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.

Bitmap and Vector based

1. **Vector-based** Image editing applications differ fundamentally from **Vector-based** applications such as **Adobe Flash / Adobe Illustrator** etc. In these applications, you work with objects that can be moved, scaled, transformed, stacked and deleted as individual or grouped objects, but all the time each exists as a complete, separate object.

Vector based applications, as each object is defined by a mathematical formula. Because of this they are resolution –independent-you can scale vector drawing up or down and they are print smoothly and crispy.

2. **Bitmaps** A bitmap image consist of a rectangular grid, of pixels concepts. When you edit a bitmap you are editing the colour values of individual pixels or group of pixels. Bitmap images are created at a set resolution – a fixed number or pixels per inch.

Eg: If you scan an image at a specific resolution, then double its size.

An important factor when the digital data for an image is captured, typically at the scanning stage, is its bit-depth. Bit-depth refers to the amount of digital storage space used to record information about the colour of pixels.

Pixels and Resolution

1. **Pixels:** A pixels is the smallest element in a bitmap image from a digital camera or a scanner. Pixel means "**Picture Element**". The pixel dimension (image size or height and width) of a bitmap image is a measure of the number of pixels along an image's width and height.

2. **Resolution:** A key factor when working on bitmap image is resolution. This is measured in pixels per inch. Resolution is the fineness of detail in a bitmap image and is measured in pixels per inch (ppi). The **more pixels per inch, the greater the resolution**. Generally, an image with a higher resolution produces a better printed image quality.

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. <u>**BMP: Bitmapped Graphics Format**</u> is a standard Windows image format on DOS and Windows-compatible computers. BMP format supports RGB, Indexed Color, Grayscale, and Bitmap color modes.

4. <u>**PSD: Photoshop format (PSD)**</u> 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. <u>**GIF: GIF file format usually provides the most efficient and flexible optimization controls**</u> for images which have areas of flat colour with sharp edges and types.

6. <u>**HTML:**</u> 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

1. <u>Grayscale:</u> 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. <u>RGB Colour:</u> 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. <u>CMYK colour model</u> : 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.

<u>**Layers:**</u> 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.

<u>**Layers:**</u> 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

A. Adjustment layer confined to Log Home layer only
B. Layer thumbnail, **C.** Fill layer
D. Layer mask
ts separate so that you can make changes without deleting the underlying pixels. You can selective merge layers into each other.

2

Rani Mohan
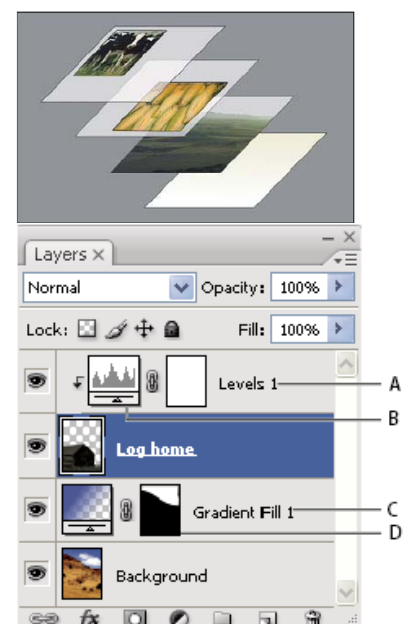
When you finished editing your image, you can flatten the image to merge all layers into a single background layer.

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
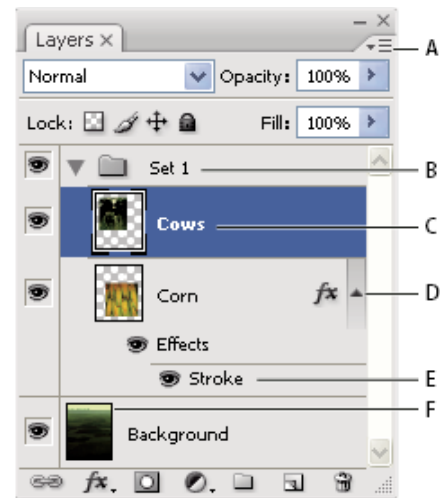
1. Rasterizing layers: You cannot use the painting tools or filters on layers that contain vector data (such as type layers, shape layers, and vector masks) and generated data (such as fill layers). However, you can rasterize these layers to convert their contents into a flat, raster image.

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.

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.
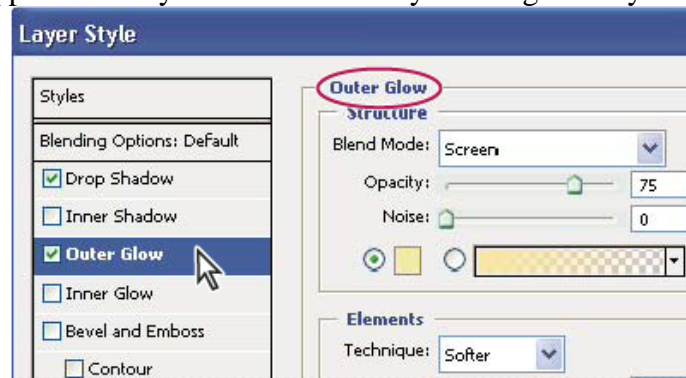
Drag the layer or group to the New Layer button .
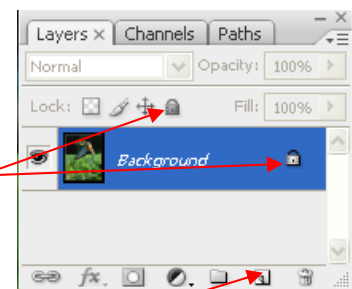
Opacity for a layer
Fill opacity affects pixels painted in a layer or shapes drawn on a layer without affecting the opacity of any layer effects that have been applied to the layer.

Rani Mohan

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.
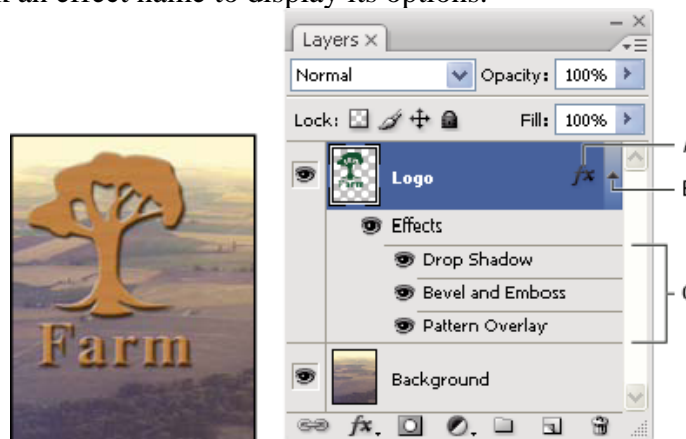
Layers palette showing layer with multiple effects applied

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.

Free Transform command

The **Free Transform command** lets you apply transformations (rotate, scale, skew, distort, and perspective) in one continuous operation. Instead of choosing different commands, you simply hold down a key on your keyboard to switch between transformation types.

4

★ **Scaling** enlarges or reduces an item relative to its reference point. You can scale horizontally, vertically, or both horizontally and vertically.
★ **Rotating** turns an item around a reference point. By default, this point is at the center of the object; however, you can move it to another location.
★ **Skewing** lets you slant an item vertically and horizontally.
★ **Distorting** lets you stretch an item in all directions.
★ Applying **perspective** lets you apply one-point perspective to an item.

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

Rotate or flip an entire image
The Rotate Canvas commands let you rotate or flip an entire image. The commands do not work on individual layers or parts of layers, paths, or selection borders. If you want to rotate a selection or layer, use the Transform or Free Transform commands.(Ctrl+T)
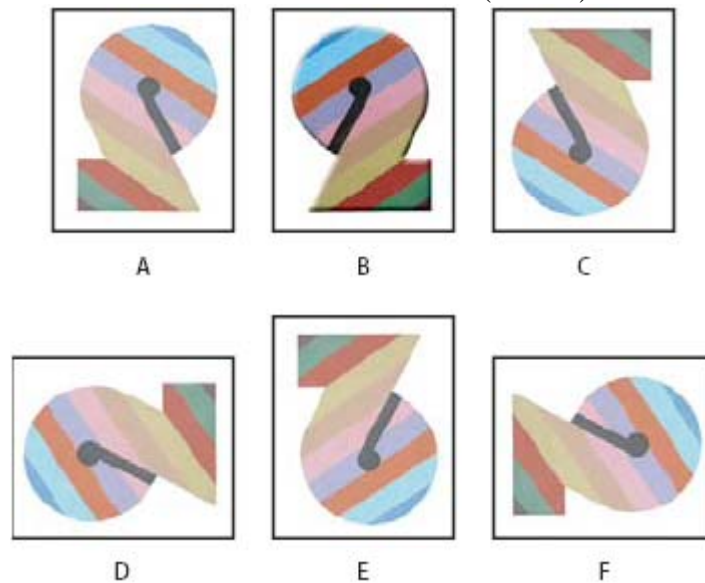
Rotating images A. Flip Horizontal B. Original image C. Flip Vertical D. Rotate 90° CCW E. Rotate 180°
F. Rotate 90° CW
❖ Choose Image > Rotate Canvas, and choose one of the following commands from the submenu:

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**
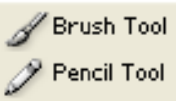
5

Rani Mohan

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

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.
Magic wand tool.	The magic wand tool lets you select a consistently colored area without having to trace its outline.

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

Rani Mohan

Patch tool The Patch tool lets you repair a selected area with pixels from another area or a pattern. Like the healing brush tool, the patch tool matches the texture, lighting, and shading of the sampled pixels to the source pixels. When repairing with pixels from the image, select a small area to produce the best result.	

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.

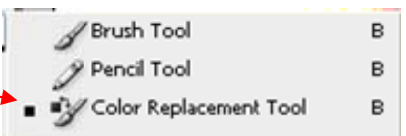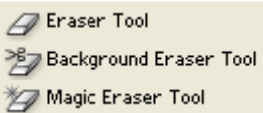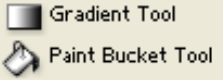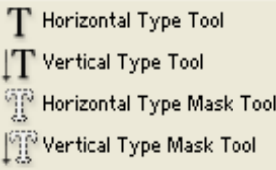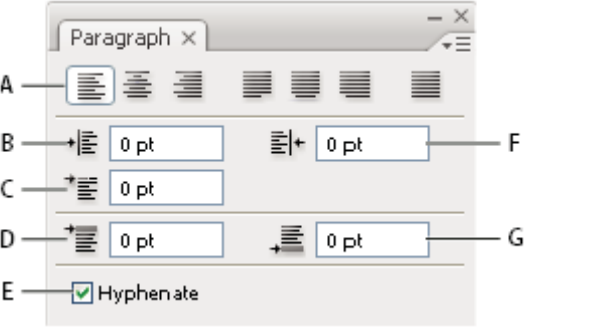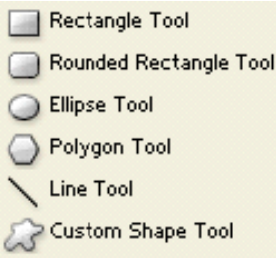|	
Clone Stamp Tool Pattern Stamp Tool	The Clone stamp tool takes a sample of an image, which you can then apply over another image or part of the same image. You can use any brush tip with the Clone Stamp tool, which gives you precise control over the size of the clone area. You can also use opacity and flow settings to control how paint will be applied to the cloned area. Altering an image with the Clone Stamp tool The Pattern stamp tool lets you paint with a pattern. You can select a pattern from the pattern libraries or create your own patterns.
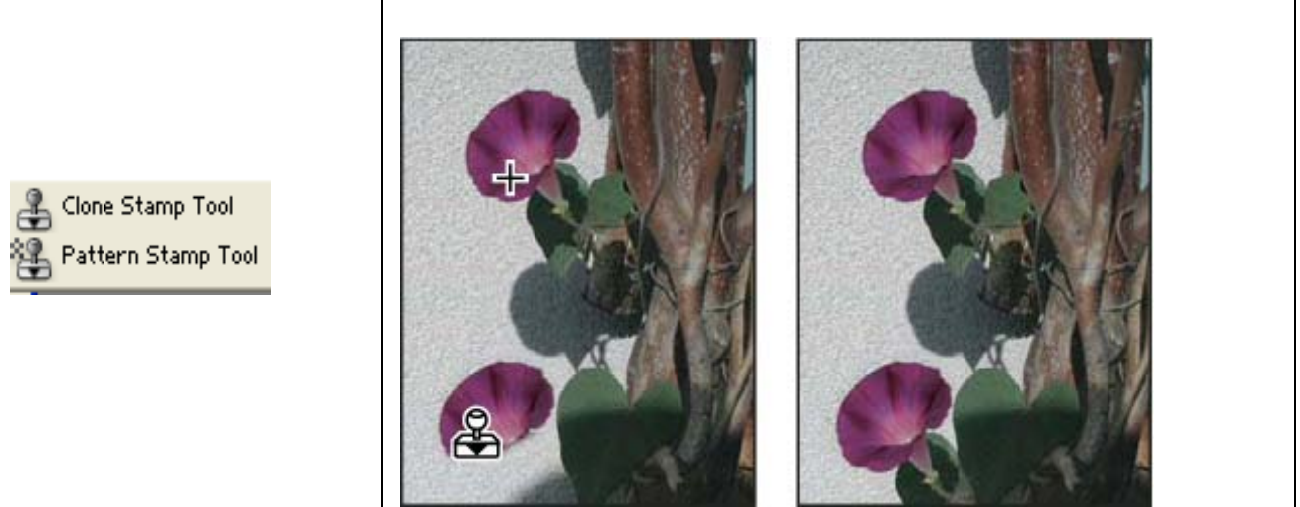
Replace color in image areas

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

Brush Tool	B
Pencil Tool	B
Color Replacement Tool	B

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.

Eraser Tool Background Eraser Tool Magic Eraser Tool	The **Eraser tool** changes pixels in the image as you drag through them. The **Background Eraser tool** lets you erase pixels on a layer to transparency as you drag; this allows you to erase the background while

Rani Mohan

	maintaining the edges of an object in the foreground. The **Magic Eraser tool**, the tool automatically changes all similar pixels. If you're working in the background or in a layer with locked transparency, the pixels change to the background color; otherwise, the pixels are erased to transparency.
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.
T Horizontal Type Tool ⏐T 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 **Custom 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.

Rani Mohan

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.

9

Rani Mohan