



GRAPHICS DESIGNING

04

Adobe Illustrator



After completing this section, students will be able to: -

- define adobe illustrator
- describe uses of adobe illustrator
- define home screen
- understand workspace
- configure the workspace
- understand art boards
- explore default presets in illustrator

Adobe Illustrator

Adobe Illustrator is an application program used on Windows and MacOS which helps to create illustrations, drawings, and artwork. Illustrator allows a user to create everything from a single element to the entire composition. Designers use Illustrator to create logos, patterns, posters, symbols, and icons, etc.

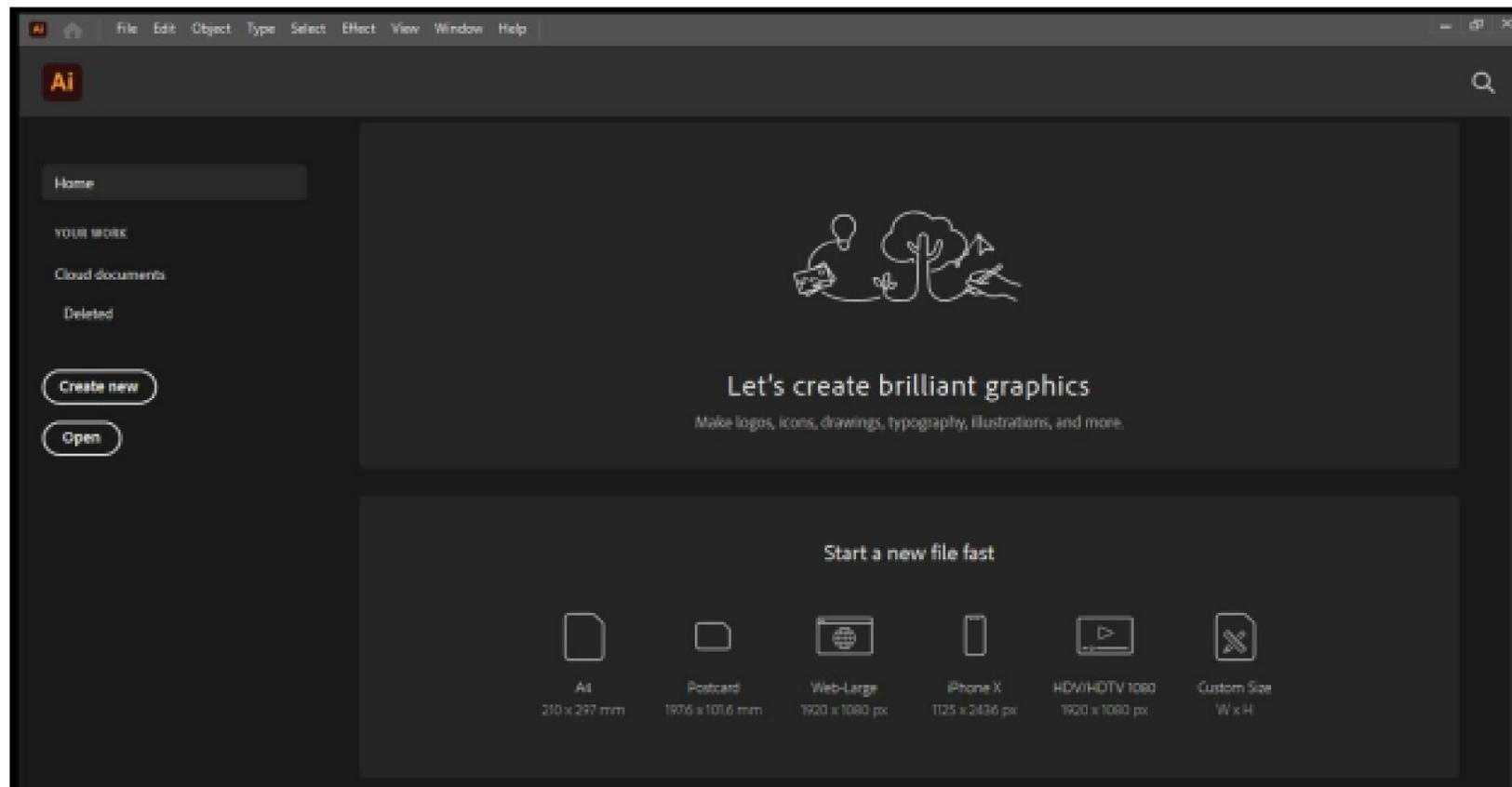
Uses of Illustrator

There are a variety of uses for Adobe Illustrators. Some of these are described below:

- Its use is very diverse in the field of graphics including logos, graphics, diagrams, charts, cartoons, and illustrations.
- This can be used to create a sketch then color or re-color it.
- Illustrator also makes it possible to manipulate the drawings.
 - Illustrator's ability to place text around a curve is especially useful for artists creating logos.
- Illustrator is also used in designing mock-ups that show what the website will look like.

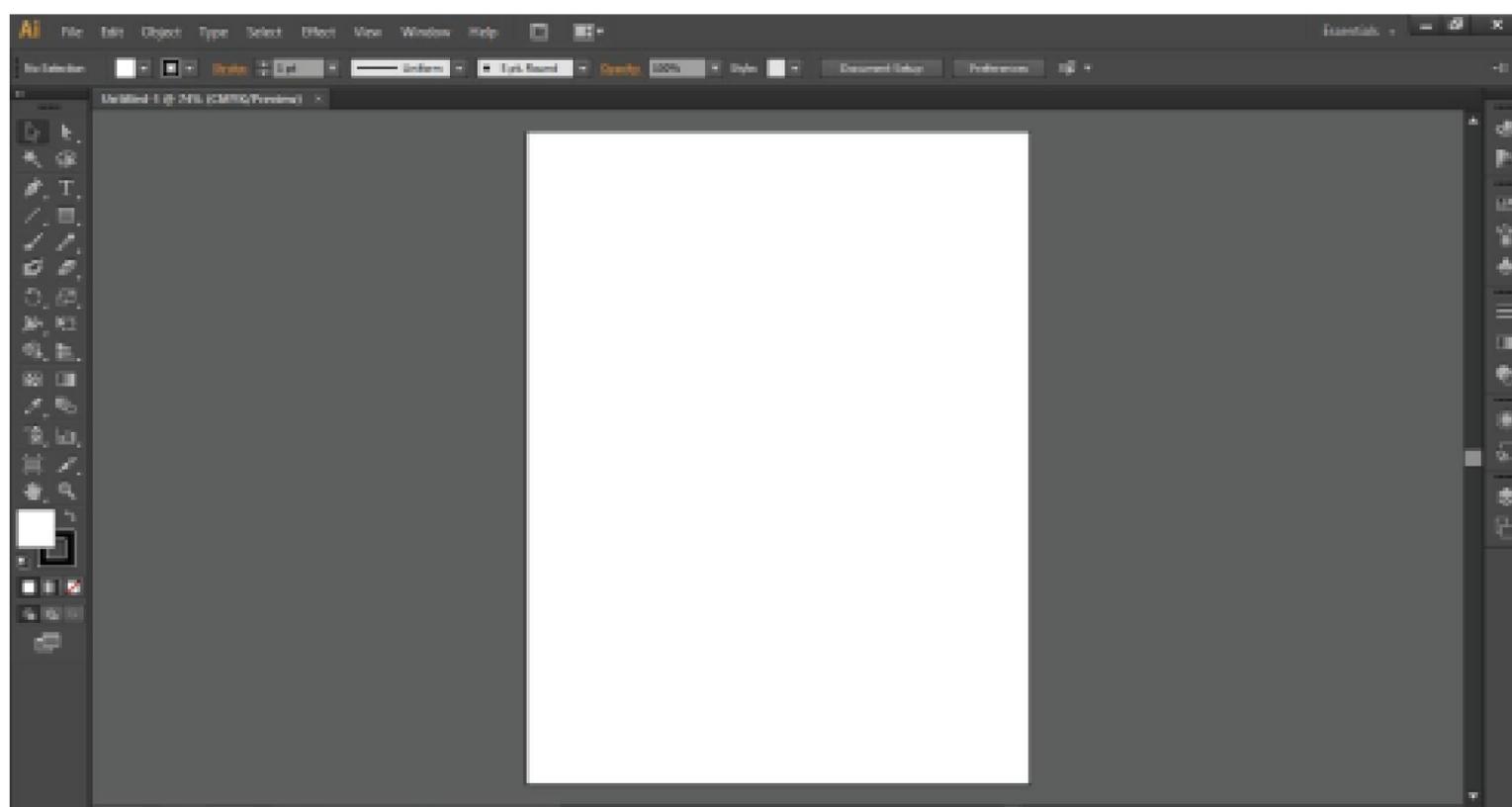
Home Screen Basics

The home screen on Illustrator is something you will instantly see after opening the program as can be seen in (Figure 10.7). Here You will see different templates, you can either opt for one of those or create a new file or open a previous file. Home screen varies from version to version on illustrator.



Workspace

Workspace is the main work screen of Illustrator used to create and edit our designs and artwork for print, using on the web, and mobile devices. We have our Control Bar, Menu Bar, Tool Panel, and Art Board. These are 4 main components a user should have control over, the basic functionalities of these components are explained as:



1. Menu Bar:

It is always on the top of the window. As can be seen in , It provides a user with multiple options to interact. You can click on Edit, Object, Type, Select, Effect, View, Window, or Help and a dropdown menu will appear giving you options all relating to the menu name. For example, all the options in File have functions to do with your documents, such as opening, creating, saving, printing, and so forth.



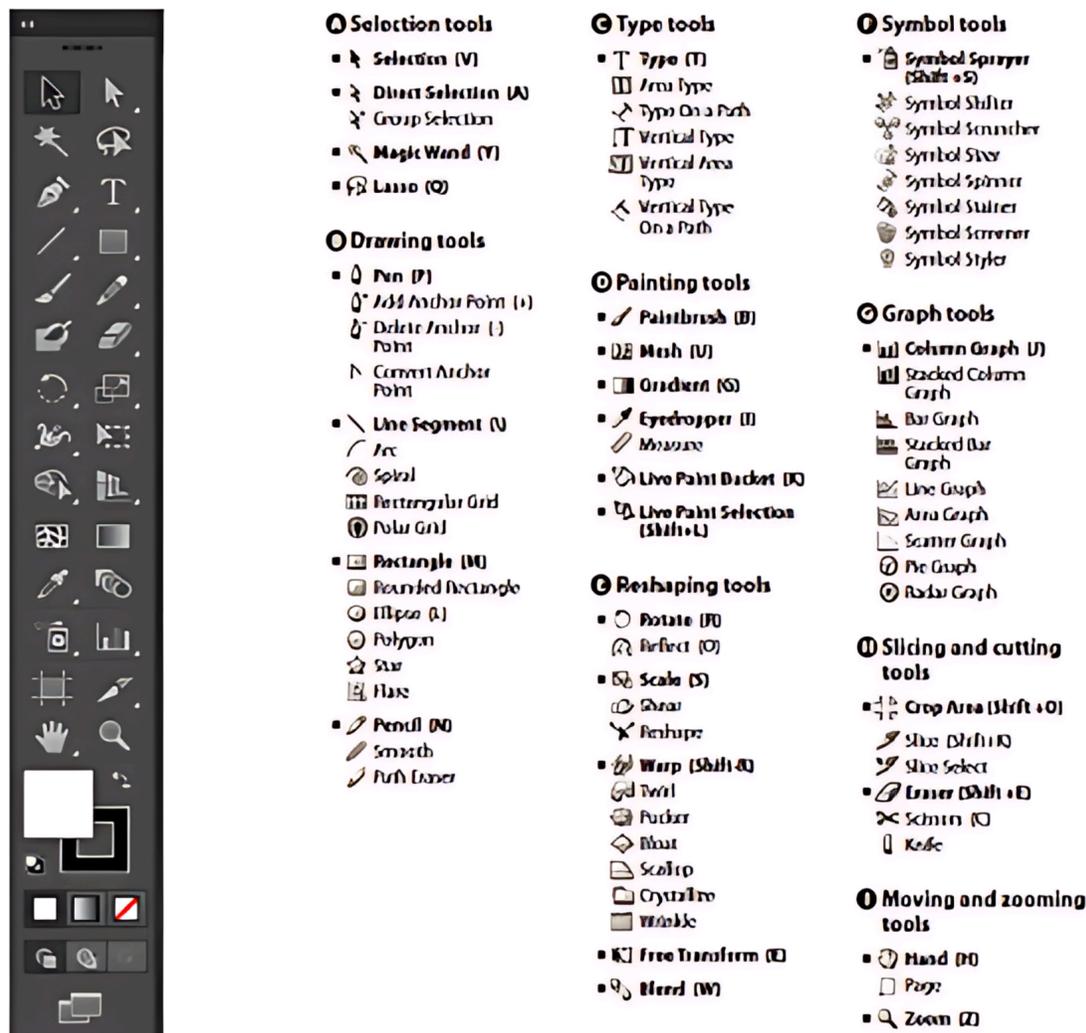
2. Control Bar:

The control panel (as can be seen in is docked at the top of the work area. It is the quick access options related to the object that we want to access. Variety of options displayed in the control panel depending on the type of tools or objects we are using. For example, the control panel displays a text formatting option when any text object is selected. The text formatting option helps in changing color, and assist in the placement and selecting the dimension of an object.



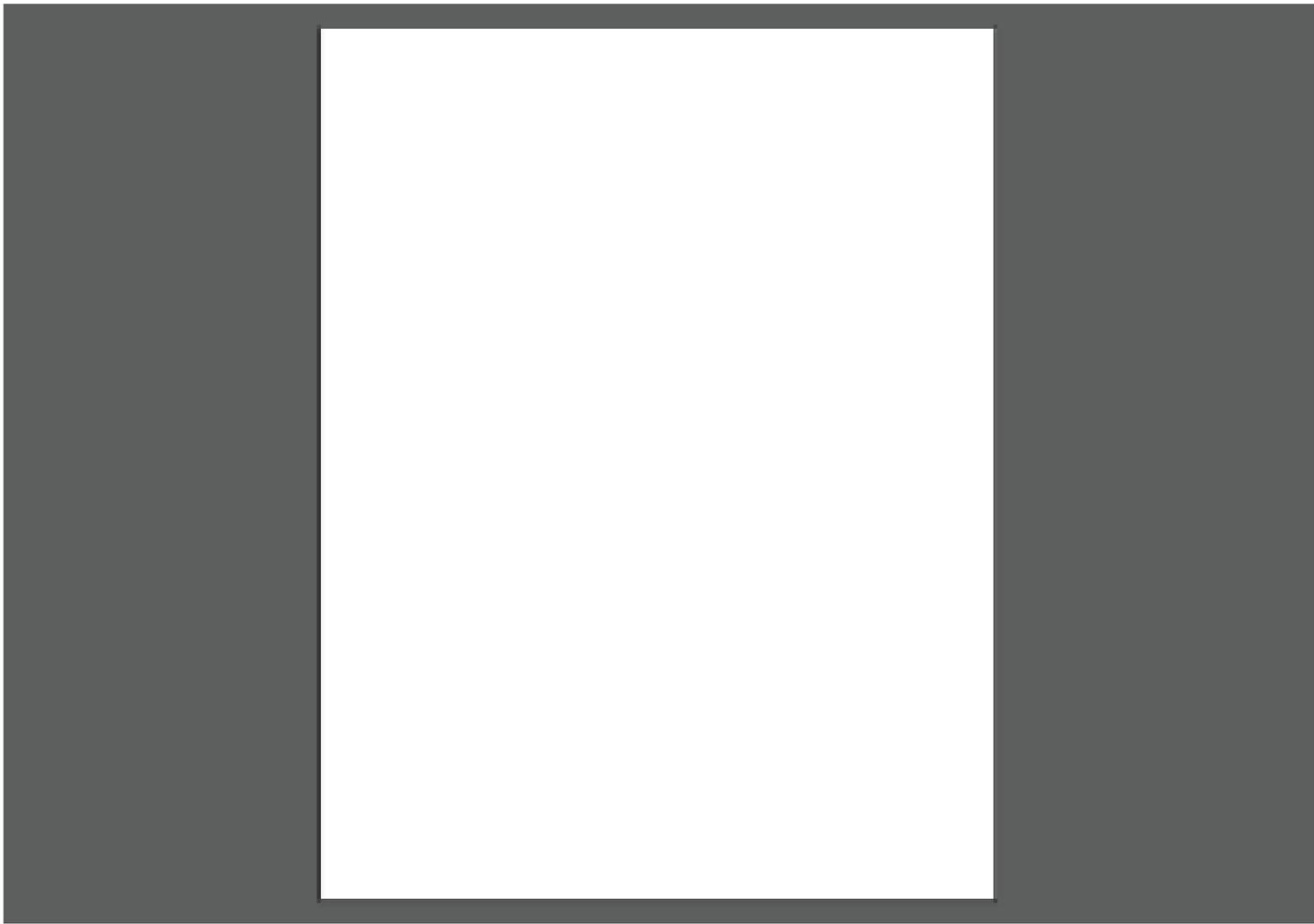
3. Tool Panel:

The tools panel is on the left side of the Illustrator window by default. We can use the tools mentioned in to select, create, and manipulate objects in Adobe Illustrator. Some of the tools are used to type, select, paint, draw, sample, edit, and move images.



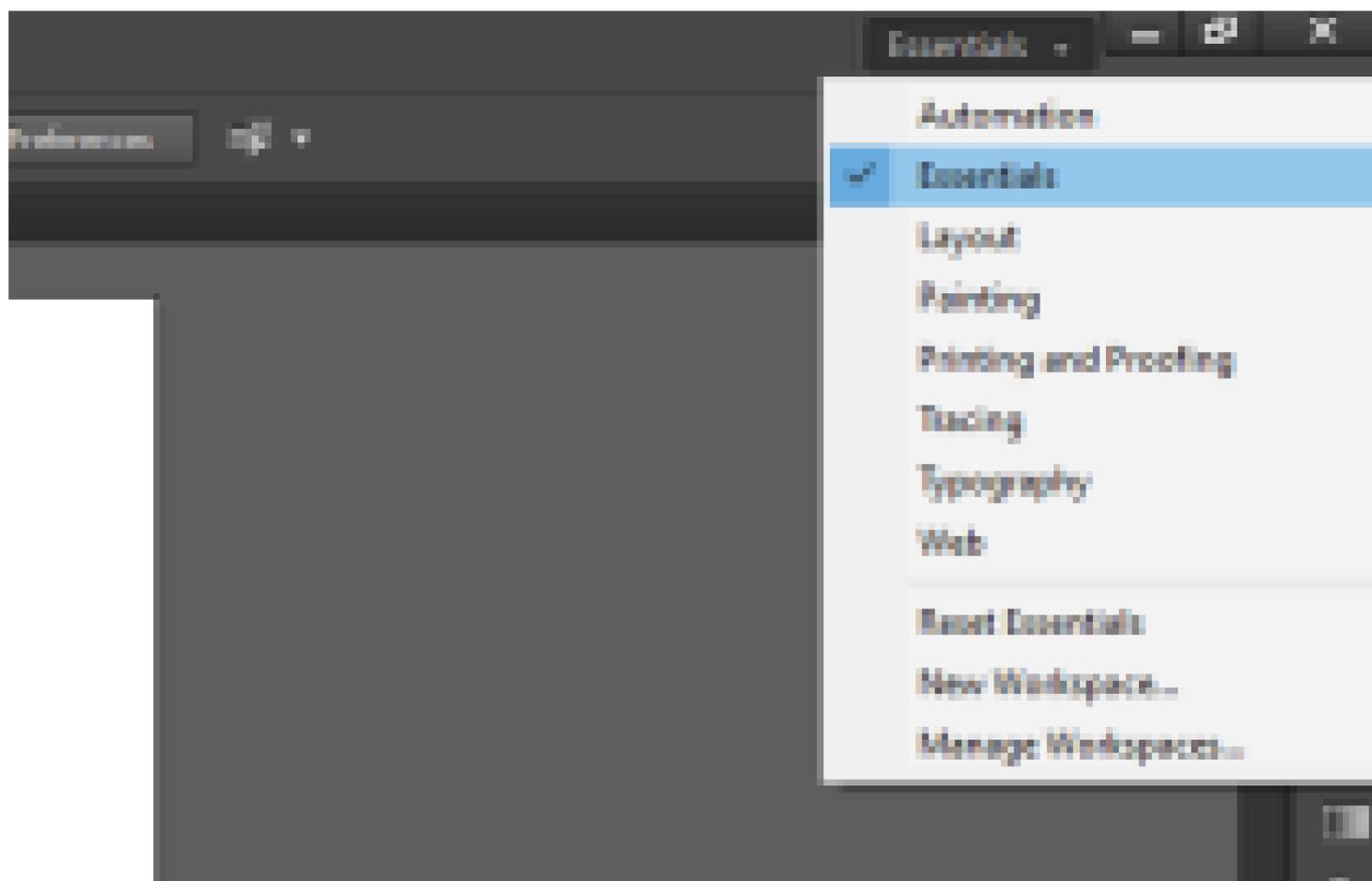
4. Art Board:

The white color pad in the workspace is the main work area where the user will work/design. Everything on the white pad will be considered as the main content. The area outside the artboard is called the pasteboard. You can draw (or use any other tool) on it, however, any object that is on the pasteboard will not print. So, it's handy to use for art/ text/ objects you are working on but aren't final, or that are just pieces that you haven't found a use for yet.

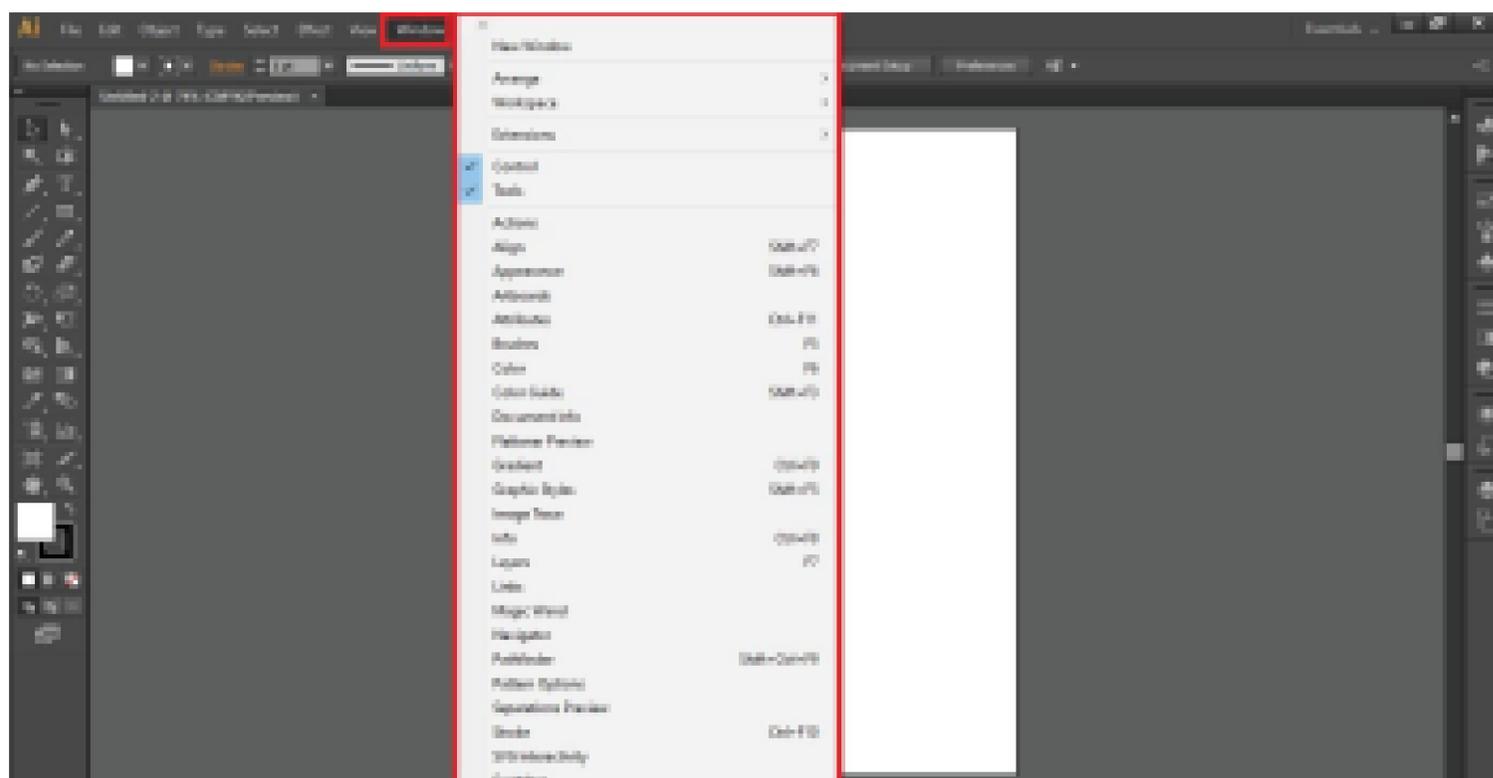


Configuring the Workspace

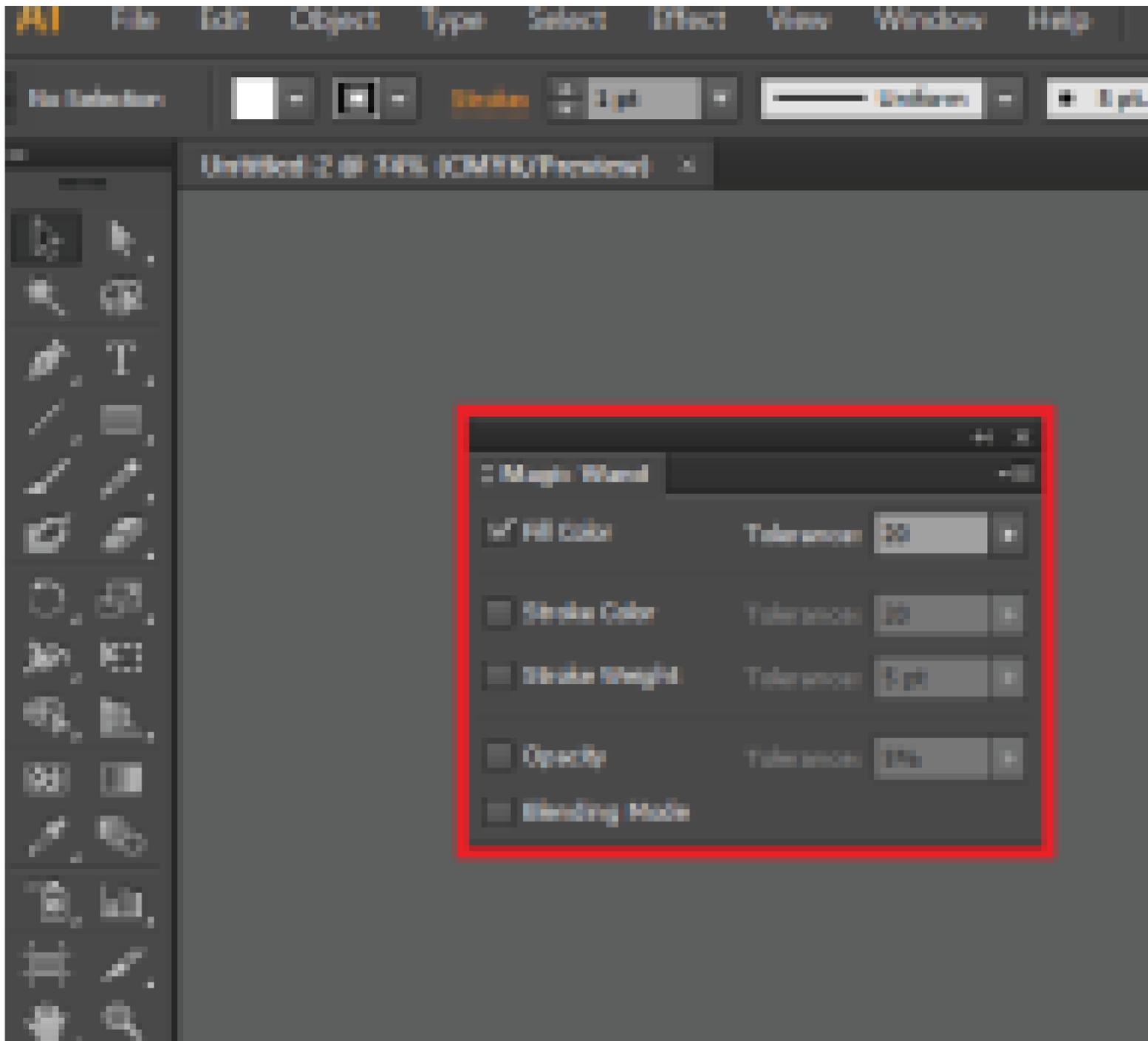
When starting work on Illustrator the first thing to do is to configure the workspace according to the project you are working on. If you haven't already configured your workspace, you'll see the default set of workspaces but you can configure it and even save / access multiple presets of workspace anytime



working depending on your project. As can be seen in we have many available workspaces namely Essential, Painting, Tracing, Web etc. To access them you'll have an option on the Top Right of the Window Screen. Now if you want to make your workspace, you can click on the "Windows" button in Menu Bar you will be provided with that feature of Illustrator in a small moveable windowou haven't already configured your workspace, you'll see the default set of workspaces but you can con-figure it and even save / access multiple presets of workspace anytim



For example, if we click on “Magic Wand” we will get the full tool in a moveable window as can be seen in 4.11

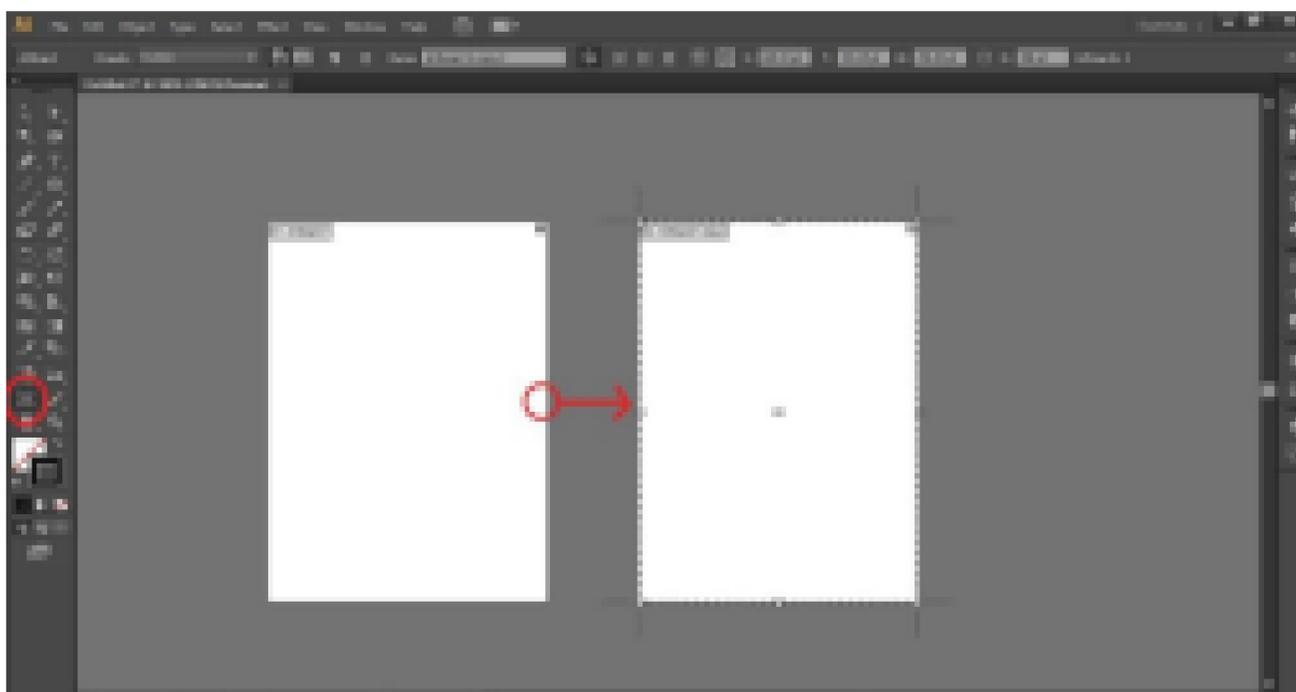
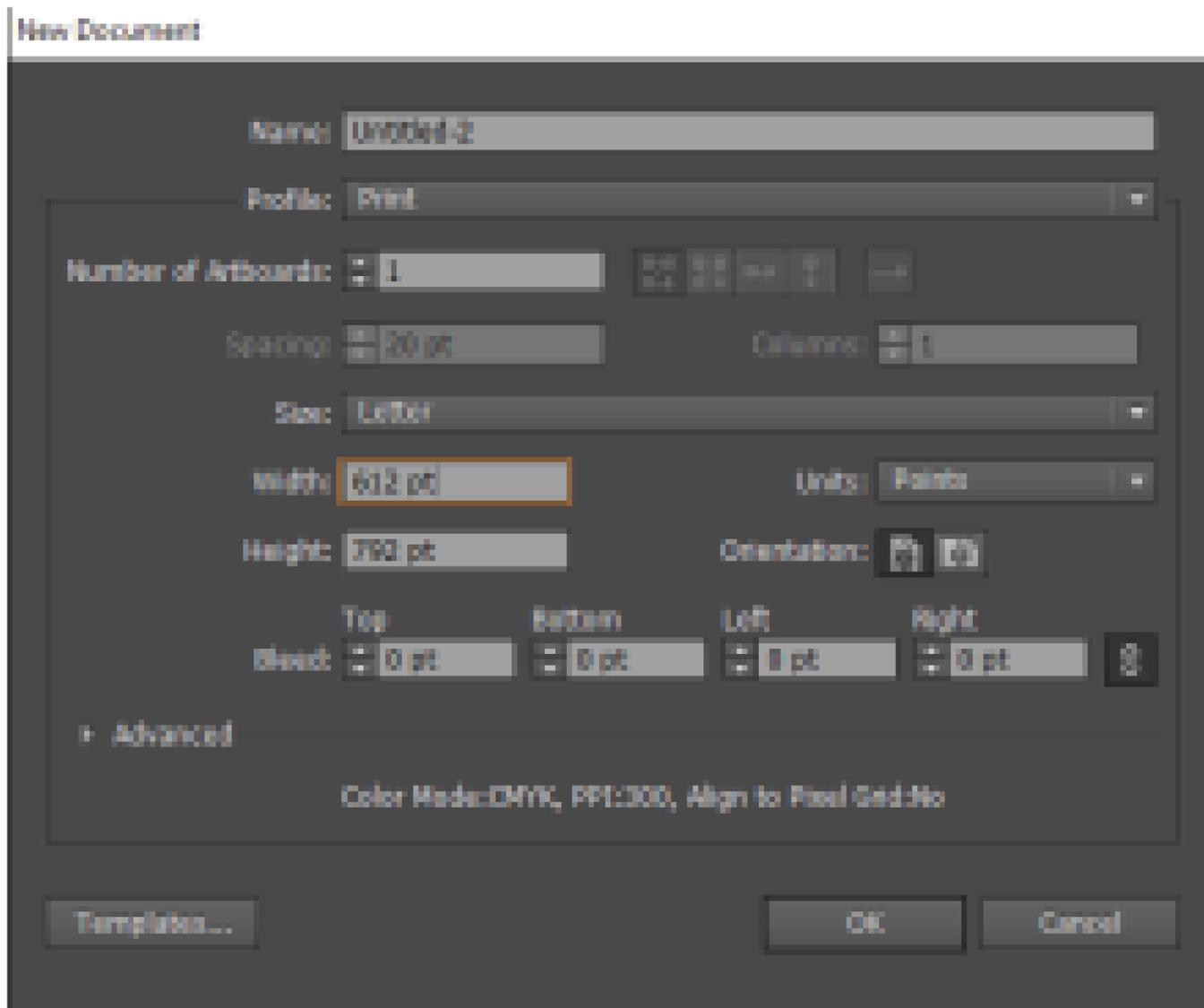


4.5 Understanding the ArtBoard

- Just like the artboard in Adobe InDesign or Microsoft Word, the artboard of Illustrator also represents the printable area.
- Every stuff in the white artboard is considered as the main content, the outer grey area is called pasteboard and won't be printed.
- Artboards can be different sizes and orientations, be arranged how you like, and overlap.
- The Artboards panel (Window > Artboards, reference present in (Figure 4.7) is another way to navigate artboards.
- The Artboard navigation menu in the lower-left corner of the Document window shows the same listing of artboards as in the Artboards panel.

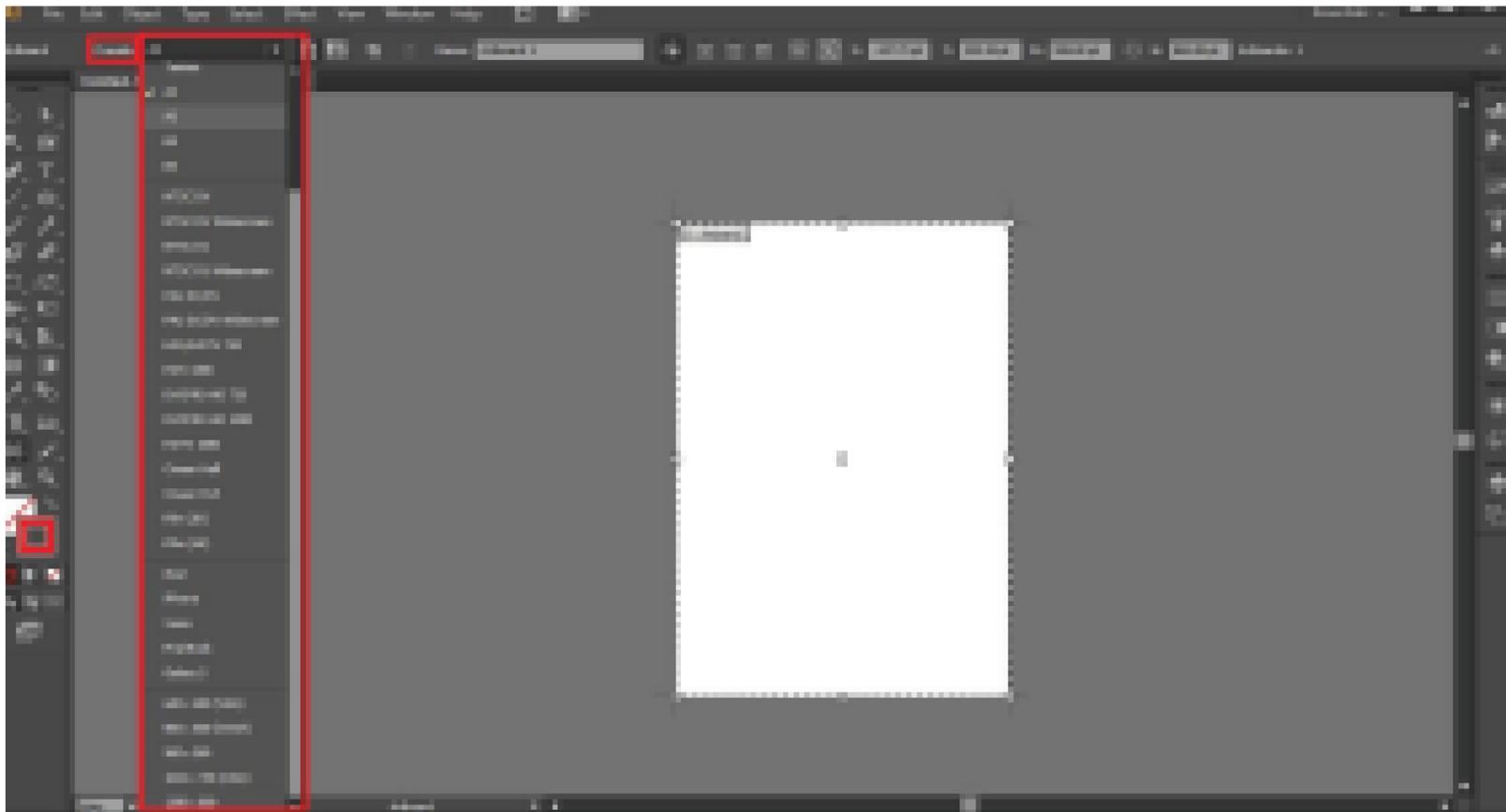
When we start a new project from Home (Figure 2.1) we get an option to set dimensions /size of the artboard as width and height as can be seen in Figure 4.12

Select the Artboard tool in the Toolbar (Shortcut key is Shift + O) as can be seen in (Figure 4.13), and drag on the canvas to create an artboard. You can resize it by dragging a corner handle with the Artboard tool. To duplicate an existing artboard, select an artboard with the Artboard tool. Then press Option (MacOS) or Alt (Windows) and drag an exact copy of the artboard and its contents. You can do this to create color or design variations side-by-side.



4.6 Exploring different Presets

This is a straight forward process you'll just have to open artboard tool (shift + O for windows) you'll get an option of presets on Control Bar. As shown in (Figure 4.14). You'll get many sizes for Art Board (A4, Legal, A3, B5, B4) by clicking them the size of your Artboard will change instantly.



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4.6 Exploring different Presets

(Section-II)

In Section-II of this chapter:

After completing this section, students will be able to: -

- **enlist basic tools of adobe illustrator**
- **learn selection tool vs. direct selection tool**
- **understand shapes, strokes and fill**
- **define pen tool**
- **understand pathfinder tool**
- **understand shape builder tool**
- **use eyedropper tool**
- **understand align panel**
- **understand pencil and paint brush tool**

4.7 Basic Tools in Illustrator

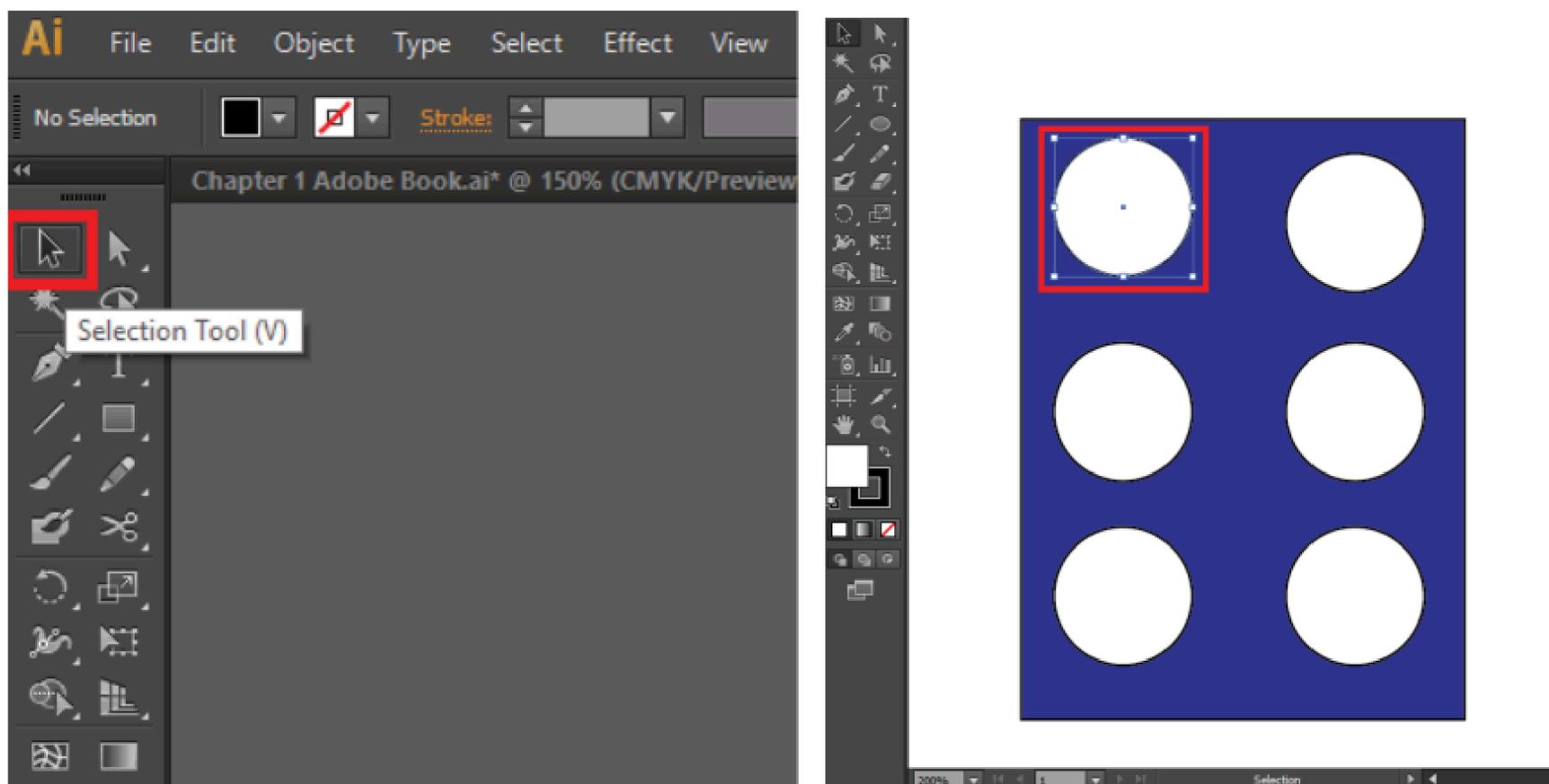
Illustrator has a wide variety of drawing tools found in the Toolbar, each allowing you to create in different ways. Some basic tools of them all are discussed below:

Selection tool: The icon for the Selection tool, which is a black square containing a white mouse cursor arrow pointing towards the top-left corner.

One of the most fundamental tools in Illustrator is Selection tool. It is used for selecting a particular part of the object. The shortcut key for Selection tool is "V" as described in Figure 4.15

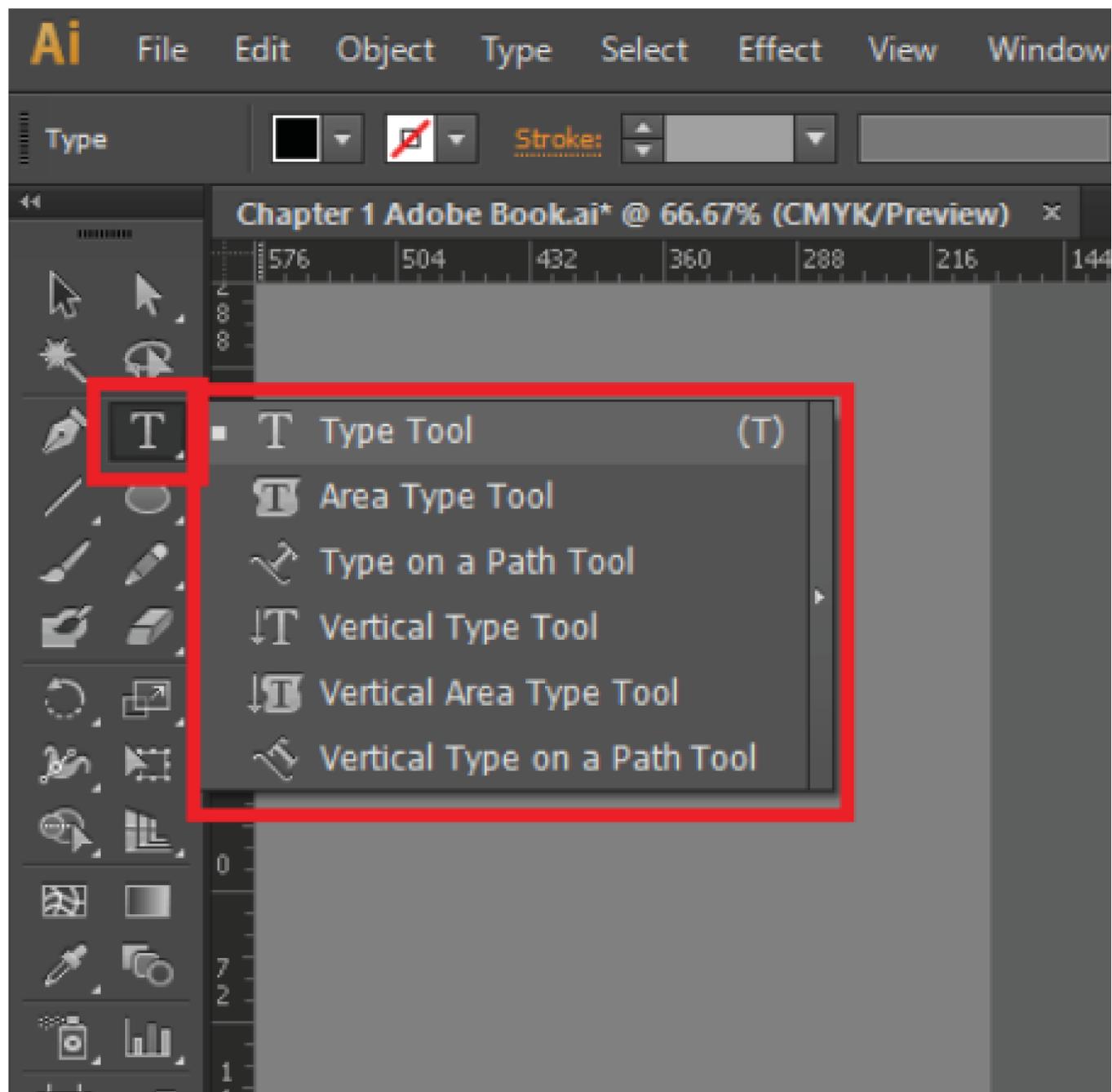
For Example:

We have an example of Domino, we want to move the circle, First Click on the circle and it'll be selected you'll see a blue dotted square around the circle, you can simply drag it or resize/rotate it using the four points around the four points of the square. (Figure 4.15-4.16)

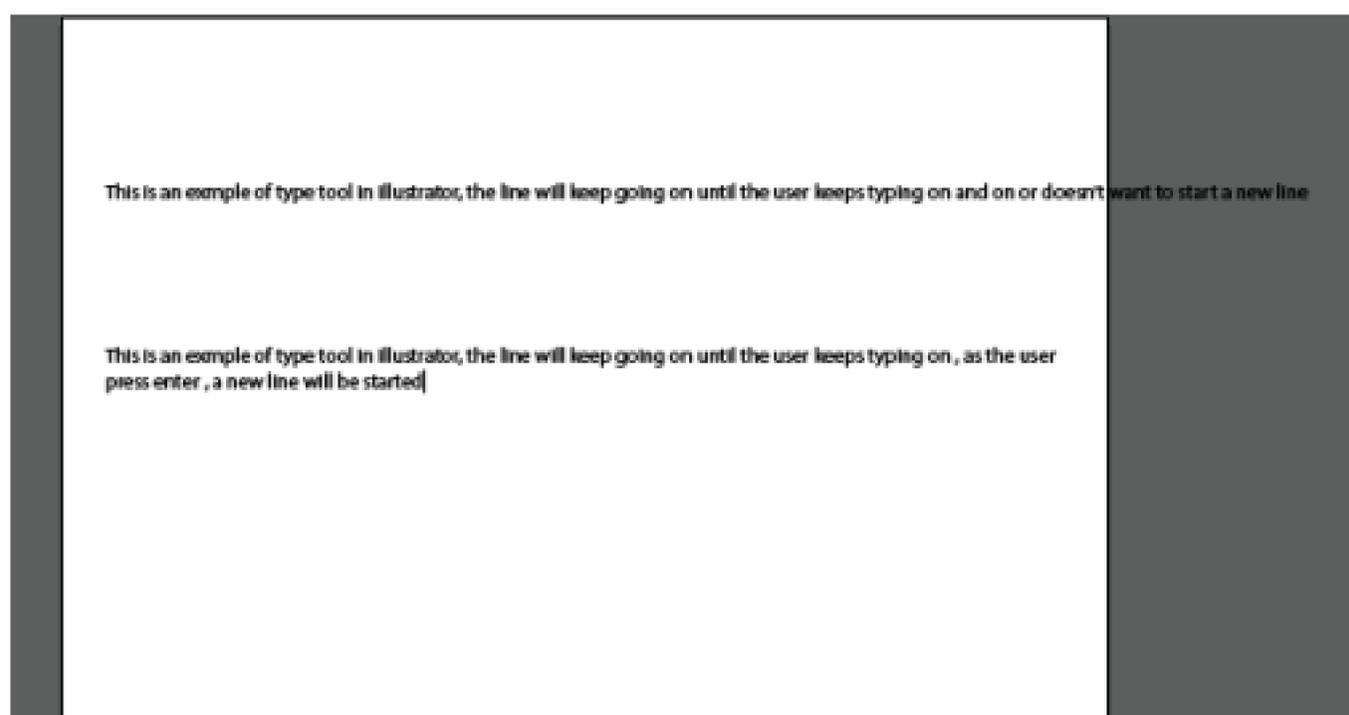


Type tool:

Type tool in Illustrator is used to type text, you can do different types of cool stuff with type, from the simplest task of creating a single line of text to more complicated creative uses of text, such as placing text along with a path and wrapping text around objects. Click and hold the type tool to see the hidden options, as shown in Figure 4.17



Creating a line of Text:



Creating Text Area:

A text area is a region that you define. Text, when inserted in this region, is constrained within the shape. To create a text area, click and drag with the Type tool. As you create and finish typing in a text area, you may want to quickly click and drag to create a new text area elsewhere on your artboard. Shown in Figure 4.19

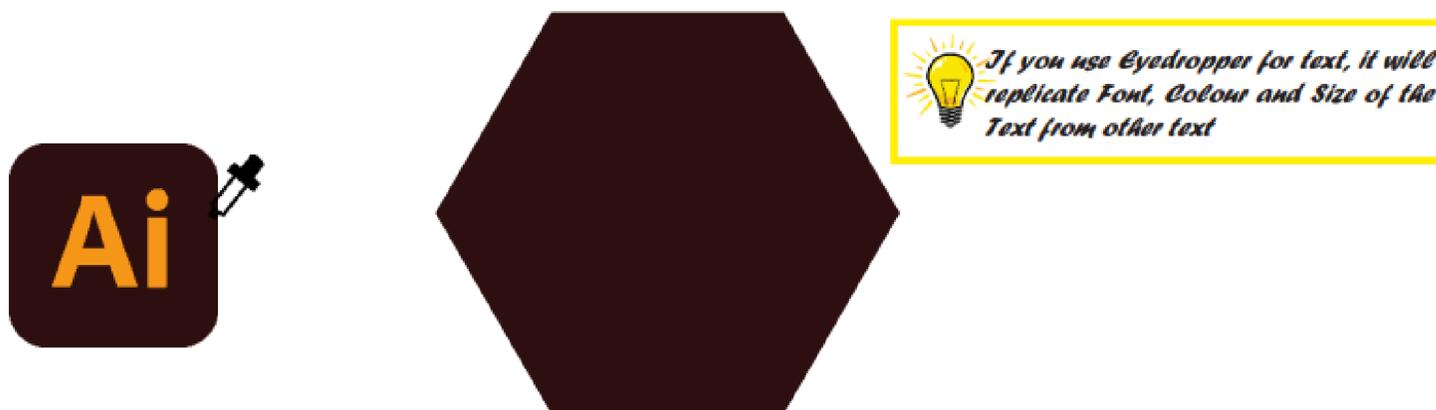
**AAAAAAAAAAAA AAAAAAAAAAAAAA AAAAAAAAAAAAAA
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Eyedropper tool:

Eyedropper tool in Illustrator is one of the most helpful and significant tools. It helps the user to pick any color from the images or objects that are already present or created within the program. The eyedropper tool will help the user to fill the images with the same referred color picked with the help of the eyedropper tool. Eyedropper tool is mostly present in every graphic design program and contains a lot of usage and benefit to the users. Sometimes the users don't remember the exact code of the color they want to fill. So, they use this eyedropper tool to pick and fill the image with the exact color they have chosen.

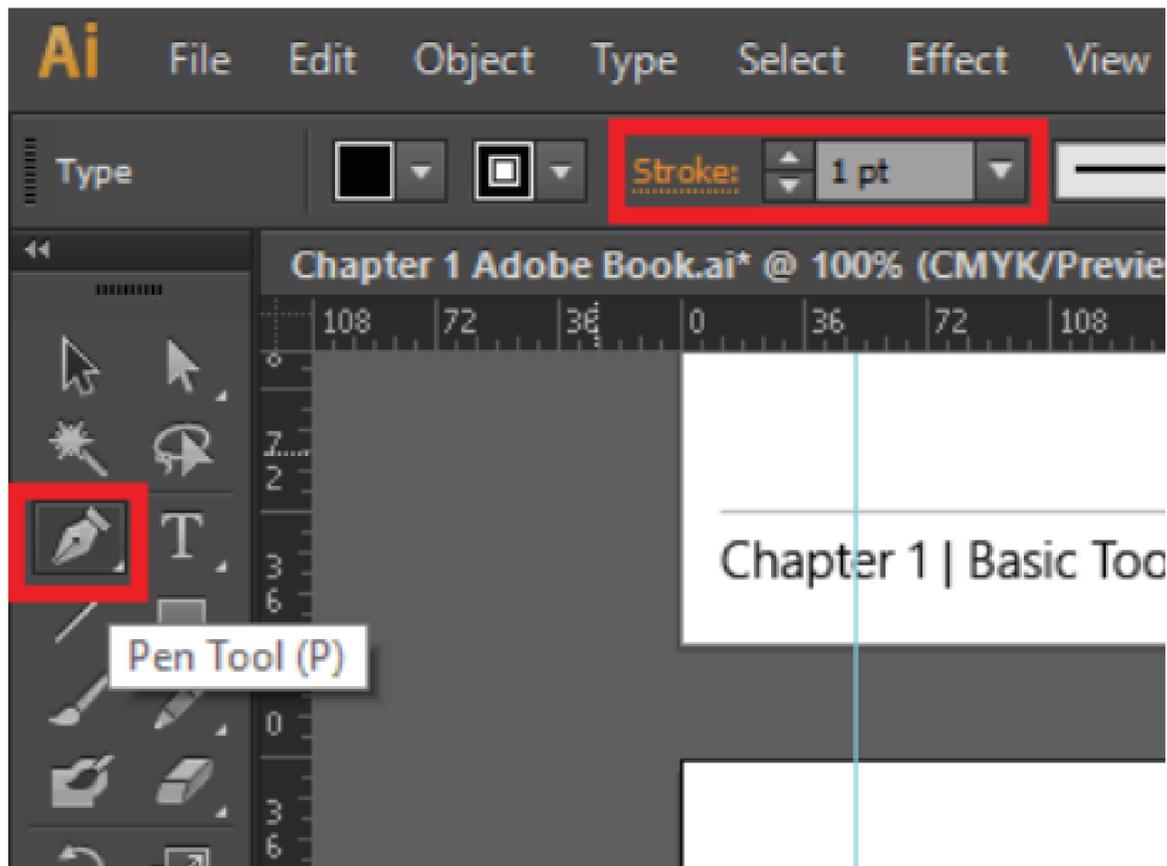
For example:

We have a random shape and we want to adapt colors from an image, simply select the first shape and click on the color of the image, the color will be automatically adapted as shown in Figure 4.21



Pen Tool:

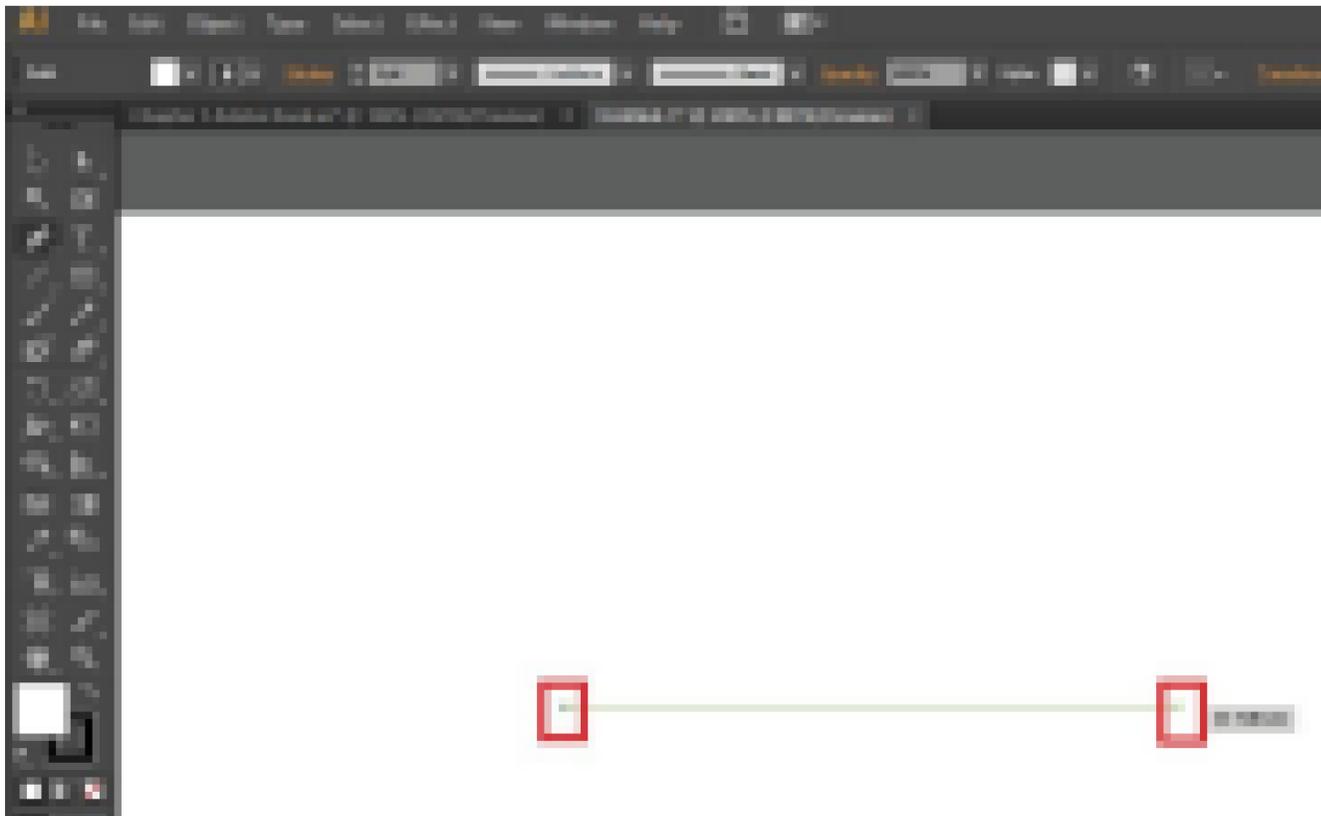
The Pen tool, found in the Toolbar, is one of the most powerful drawing tools in Illustrator. With it, you can create and edit anchor points and paths. Set stroke and fill before drawing To start with the Pen tool, select the Pen tool in the Toolbar and, in the 'properties' panel, set the stroke weight to 1 pt, the color to black, and the fill to none. Figure 4.23.



Create Straight Line:

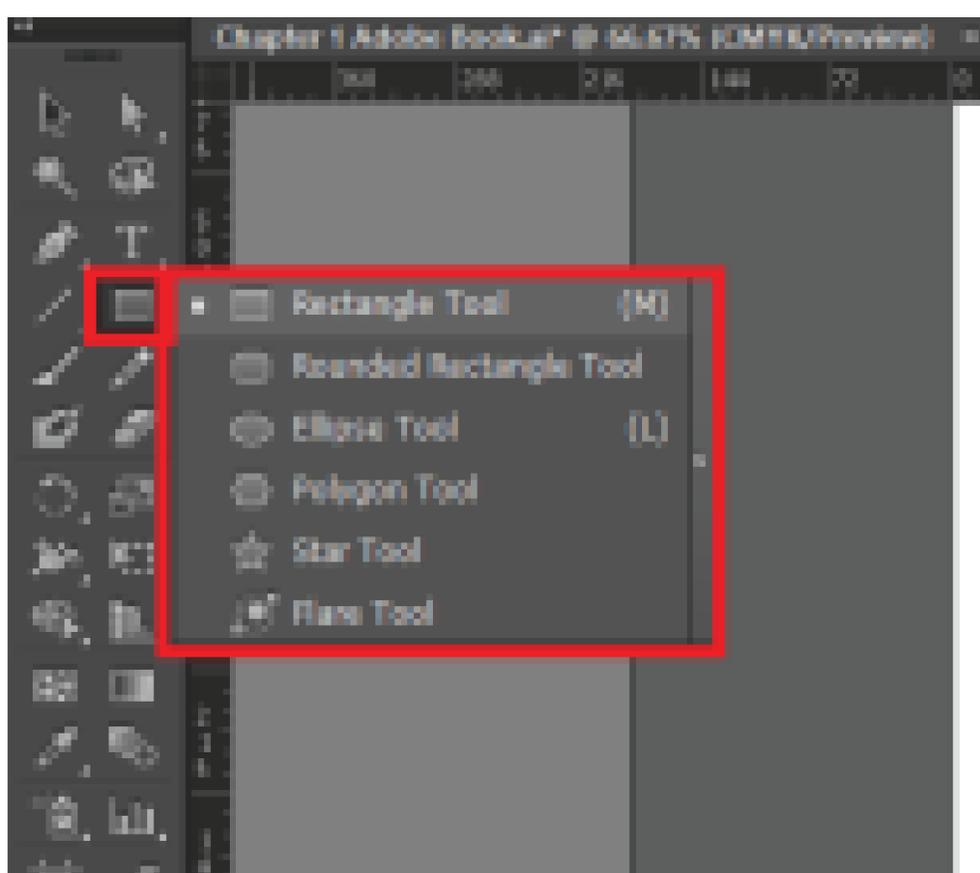
To create straight lines with the Pen tool, click and release to create an anchor point. Move the pointer, and you'll see a preview of the path you are creating. Click and release to create another anchor point. You can continue clicking and releasing in different areas to create more anchor points for the path.

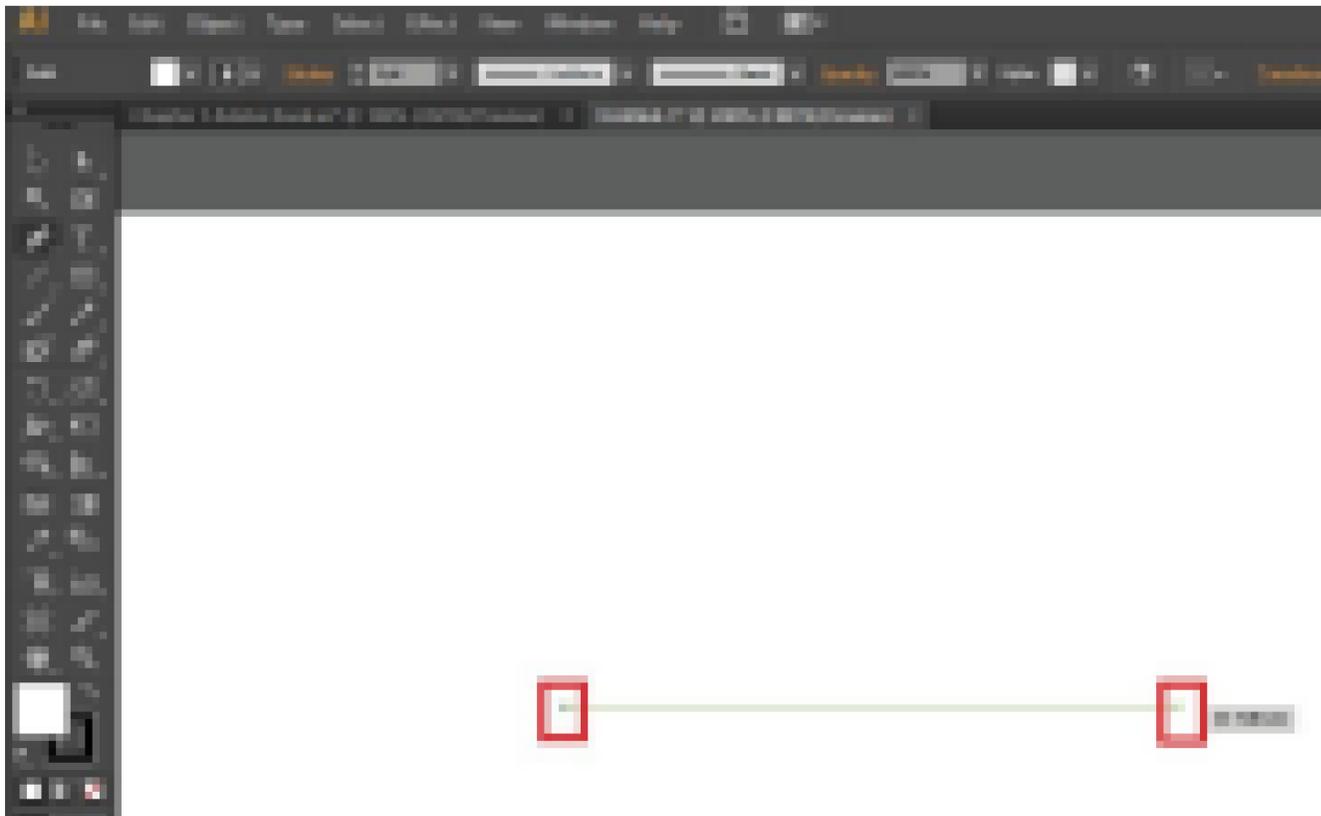
To close a path, move the pointer over the original anchor point and, when a circle shows next to the pointer, press the Shift key and click the end point. To stop drawing a path without closing it, press the Escape key as can be seen in figure 4.25



Shape Tools:

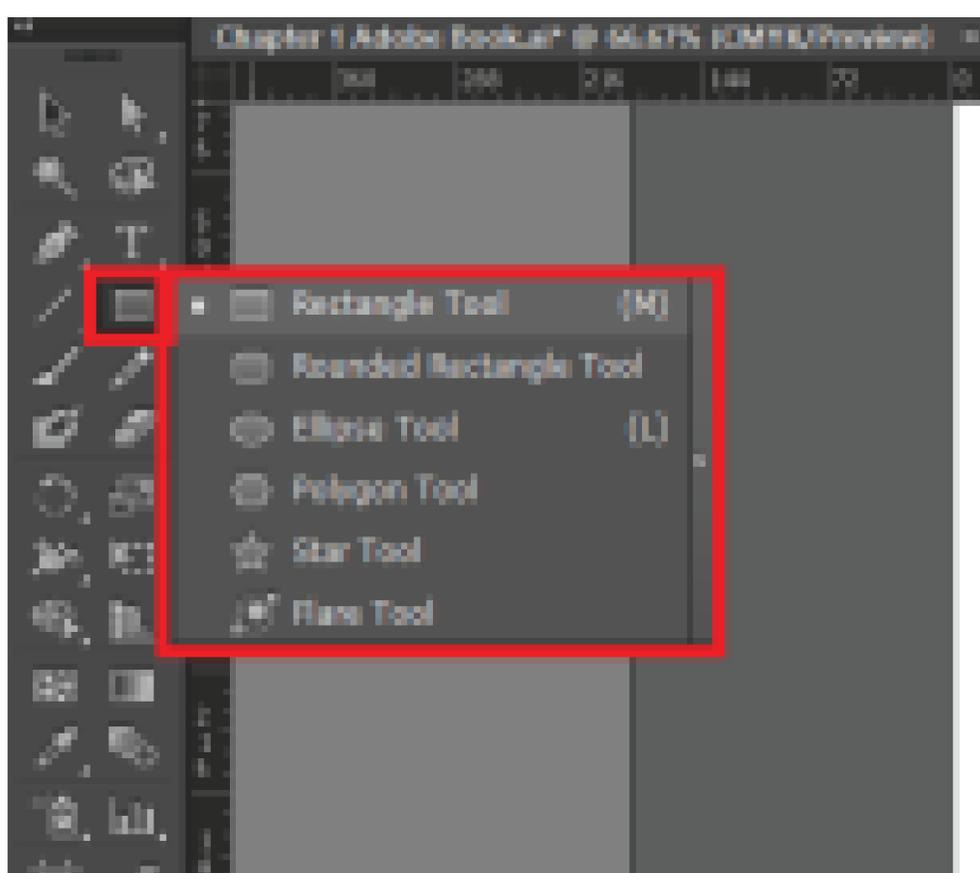
There are five different types of shapes available in Adobe Illustrator which are located on the toolbar section, to select a shape long press the shape tool and you will get some options to choose from as shown in figure 4.26





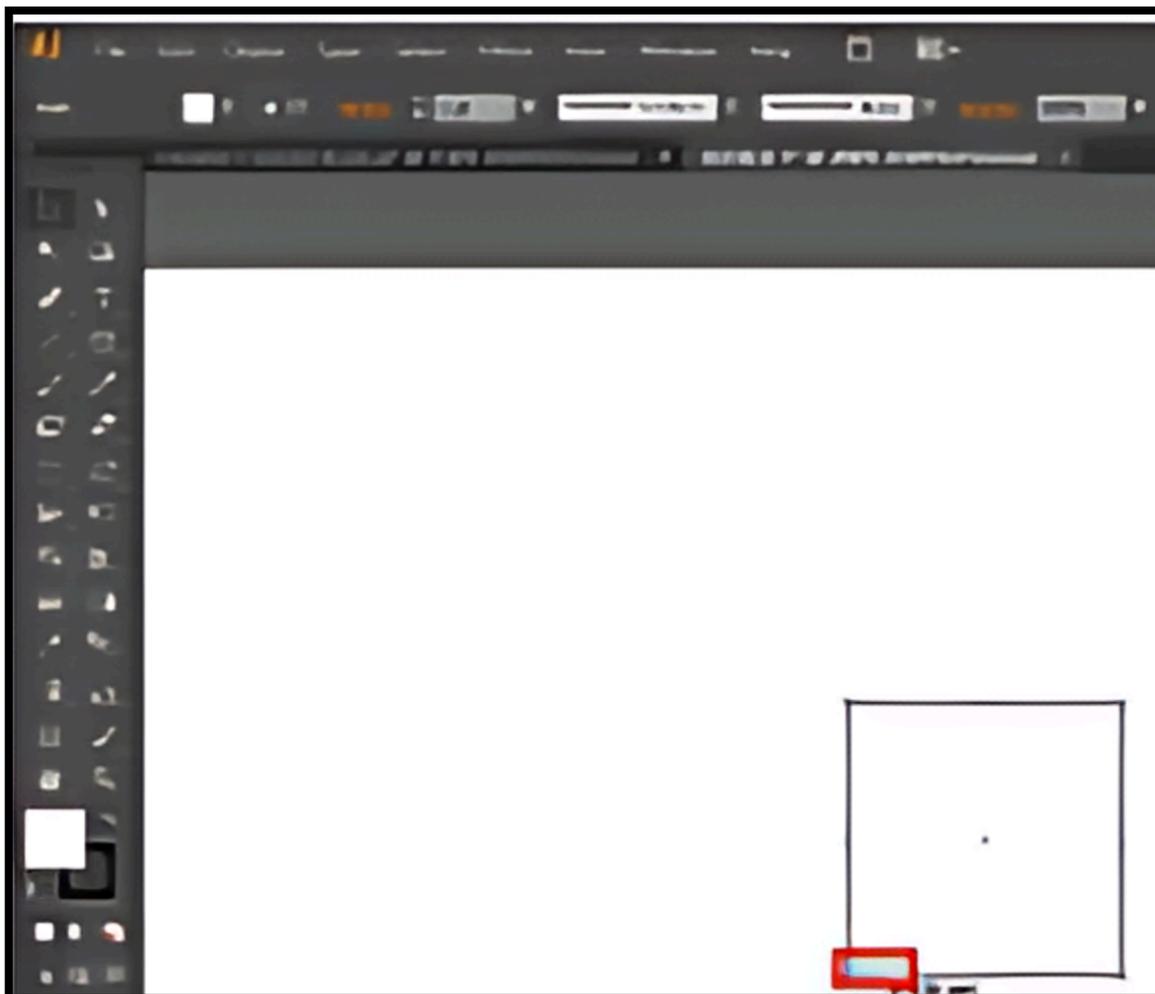
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Tips while drawing a shape:

While drawing a shape the user must press the "Shift" key and the shape will be drawn equally from all directions starting from the initial point as shown in figure 4.27



One more thing to keep in mind is while resizing any shape, Press Alt + Shift and the shape will change size equally from all anchor points otherwise it will resize with random dimensions.

Hand Tool:

Hand tool is a key feature in Illustrator, with the help of hand tool a user can drag the work area and move around freely, user can also Press Space Bar and move by dragging the screen, Shortcut key for hand tool is H.

Zoom Tool:

Just like Hand Tool, Zoom Tool is also a key feature of Illustrator, user can zoom in or out by simply clicking on the specified area, Shortcut key for zoom tool is Z. Another approach for zoom tool is by pressing 'Ctrl +' or 'Ctrl -' key to zoom in or zoom out.

Color Tool:

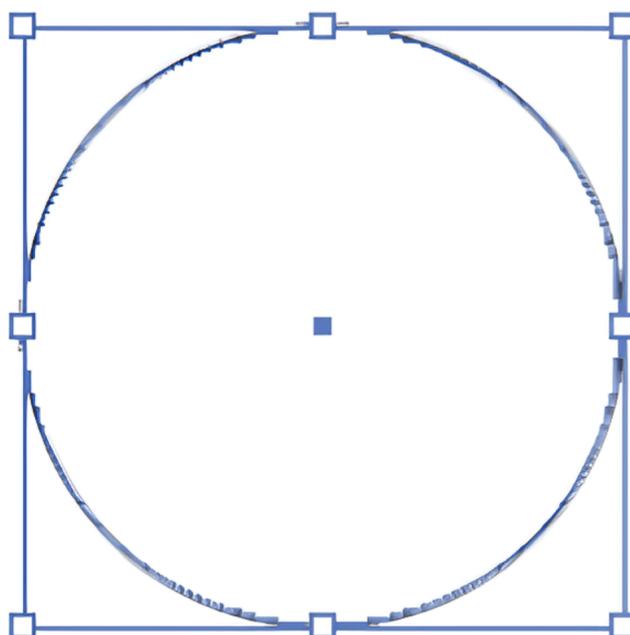
One of the most essential tools for graphics designing is Color Tool, there are two types of colors in Adobe Illustrator namely: Fill and Stroke. Both of them are explained below:

Fill:

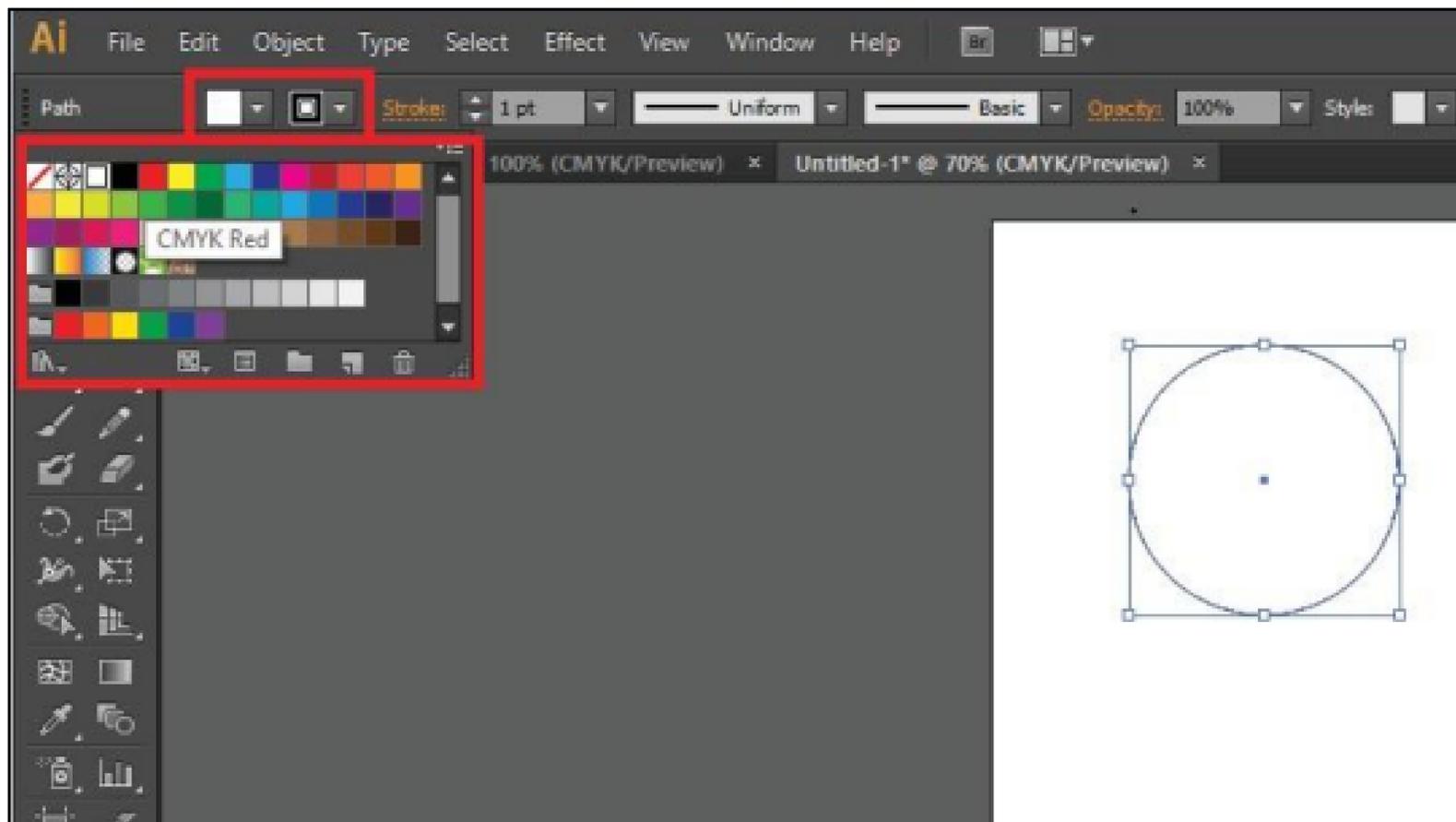
This type of color is the one which fills in the object, you can apply fill colour by following steps:

- Select the object using the Selection tool) or the Direct Selection tool)
- Click the Fill box in the 'Tools' panel, the 'Properties' panel, or the 'Color' panel to indicate that you want to apply a fill rather than a stroke and click on the specific colour.

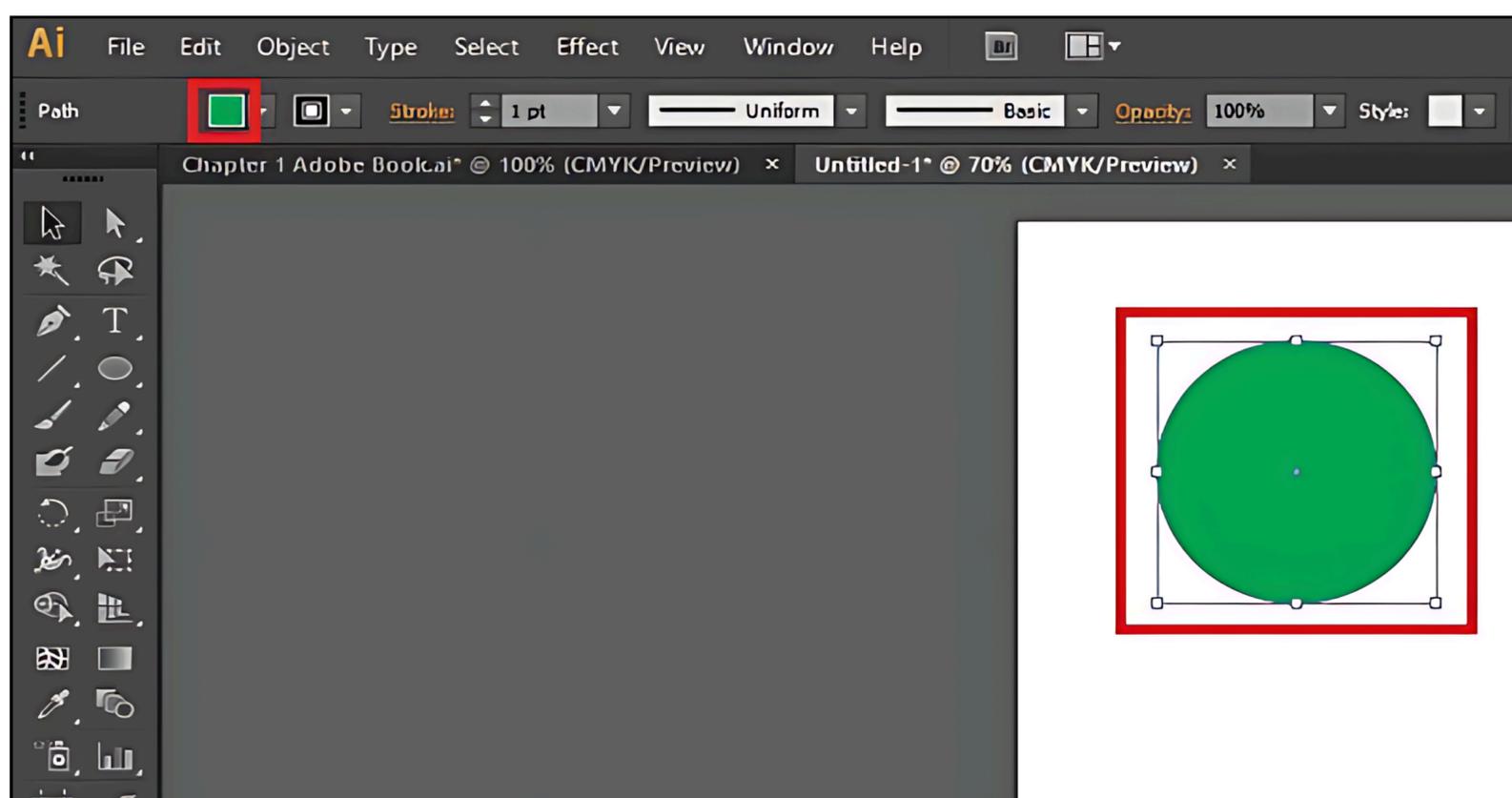
For example, suppose you have an ellipse as shown in figure 4.28



Select the shape and click on the colour tool as shown in figure 4.29

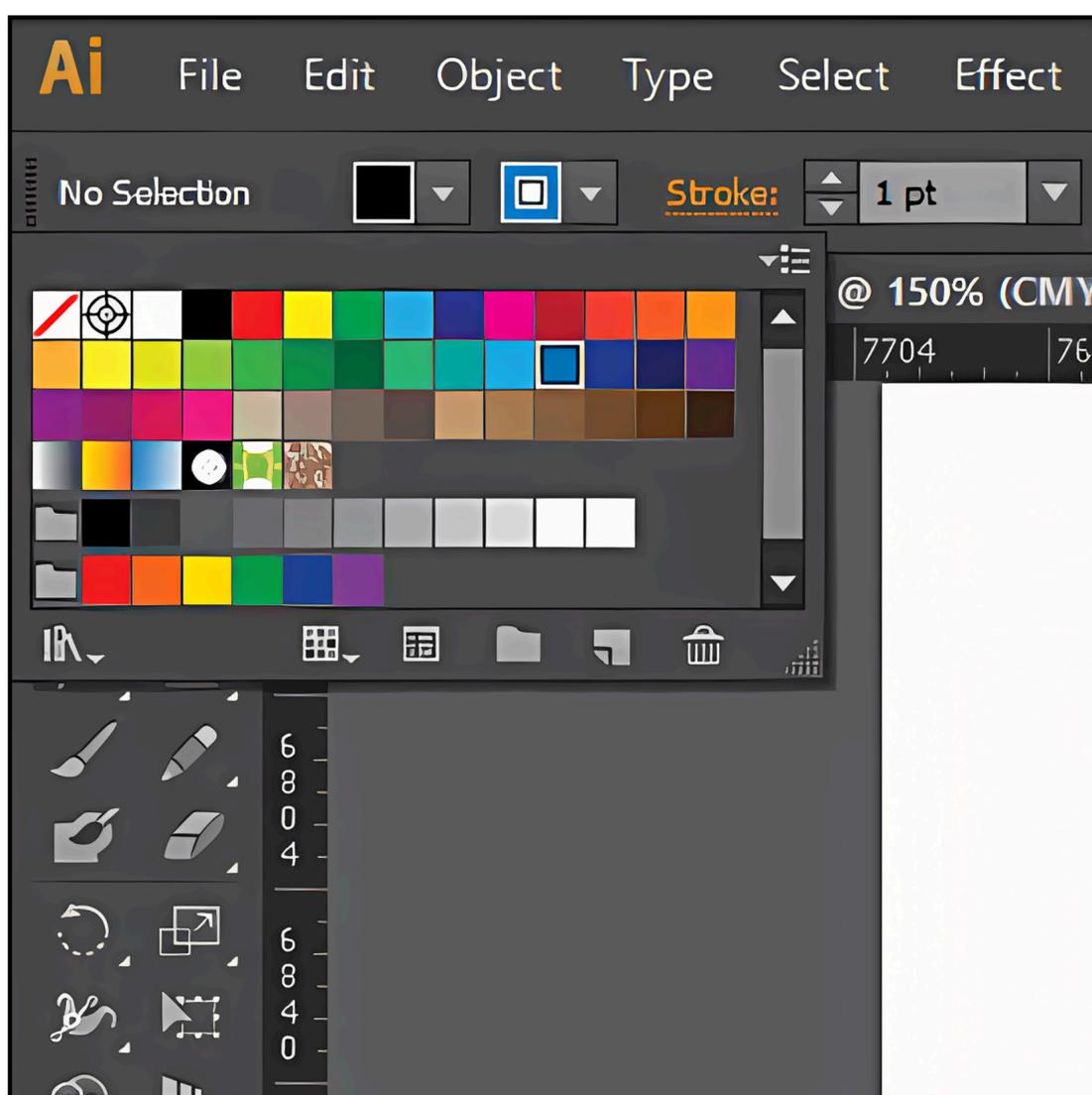


select any colour suppose we click on green, the selected colour will be filled in the shape as shown in figure 4.31.

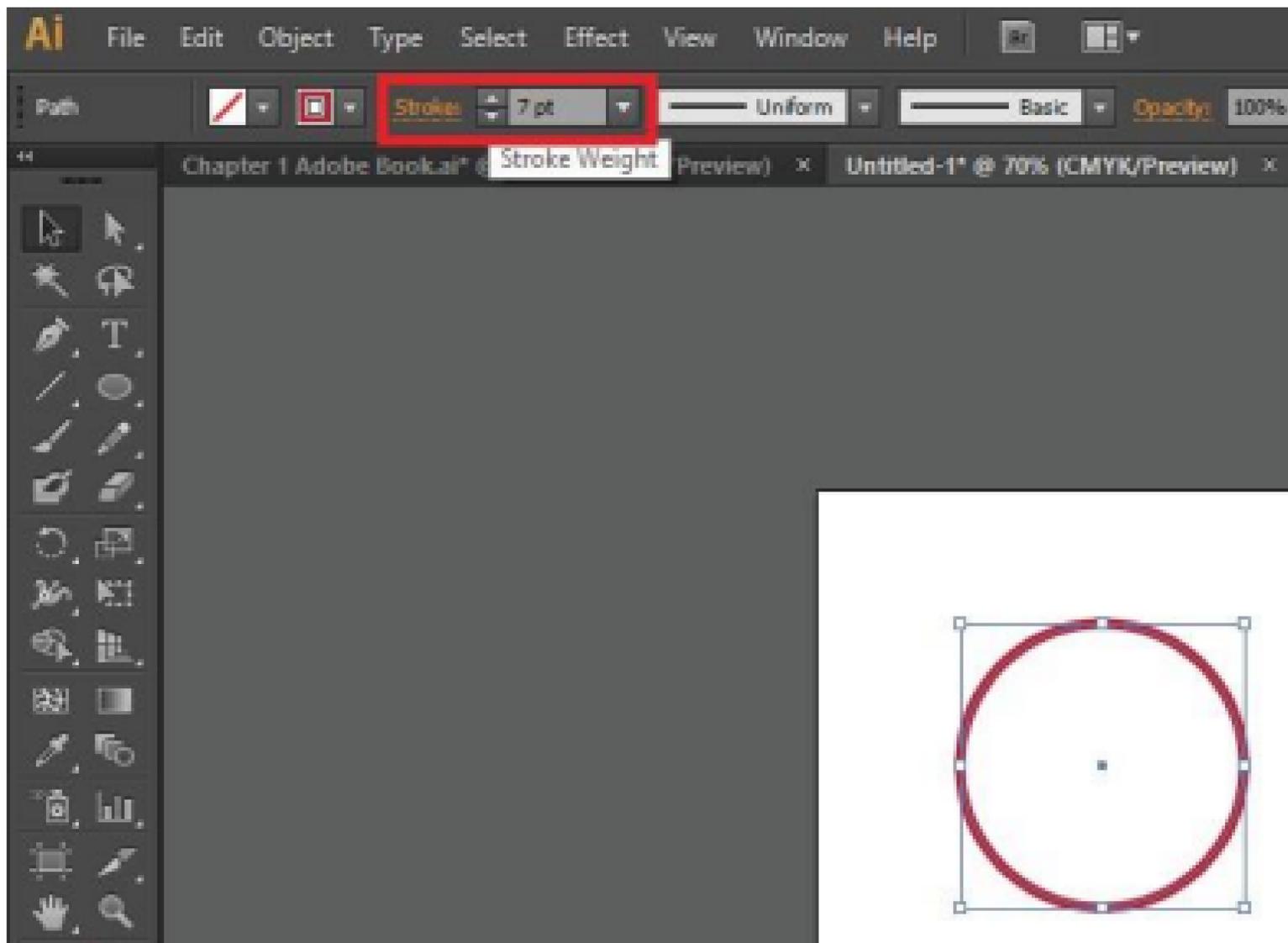


The second type of colour is Stroke colour, it is basically the outline colour of any object in the workspace. The procedure is straight forward, similar to fill colour a stroke is applied by clicking on the shape and selecting the stroke colour. You can also adjust the width of the stroke. You can also access Swatches Panel from Windows option in 'Menu bar' and can control the colors you want to apply.

For example: Select the Shape and click on stroke colors as shown in figure 4.32

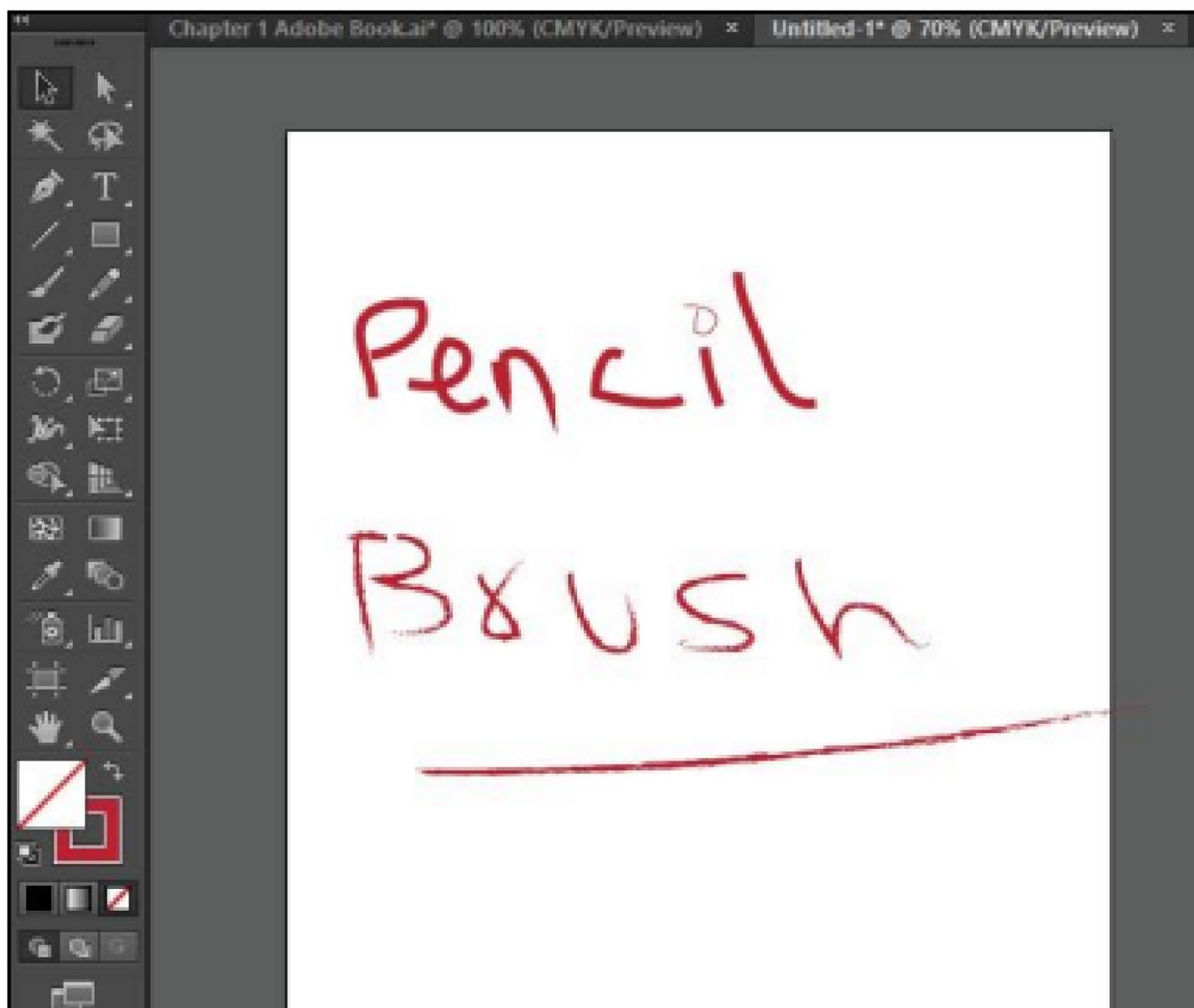
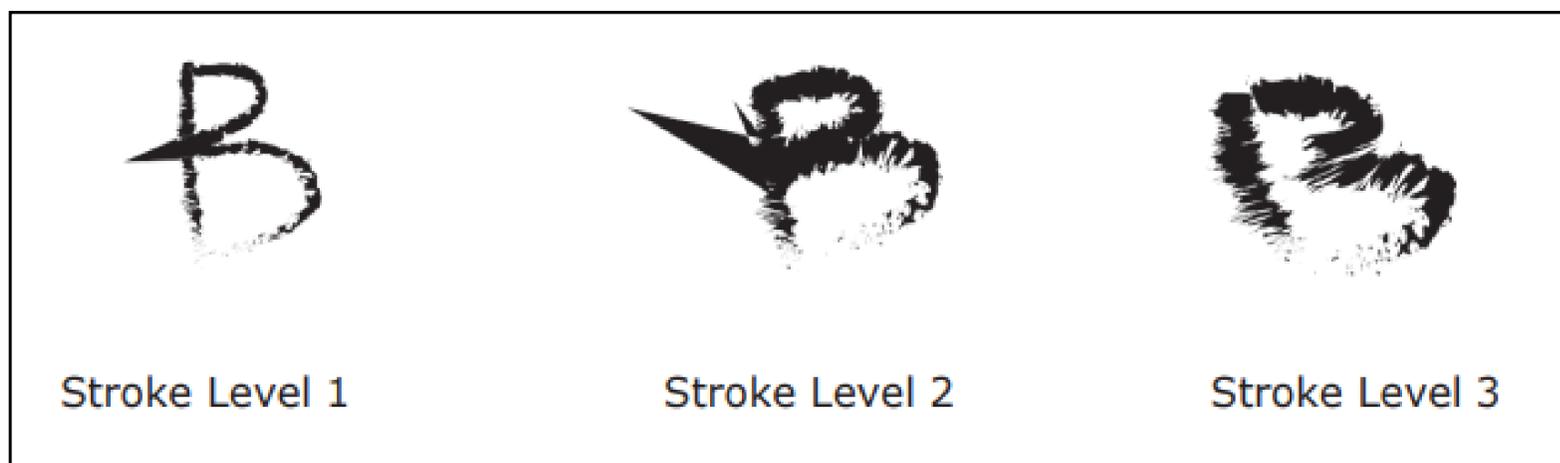


As can be seen in figure 4.33 stroke colour is applied, you can adjust the stroke width using Stroke option as shown in figure.



Brush/Pencil Tool:

A brush/Pencil tools is one of the basic tools found in graphic design and editing applications. It is a part of the painting tool set which may also include pencil tools, pen tools, fill color and many others. It allows the user to paint on a picture or photograph with the selected color. The size of the resulting stroke or line and the color can be selected from predefined options, or in some applications the user can create custom definitions. You can adjust the stroke of brush and pencil similar to stroke colour. for example:



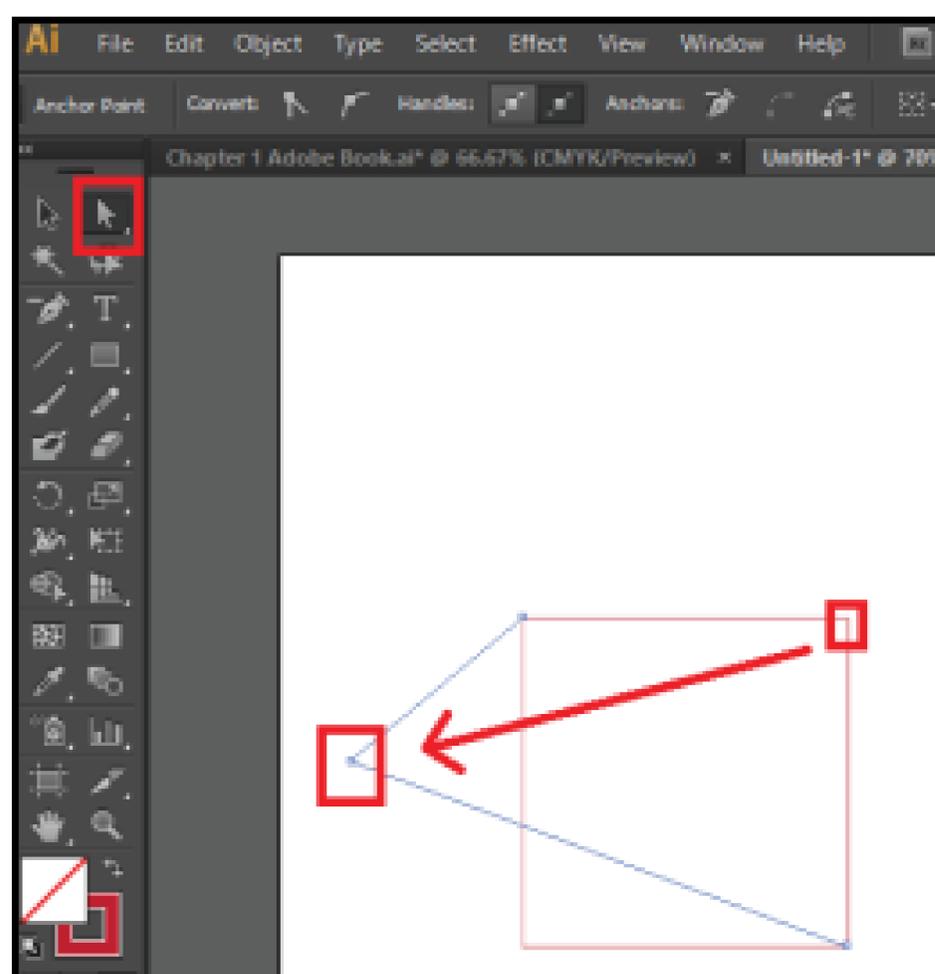
Eraser Tool:

The eraser is basically a brush which erases pixels as you drag it across the image. Pixels are erased to transparency, or the background colour if the layer is locked.

Direct Selection Tool:

Direct Selection tool allows a user to select individual points of any object. We can also select segments of any object and drag them according to the requirement. With the Direct Selection tool, you can select individual path points and segments; you can also add or subtract items to/from the selection. In addition, you can also use the Direct selection method and drag a marquee to pick sections of the path and drag a part of it to create a selection rectangle.

For example:



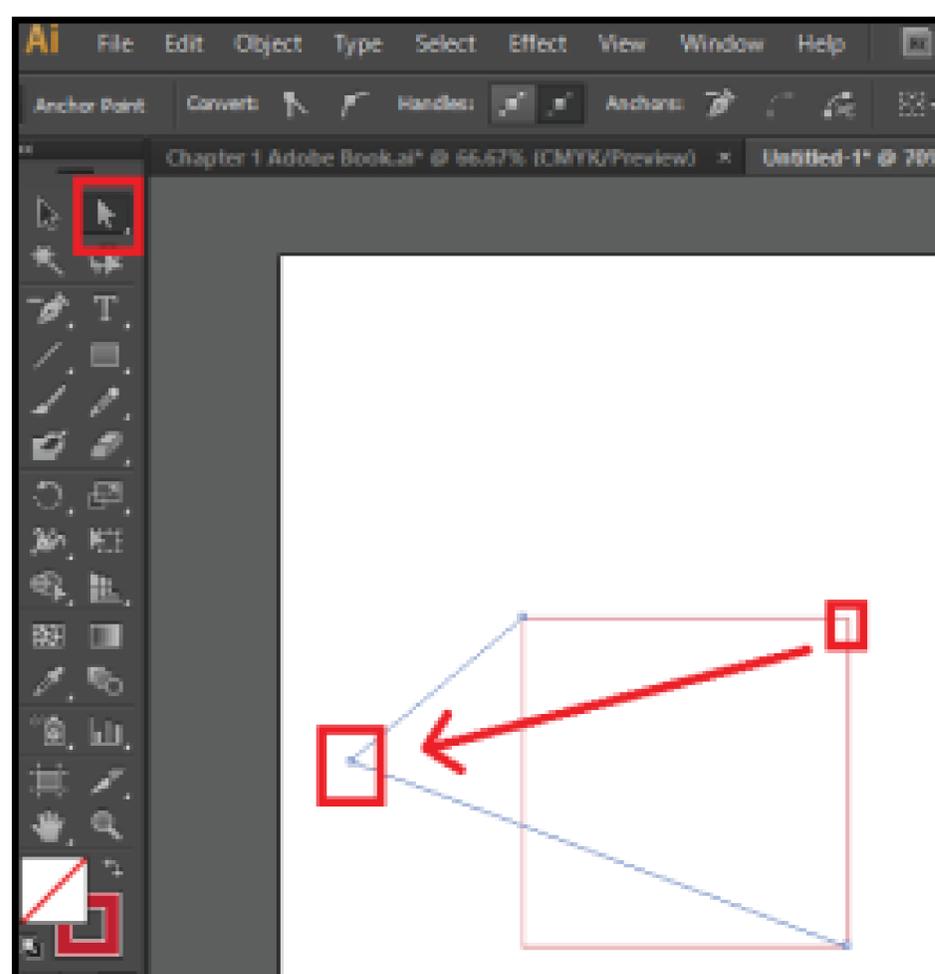
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For example:



Another Feature of Direct selection tool is that we can select a specific object from grouped objects by simply clicking on it, in this way user can select any object without ungrouping objects and it is also time efficient. as shown in figure 4.35

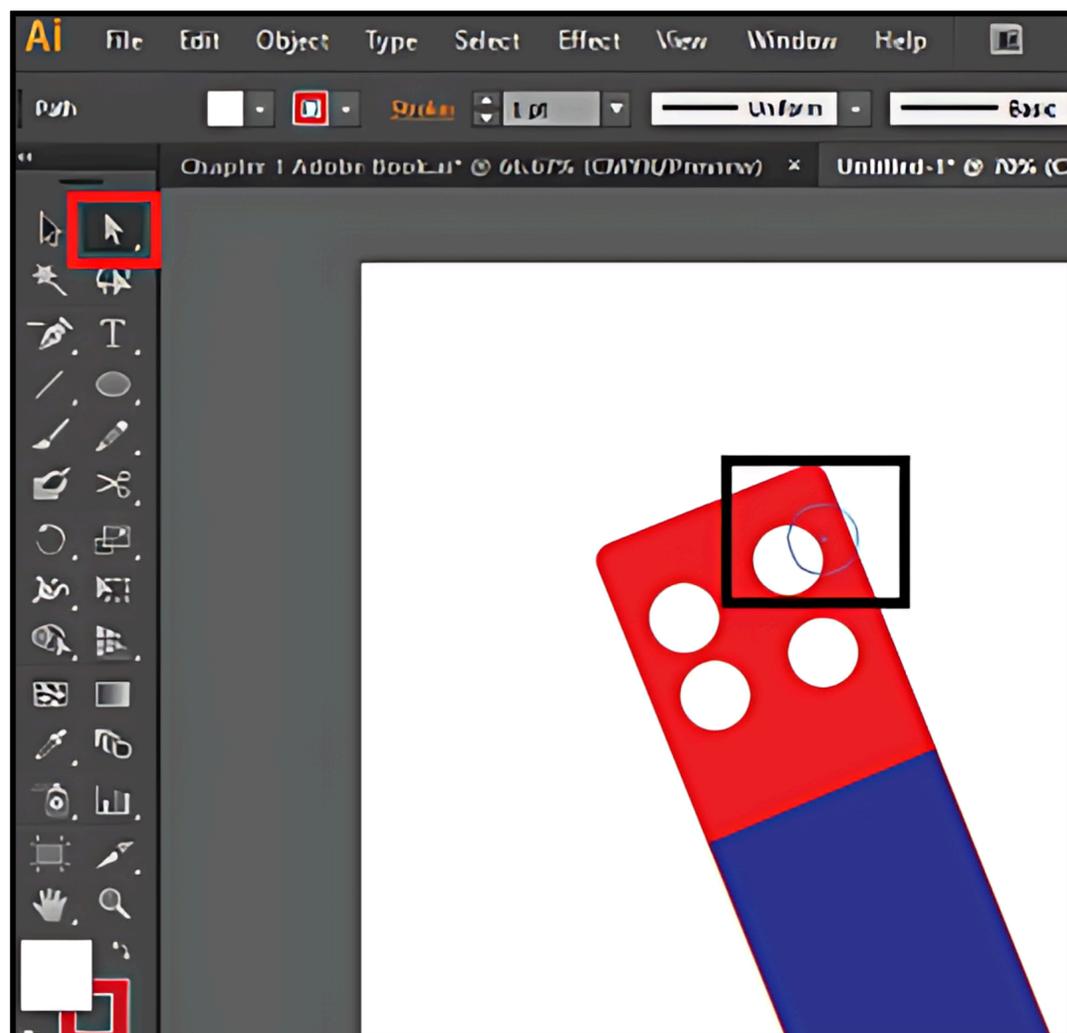


Figure 4.35

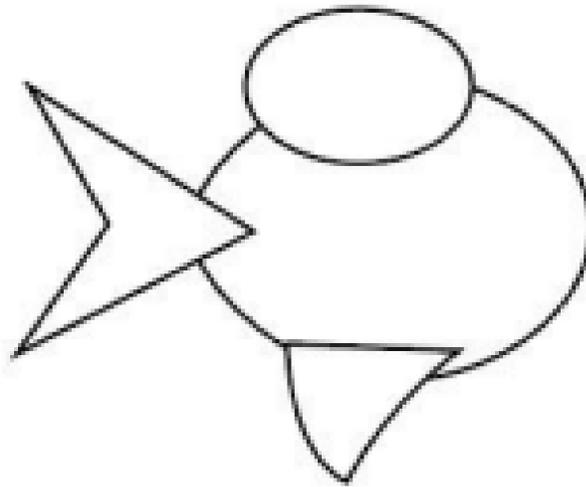
In figure 4.35 we have a Dominos Logo which is grouped. If you want to select a specific shape for instance ellipse, use direct selection tool and directly click on it instead of ungrouping it.

Shape Builder Tool:

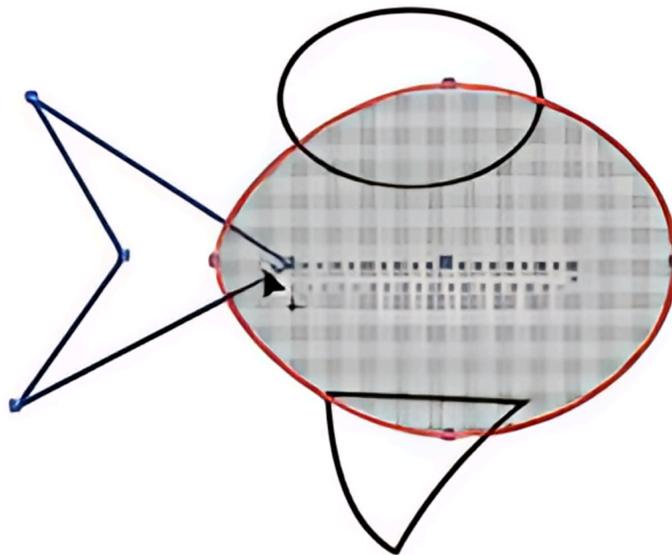
It combines multiple shapes in various compositions. You can merge shapes, as well as subtract one shape from another.

For example, let's draw a fish using shape builder tool.

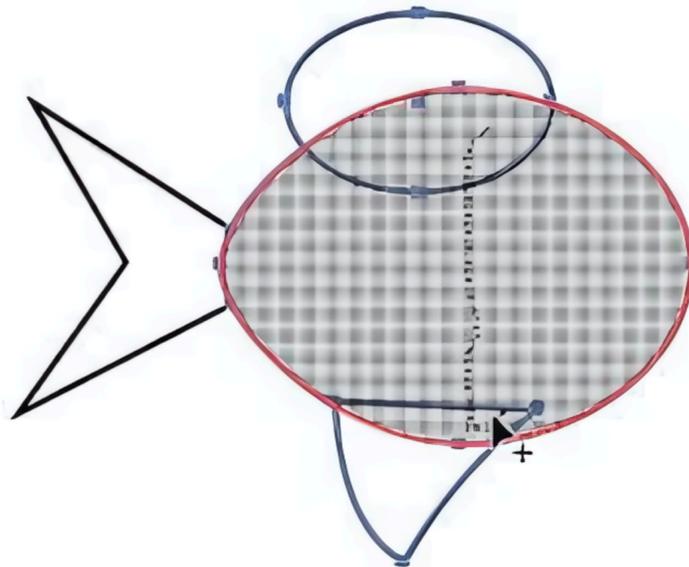
First you need to make some shapes as in below figure, this totally depends on your creativity and imagination.



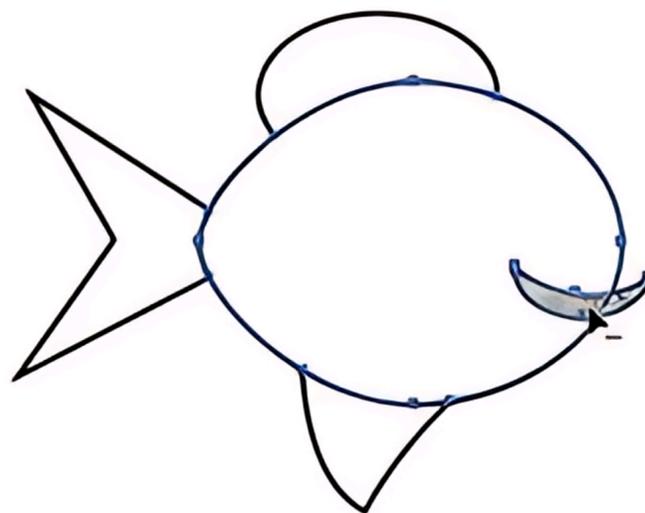
I want the body, fins and tail to be separate shapes, so first I'll select the body and tail shapes, then choose the Shape Builder Tool. This time I'll click, hold and drag through the body and just the portion of the tail that overlaps.



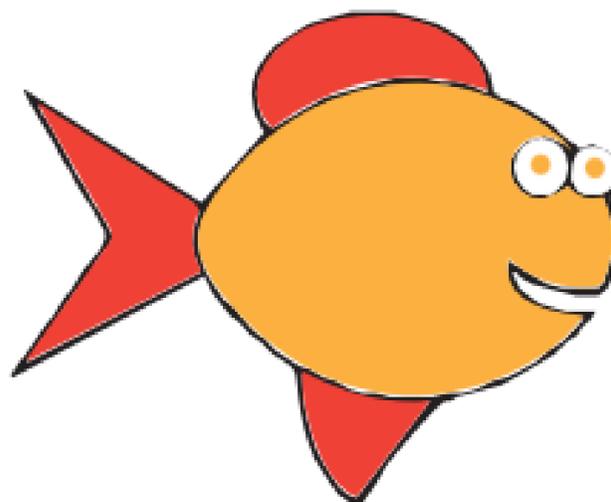
I also need to combine the overlapping sections of the fins with the body, so using the Selection Tool, I'll select the fins and body, then switch back to the Shape Builder Tool and drag through the overlapping section of the top fin shape, through the body and into the overlapping part of the bottom fin to combine them.



Here I've added another shape for the mouth, which I want to subtract from the body. I'll select the body and mouth shapes, then choose the Shape Builder Tool. This time I'll hold down the Alt and drag through just the mouth shape. Notice the minus sign [-] that appears in the cursor.



Here's the cartoon fish illustration with color applied.



Pathfinder tool:

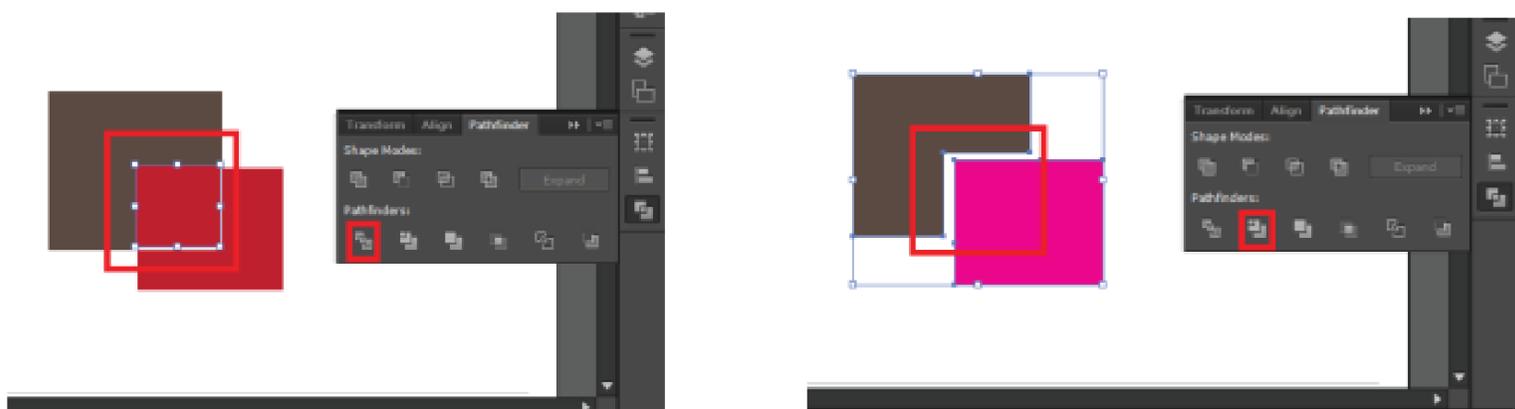
The Pathfinder Palette is one of the most useful tools in Adobe Illustrator. It makes it easier to combine paths, divide objects and subtract shapes. It's really handy to master because it helps you make neater-looking vector images and speeds up your overall workflow

Suppose we have two different shapes, the interaction with different pathfinder tools is explained below:



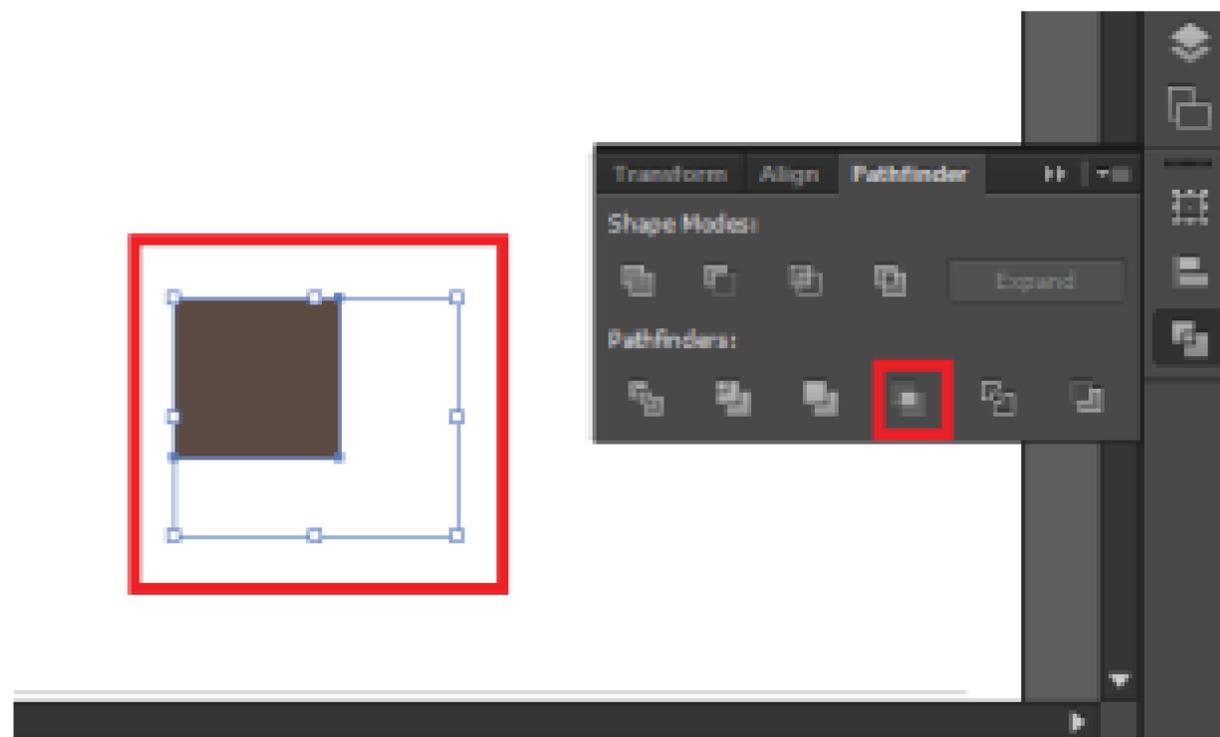
All the interactions with the shapes will be done on these two.

Divide:

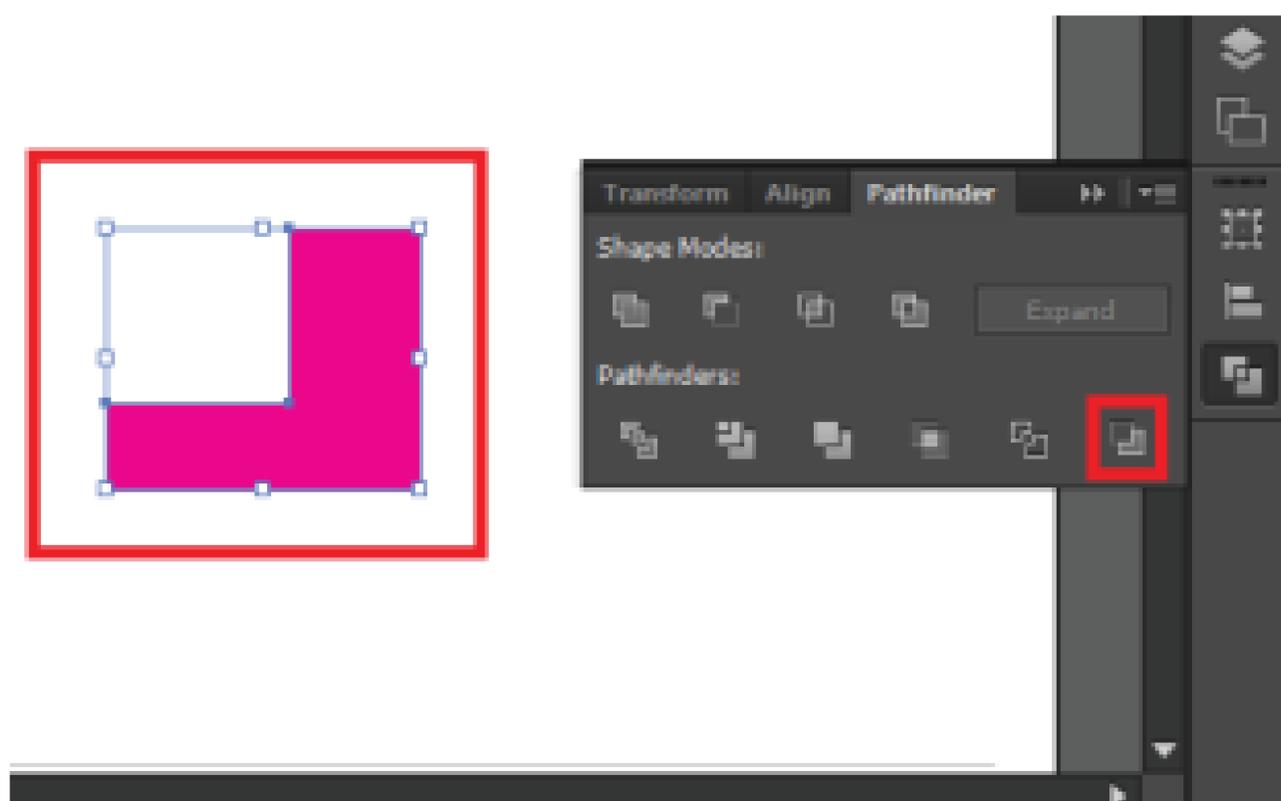


Crop:

Suppose we have two different shapes, the interaction with different pathfinder tools is explained below:



Minus Back:



4.8 Align Panel:

You use the Align panel (Window > Align) and the align options in the Control panel to align or distribute selected objects along the axis you specify. You can use either the object edges or anchor points as the reference point, and you can align to a selection, an artboard, or a key object.

When you select two different shapes in Illustrator, you will get some options in menu bar as shown in Figure 4.36.

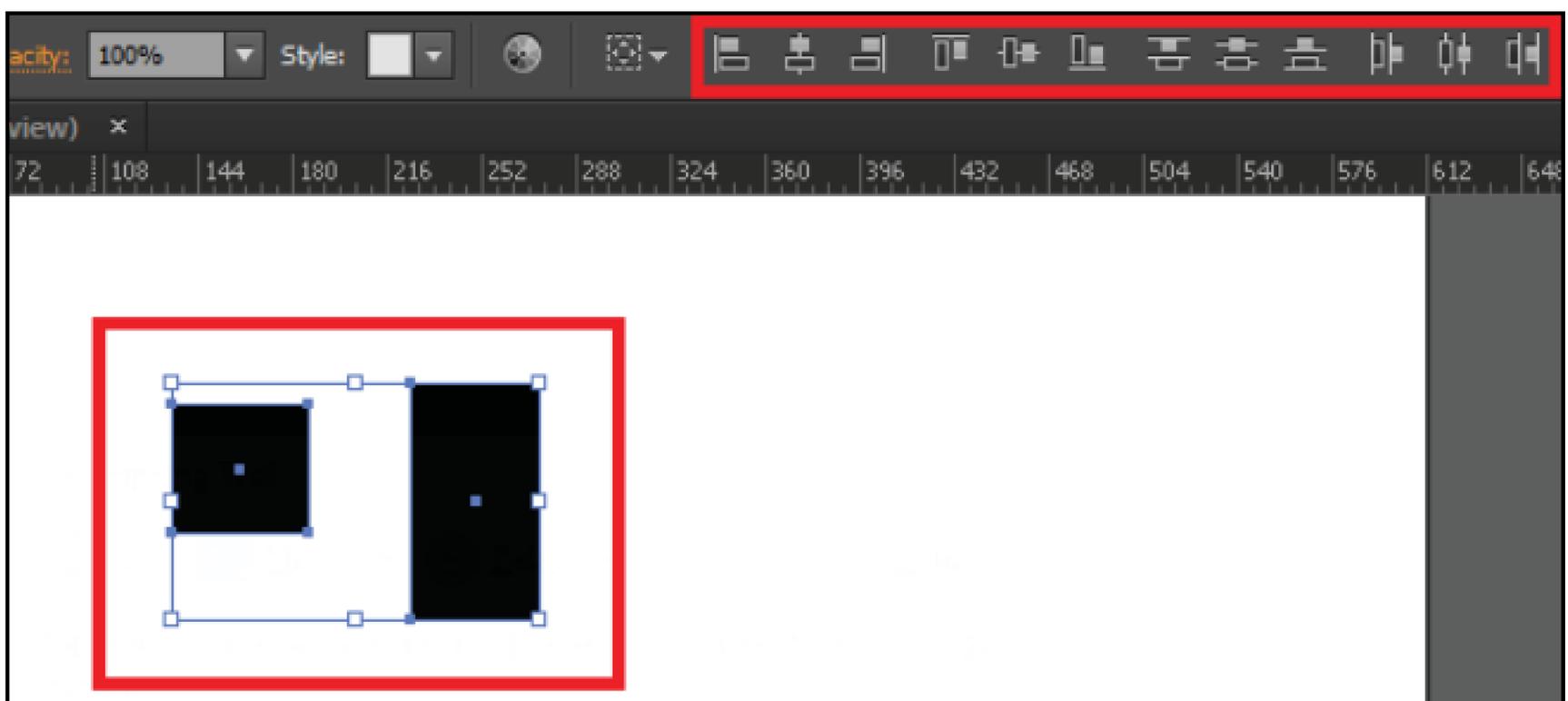


Figure 4.36

by just clicking on each option, you align two shapes either vertically, horizontally across x and y-axis.

4.9 Landscape and Portrait Illustrations:

Landscape and portrait are antonyms used in computing, printing, painting, and photography fields to refer to page orientations. They both refer to two different shapes and versions of a printout, image, or page, be it a hard or soft copy. To help most folks who are confused on which one they should refer to as portrait and which one to call landscape, here are the major differences between the two concepts.

Landscape:

A landscape orientation means a horizontal display. When it comes to sizing, a landscaped page, image, or painting is taller in height but narrower in width. For example, when a photo is taken with a camera held straight up, it gets captured in landscape mode. Other areas where a landscape orientation is required: In notices which need to be in a rectangular shape.

In videos.

On pictures of a wide subject or a large group of people. On Facebook cover photos.

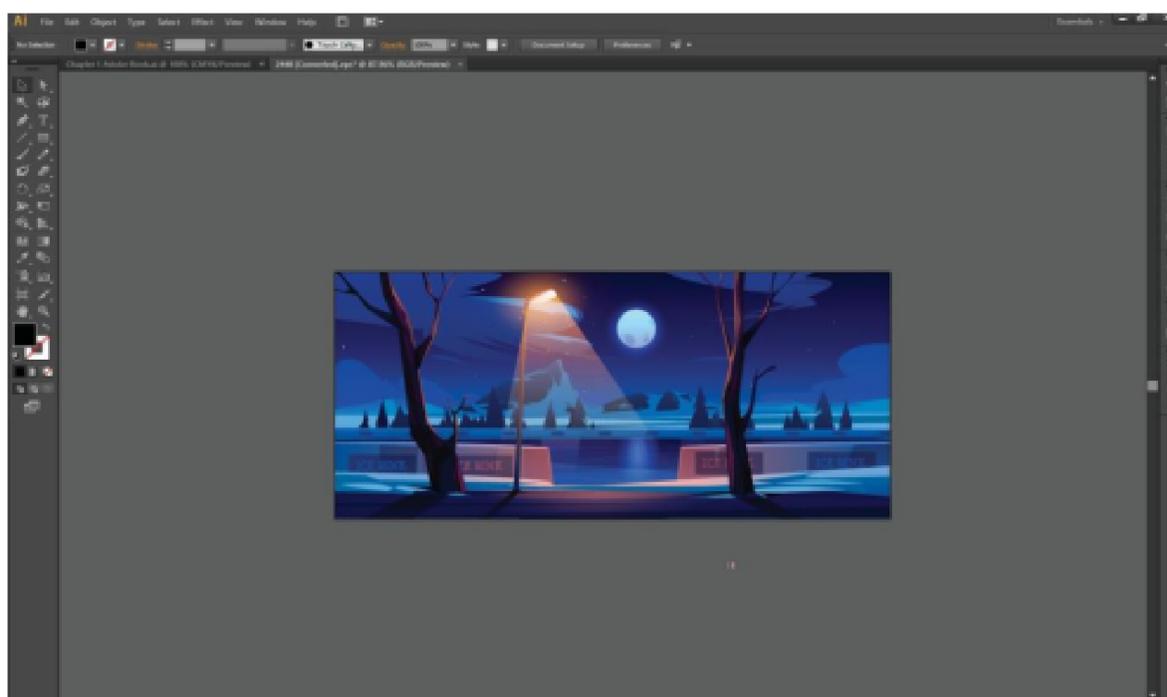


Figure 4.37: Landscape Illustration

Portrait:

A portrait orientation means a vertical display. In simple terms, a portrait page or image is shorter in height but wider in width. If you were taking a photograph and hold the camera at 90 degrees, the photo would be taken in portrait orientation.

Other areas that require portrait orientations: Pictures of tall objects.

Pictures of a single person.

A phone's lock screen image. On Facebook's profile photos.

Trim:

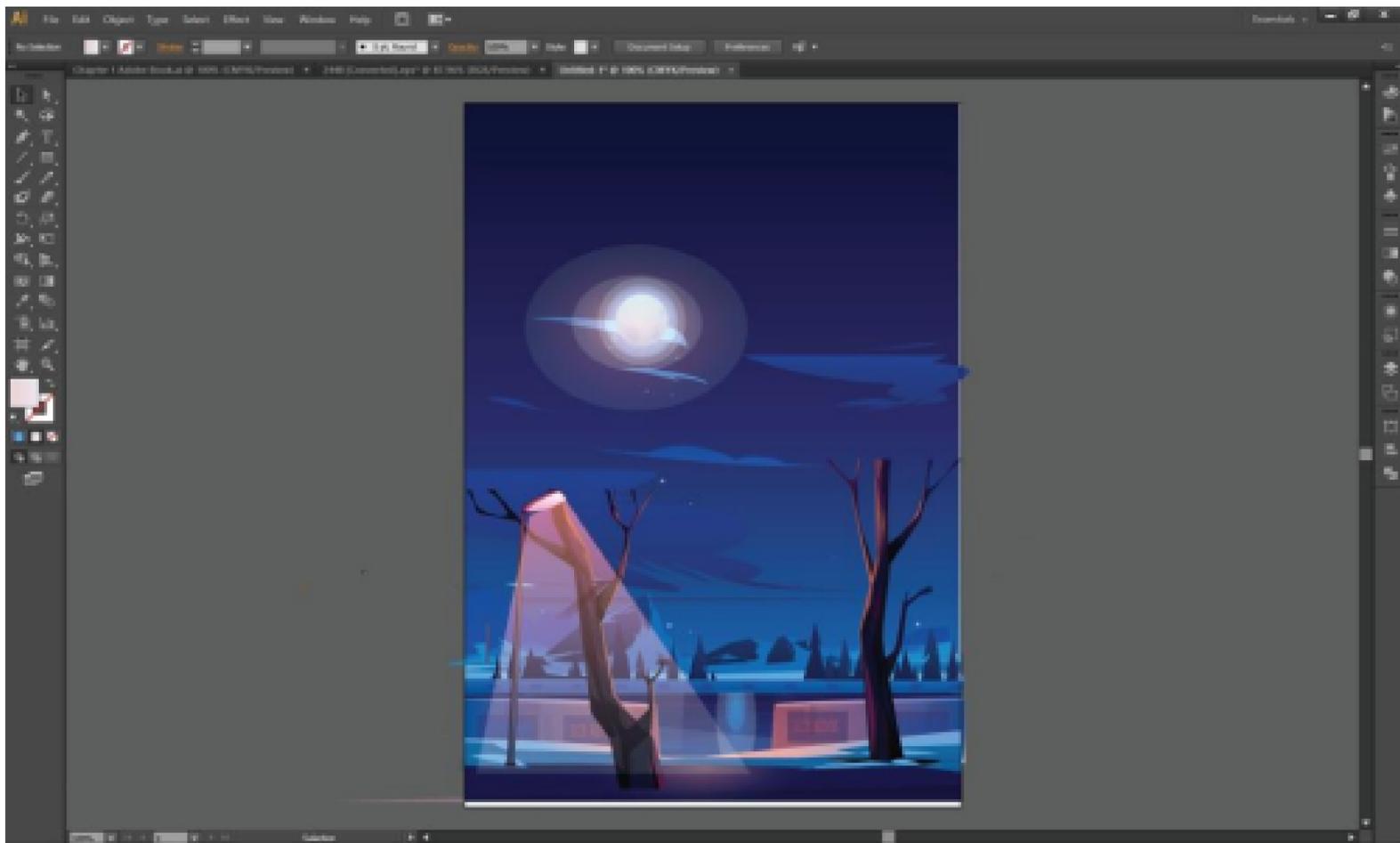


Figure 4.38: Portrait Illustration

(Section-III)

In Section-III of this chapter:

After completing this section, students will be able to: -

Know techniques of:

- ruler
- grid
- guides
- measure tool
- smart guides

4.11 Ruler:

Ruler in Illustrator is used to help organize and accurately place your illustrations. These functions can be used with their default settings but can also be customized to your needs. The shortcut key for Ruler is Ctrl+R or you can access ruler from View -> Ruler -> Show Ruler. You will see two scales as seen in Figure 4.39

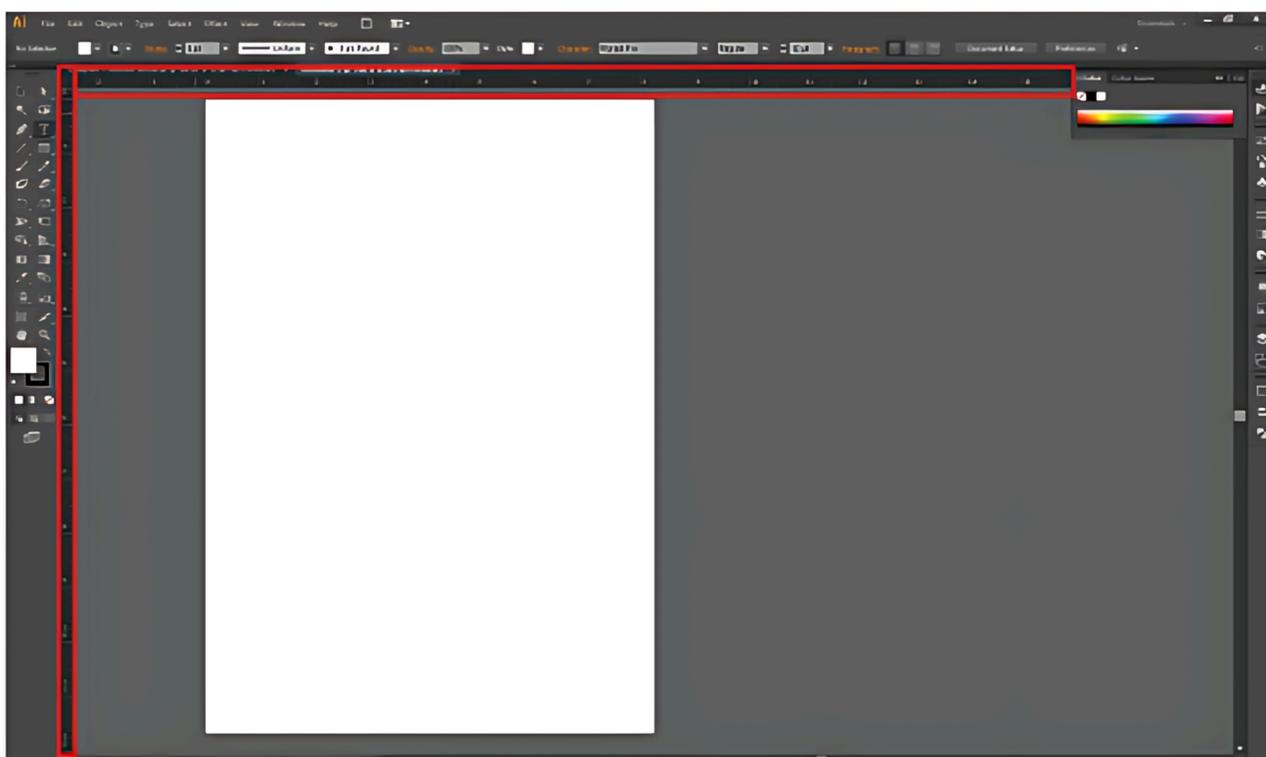


Figure 4.39: Ruler

Now you can simply use the ruler by dragging a line from upper axis and one from the lower axis as can be seen in figure 4.41.

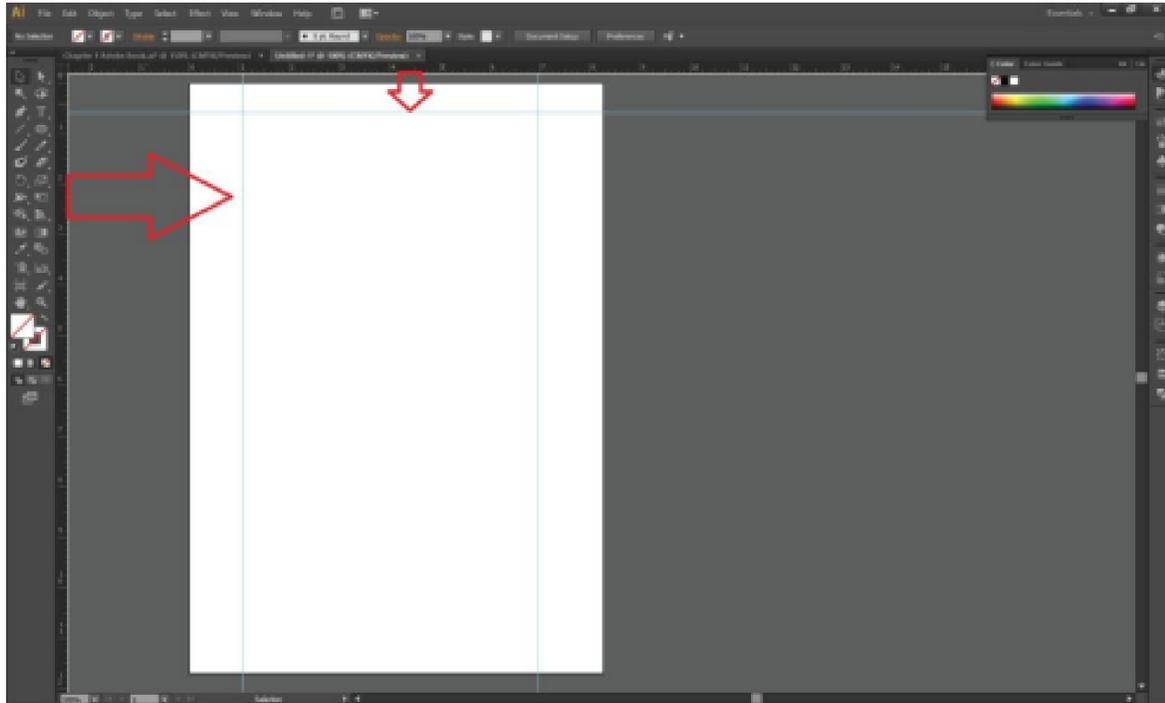


Figure 4.41

Now you can simply have a track of work you have to do under particular area.

4.12 Guides:

Guides help you align text and graphic objects. You can create ruler guides (straight vertical or horizontal lines) and guide objects (vector objects that you convert to guides). Like the grid, guides do not print.

You can choose between two guide styles—dots and lines—and you can change the color of guides by using either predefined guide colors or colors you select using a color picker. By default, guides are unlocked so that you can move, modify, delete, or revert them, but you can choose to lock them into place.

- To show or hide guides, choose View > Guides > Show Guides or View > Guides > Hide Guides.
- To change guide settings, choose Edit > Preferences > Guides & Grid (Windows) or Illustrator > Preferences > Guides & Grid (Mac OS).
- To lock guides, select View > Guides > Lock Guides.

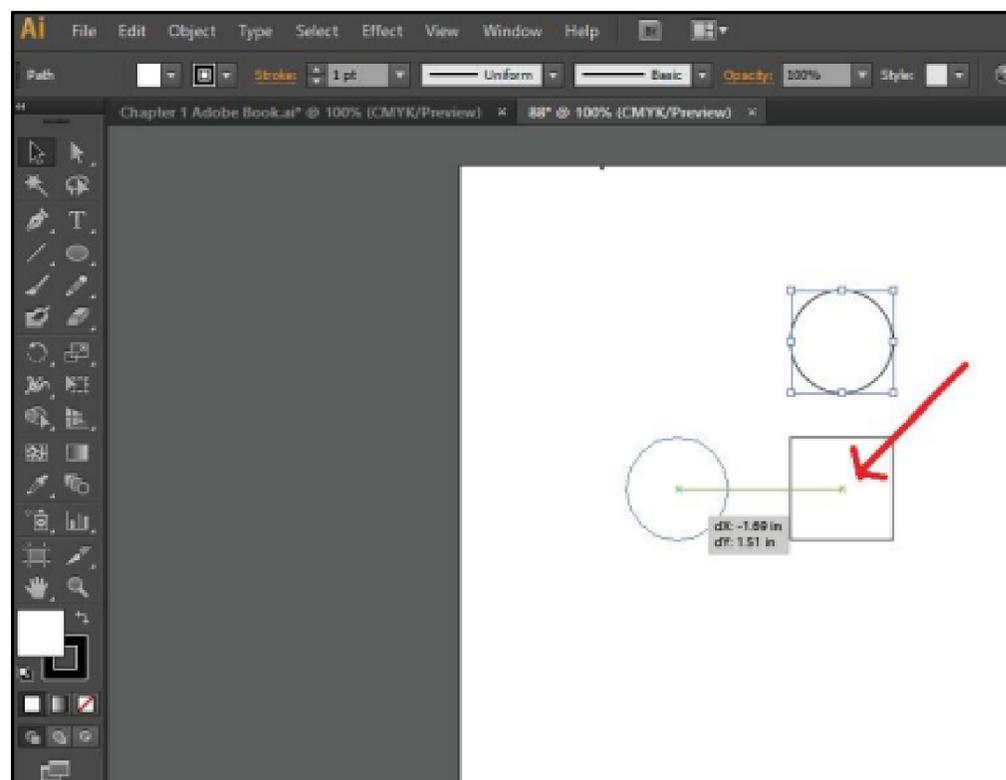


Figure 4.42

Grids:

The grid appears behind your artwork in the illustration window. It does not print.

- To show or hide the grid, choose View > Show Grid or View > Hide Grid.
- To snap objects to gridlines, choose View > Snap To Grid, select the object you want to move, and drag it to the desired location. When the object's boundaries come within 2 pixels of a gridline, it snaps to the point.

Note: If you choose View > Pixel Preview, Snap To Grid changes to Snap To Pixel

- To specify the spacing between gridlines, grid style (lines or dots), grid color, or whether grids appear in the front or back of artwork, choose Edit > Preferences > Guides & Grid (Windows) or Illustrator > Preferences > Guides & Grid (Mac OS).



Figure 4.42

(Section-IV)



In Section-IV of this chapter:

After completing this section, students will be able to: -

- define clipping mask
- describe use of clipping mask
- learn about technique of clipping mask
- export files in different formats

4.13 Clipping Mask:

When we have to hide areas of color or images then the shapes used for this purpose are called masks. The basic purpose of masks is to clip images and to insert images inside the text.

A clipping mask is a group of layers to which a mask is applied. The bottom-most layer, or base layer, defines the visible boundaries of the entire group. For example, suppose you have a shape in the base layer, a photograph in the layer above it, and text in the top-most layer. If the photograph and text appear only through the shape outline in the base layer, they also take on the opacity of the base layer.

You can group only successive layers. The name of the base layer in the group is underlined, and the thumbnails for the overlying layers are indented. Additionally, the overlying layers display the clipping mask icon.

Create a clipping mask:

- Hold down Alt (Option in macOS), position the pointer over the line dividing two layers in the Layers panel (the pointer changes to two overlapping circles), and then click.
- In the Layers panel, select the top layer of a pair of layers you want to group, and choose Layer > Create Clipping Mask, With the help of following figures, you'll have a better understanding of clipping:

Step 1: Take Two layers



Figure 4.44

Step 2: Place layer 2 on layer 1.



Figure 4.45

Step 3: Right Click on it and select clipping mask.

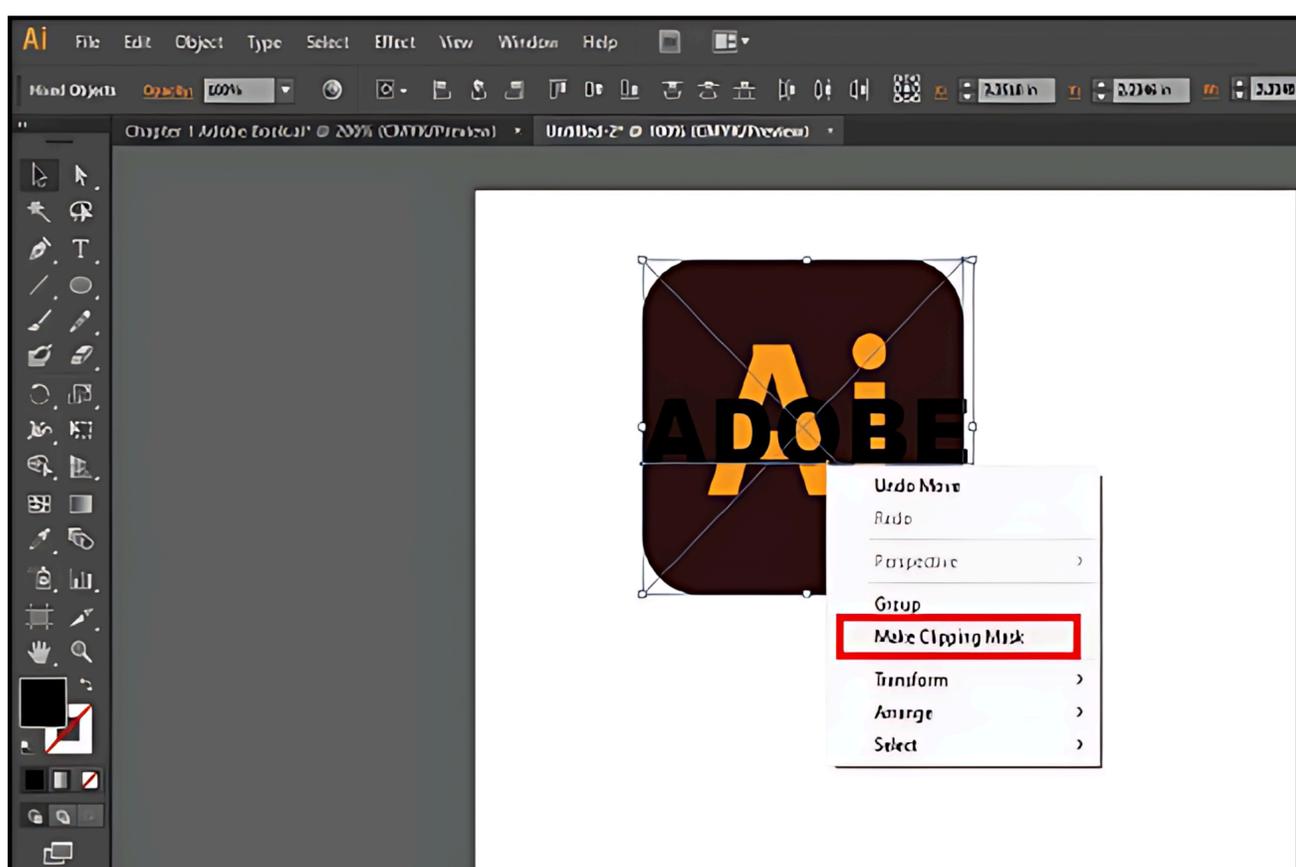


Figure 4.46

Step 4: Final Results can be seen in 4.47.

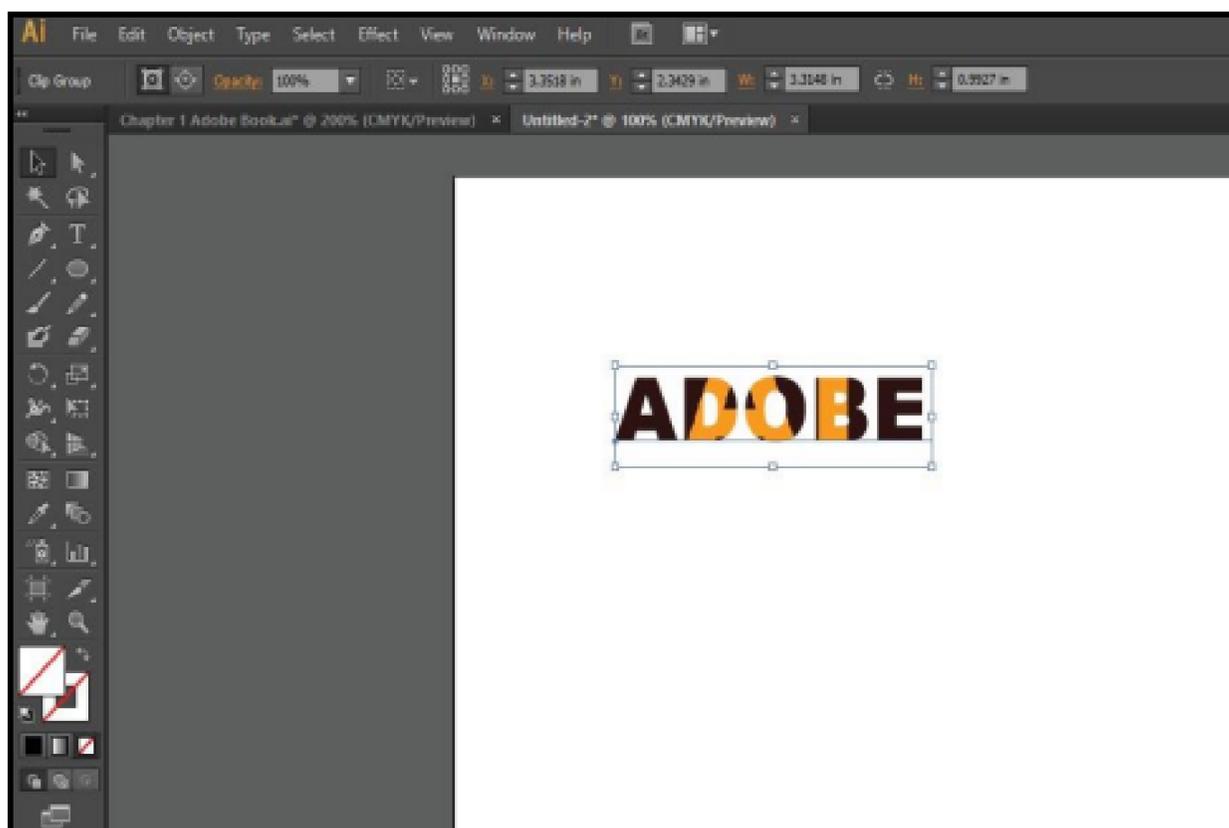


Figure 4.47

If you want to remove clipping mask , simply right click and select “Release Compound path”.

4.14 Exporting Files

- Choose File > Export.
- Select a location for the file, and enter a filename.
- Select a format from the Save As Type (Windows) or Format (macOS) pop-up menu.
- Click Save (Windows) or Export (macOS). Reference in figure 4.48.

