single Row Marquee Tool Single Column Marquee Tool	The marquee tools let you select rectangles, ellipses, rounded rectangles, and 1-pixel rows and columns. By default, a selection border is dragged from its corner.
	Elliptical marquee to make an elliptical selection.
	Single row or single column marquee to define the border as a 1-pixel-wide row or column.
Move tool.	The move tool lets you drag a selection or layer to a new location in the image.

Lasso Tool ■ Polygonal Lasso Tool Magnetic Lasso Tool	Lasso and Magic wand tools are used for selections in Photoshop to isolate editing to specific areas in an image, or for cutting out portions of an image. • **Lasso tool:** The regular lasso tool allows you to make freehand selections. Whenever you let up on the mouse button, your selection will automatically close, forming a straight line between the start and end points. • **Polygon Lasso tool:** allow you to draw a straight segment (line), to make selections. • **Magnetic lasso tool** works similarly to the other lasso tools, but it has special powers that can detect areas of contrast, and it will snap or move the pointer along the edge you want to trace. With the magnetic lasso tool the border snaps to the edges of defined areas in the image is especially useful for quickly selecting objects with complex edges set against high-contrast backgrounds.
Magic wand tool.	The magic wand tool lets you select a consistently colored area without having to trace its outline and is especially useful for quickly selecting objects with complex edges set against high-contrast backgrounds.

Crop tool Cropping is the process of removing portions of an image to create focus or strengthen the composition. You can also trim pixels using the Crop And Straighten and the Trim commands. **Using the Crop too**	
Brush Tool Pencil Tool	Photoshop provides the **Brush tool and the Pencil tool** to let you paint with the current foreground color. By default, the brush tool creates soft strokes of color and the pencil tool creates hard-edged, freehand lines.
Clone Stamp Tool Pattern Stamp Tool	The Clone stamp tool takes a sample of an image, which you can then apply over another image or part of the same image. You can use any brush tip with the Clone Stamp tool, which gives you precise control over the size of the clone area. You can also use opacity and flow settings to control how paint will be applied to the cloned area. Altering an image with the Clone Stamp tool

Rani Mohan

The Pattern stamp tool lets you paint with a pattern. You can select a pattern from the pattern libraries or create your own patterns.

Replace color in image areas

The Color Replacement tool simplifies replacing specific colors in your image. You can paint over a targeted color with a corrective color.

1. Select the Color Replacement tool.
2. Choose a brush tip in the options bar.
3. For tolerance, enter a percentage value (ranging from 0 to 255) or drag the slider.
4. To define a smooth edge in the corrected areas, select Anti-aliased.
5. Choose a foreground color to replace the unwanted color.
6. Click the color you want to replace in the image.
7. Drag in the image to replace the targeted color.

Gradient Tool Paint Bucket Tool	The **Gradient Tool** creates a gradual blend between multiple colors. You can choose from preset gradient fills or create your own. The **Paint Bucket** tool fills adjacent pixels that are similar in color value to the pixels you click.
Dodge Tool Burn Tool Sponge Tool	The toning tools consist of the **Dodge tool and the Burn tool**. Used to lighten or darken areas of the image, the dodge and burn tools are based on a traditional photographer's technique for regulating exposure on specific areas of a print. The **Sponge Tool** subtly changes the color saturation of an area. In Grayscale mode, the tool increases or decreases contrast by moving gray levels away from or toward the middle gray.
Horizontal Type Tool Vertical Type Tool Horizontal Type Mask Tool Vertical Type Mask Tool	You can create **Horizontal or vertical type** anywhere in an image. Point type is useful for entering a single word or a line of characters; paragraph type is useful for entering and formatting the type as one or more paragraphs. When you use the **Horizontal type mask tool** or **Vertical Type Mask tool**, you create a selection in the shape of the type. Type selections appear on the active layer, and can be moved, copied, filled, or stroked just like any other selection.

Paragraph palette

A. Alignment and justification
B. Left indent
C. First line left indent
D. Space before paragraph
E. Hyphenation
F. Right indent
G. Space after paragraph

Character palette overview

A. Font Family **B.** Font Size **C.** Vertical Scale **D.** Set T sume option **E.** Tracking **F.** Baseline Shift **G.** Language **H.** Font Style **I.** Leading **J.** Horizontal scale **K.** Kerning

Rectangle Tool Rounded Rectangle Tool Ellipse Tool Polygon Tool Line Tool Custom Shape Tool	you can use the drawing tools to create a work path; you can draw multiple shapes in a layer and specify how overlapping shapes interact You can **draw multiple shapes in a layer** and specify how overlapping shapes interact. When you're using the C**ustom Shape tool**, you can choose from a variety of preset shapes. You can also save shapes that you create as preset shapes. Each **Shape tool** provides specific options; for example, you can set options that allow you to draw a rectangle with fixed dimensions or a line with arrowheads.
Eyedropper Tool Color Sampler Tool Measure Tool	The **Eyedropper tool** ( ) samples color to designate a new foreground or background color. If you selected the **color sampler tool** ( ), place up to four color samplers on the image. Click where you want to place a sampler. The **measure tool** calculates the distance between any two points in the work area. **The measure tool** calculates the distance between any two points in the work area.
Hand tool	If the entire image is not visible in the document window, you can navigate to bring another area of the image into view.
Zoom tool	You can Magnify or reduce your view using various methods. Select the **Zoom tool** . The pointer becomes a magnifying glass with a plus sign in its center. Click the area you want to magnify. The Pointer becomes a Magnifying glass with a minus sign in its center. Click the center of the area of the image you want to reduce.

Rani Mohan

The points required for designing a greeting card

1. **Layout:**
   a. **Size:** Select the height and width of the card is in inches, centimeters
   b. **Resolution:** More resolution improves the quality of the cards
   c. **Colour:** It can be RGB (Red, Green, Blue) or CMYK (Cyanine Magenta Yellow Black)
2. **Layers:** Inserting different layers for images are very important in making a greeting card. By using layers we can move/edit and apply effects to images or backgrounds according to our choices
3. **Importing an Image**: Before inserting images into the canvas, check images are in proper file format, size and the correct colour mode, if not adjust the colour mode and size in Photoshop.
4. **Editing an image**: Image can be resized using image size command or free Transform (Ctrl+T) depends on the size you want.
5. **Inserting and Editing Text:** we can insert text directly on the canvas. After entering text, we can edit its colour, size, font etc. We can also add effects and word art into the text.
6. **Adding effect:** Through Blending options, Layer mode and image adjustments we can apply various effects to each layers.
7. **Final File format:** After finishing the card in Photoshop the final copy should be in JPEG or TIFF format for printout.

Rani Mohan