IT10 – Multimedia SystemIntroduction to Adobe Illustrator

Adobe Illustrator is the industry-leading graphic design tool that lets you design anything you can imagine – from logos and icons to graphics and illustrations – and customize it with professional-level precision, as well as time-saving features. You can use the graphics you create with Illustrator in any size digital or print format, and be confident they'll look exactly the way you designed them.

Vector graphics are digital images created from a series of geometrically defined points, lines, and shapes. By contrast, digital artists create raster images using a grid of colorized pixels. If you zoom in on a raster image, the individual pixels become pronounced and visible.   Vector graphics are commonly found today in the SVG, WMF, EPS, PDF, CDR or AI.
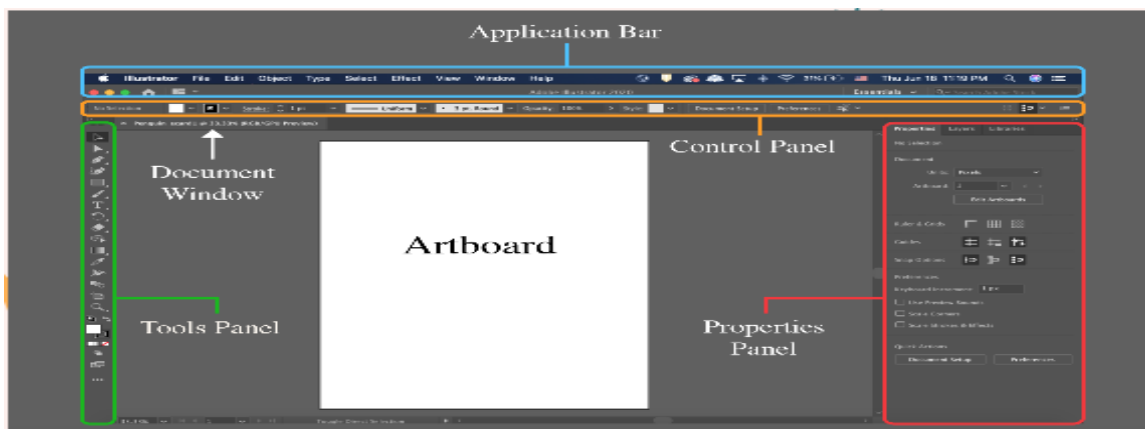
What can you do with Illustrator?
- Craft beautiful customized lettering.
- Create inspired, high-quality icons.
- Create compelling infographic designs.
- Create banner designs that stand out on the screen.
- Design professional charts and graphs.
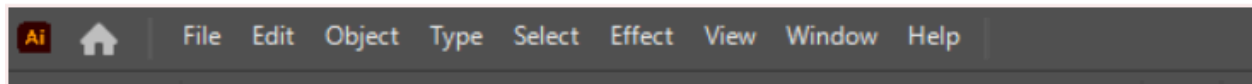- Create a custom wallpaper design.

1. Creating New Document
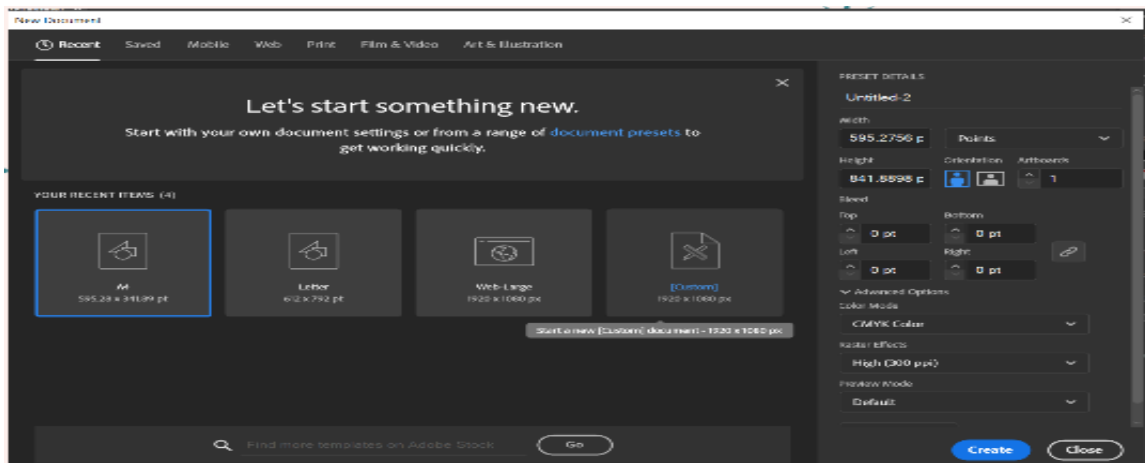
2. Navigating the application

Application Bar
The Application Bar contains the Workspace Switcher menu and a shortcut to Adobe Bridge and Adobe Stock. The Application Bar also contains the File, Edit, View, etc menus.


Document window
The Document Window displays the file that you are currently working on. If you have multiple files open, each file appears as a tab in the Document Window, as shown above.

Tools
The Tools Panel contains tools used to create and manipulate artwork (like a toolbox). To select a tool, simply click it. Tools with a triangle in the lower-right corner have additional tools hidden beneath them. To display hidden tools, click and hold a tool icon; a drop-down menu showing the hidden tools will appear.

Control Panel
The Control Panel displays options for the currently selected tool. Control Panel options are generally a small subset of those available in other panels and menus. Keep in mind that there may be additional options for your selected tool beyond those displayed in the Control Panel.
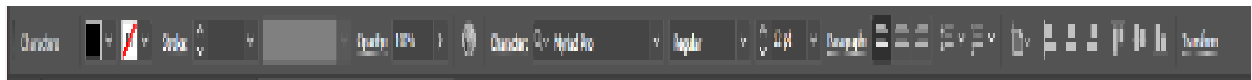
Properties Panel
The Properties Panel offers options to further monitor and modify your artwork, and some of these settings can also be found in the Control Panel. There are also two other panels: the Layers Panel and the Libraries Panel.
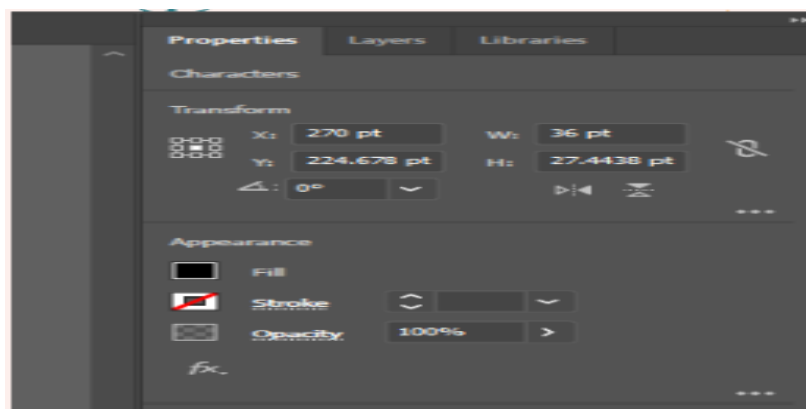
Artboards
Adobe Illustrator consists of artboards.
Artboards contains the content of your project. It can be shapes, texts, or images.

Smart Guides
Turn on Smart Guides. Smart Guides allow you to align objects on your artboard easily, and it will greatly aid you on your projects. To enable this feature, go to the Application Bar and select View > Smart Guides (ctrl + u).

Navigation Tools
Working in Illustrator often involves moving around the workspace in order to focus on different portions of your project. These tools are used in navigating the workspace.

There are six types of Navigation tools, and their hotkeys are mentioned besides the name of the tools.
- Selection tool (V)
- Direct Selection tool (A)
- Group Selection tool (A)
- Magic Wand tool (Y)
- Lasso tool (Q)
- Artboard tool (Shift+O)

Selection Tool
It is the primary tool in Illustrator that selects anything on your workspace, including artworks and images. To select, you can choose to press the shortcut "V" or click the button.

After selecting a vector object in the workspace, the anchor points and the path are distinctly visible. The tool is limited to select the paths and shapes but enjoys no access to edit or select the Anchor points.

Direct Selection Tool
Direct selection takes the selection process one step above, enabling the micro selection. It selects the whole object, and you can also choose the select the anchor point you require and increase the level of convenience in editing your design.

Group Selection Tool
The tool is helpful to select the vector objects that are grouped.

Magic Wand
The Magic Wand selects objects that fall in a similar category. It is not designed to select the anchor points; instead, it comes in handy in a complex project to select identical objects with one click. It saves plenty of time and avoids tedious work.

Lasso Tool
Lasso works similar to the Direct Selection tool, but it provides some extra convenience in selecting the anchor points. Lasso Tool is a freehand selection tool that allows the free selection of anchor points in a complex drawing.

Art Board Tool
The tool makes it easy to select and drag the workspace to the size or dimensions that you want it to be.

Fit Artboard in Window
Fit Artboard in Window (ctrl + 0) Used to quickly fit the artboard within the current window. In the Application Bar, go to View > Fit Artboard in Window.

Hand Tools
Hand Tool (h or space(horizontal) / ctrl(vertical) + mouse scroll) allows you to pan over the artboard.

Zoom Tools
Zoom Tool (z or ctrl +/- or alt + mouse scroll) allows you to zoom in or out of the artboard.

Brush Tool
It is the best tool for freehand drawing in Adobe Illustrator. The level of control provides is amazing in adjusting the size and shape of the brush.

IT 10 – Multimedia SystemIntroduction to vector graphics

Vector Image
A **vector image** is an image created using mathematical formulas to represent the image, rather than using a grid of pixels.

This type of image is often used for logos and illustrations because it can be scaled to any size without losing quality. In contrast, bitmap images (also known as raster images) are made up of pixels, which can become blurry or distorted when they are enlarged.

1. **SVG (Scalable Vector Graphics)**
2. **AI (Adobe Illustrator)**
3. **EPS (Encapsulated PostScript)**
4. **PDF (Portable Document Format)**
5. **CDR (CorelDRAW) format**

SVG (Scalable Vector Graphics)
An SVG (Scalable Vector Graphics) is a vector format that uses XML to define its graphics. SVG files are resolution-independent, meaning they can be scaled up or down without losing image quality. This makes them ideal for responsive design.

AI (Adobe Illustrator)
An AI (Adobe Illustrator) file is a vector graphics file that is created in Adobe Illustrator. It uses the file extension .ai. AI files are commonly used by graphic designers and artists to store

images and graphics. AI files are typically created using vector-based drawing software, such as Adobe Illustrator or CorelDRAW.

EPS (Encapsulated PostScript)
EPS is a vector file format often required for professional and high-quality image printing. PostScript printers and image setters typically use EPS to produce vast, detailed images — such as billboard advertising, large posters, and attention-grabbing marketing collateral.

PDF (Portable Document Format)
is a type of vector image that uses the file extension .pdf. PDFs are created by Adobe Acrobat and can be opened in many different programs, including Adobe Illustrator and Inkscape.

PDFs are often used to create high-quality print documents. They can be scaled up or down without losing any quality, and they support transparency and colour management. However, print documents are not well suited for publishing and distributing web content, as they are not optimised for phones, SEO, or accessibility.

CDR (CorelDRAW) Format
CDR (CorelDRAW) format is a vector image file format used by CorelDRAW. It uses the file extension .cdr. CDR files are commonly used by graphic designers to store images and graphics. CDR files are typically created using vector-based drawing software, such as CorelDRAW.

Adobe Illustrator
Adobe Illustrator is a software application for creating drawings, illustrations, and artwork using a Windows or MacOS computer. Illustrator was initially released in 1987 and it continues to be updated at regular intervals, and is now included as part of the Adobe Creative Cloud.

Illustrator is widely used by graphic designers, web designers, visual artists, and professional illustrators throughout the world to create high quality artwork. Illustrator includes many sophisticated drawing tools that can reduce the time needed to create illustrations.

How Adobe Illustrator is Used
Adobe Illustrator is used to create a variety of digital and printed images, including cartoons, charts, diagrams, graphs, logos, and illustrations. Illustrator allows a user to import a photograph and use it as a guide to trace an object in the photograph.

This can be used to re-color or create a sketch-like appearance of a photograph. Illustrator also makes it possible to manipulate text in many ways, making Illustrator a useful tool for creating postcards, posters, and other visual designs which use text and images together.

Illustrator's ability to place text around a curve is especially useful for artists creating logos. Illustrator is also used in designing mock-ups which show what the website will look like when it's completed, and creating icons used within apps or websites.

What is Illustrator CC?
Illustrator CC is the version of Illustrator that's available through Creative Cloud, which is Adobe's cloud-based subscription service. The first version of Illustrator CC was Illustrator v17, which was released in 2013.

Adobe Illustrator History

The **Version 1** of Illustrator was initially released in 1987 for the **Apple Macintosh**. At the time, Adobe was focused on developing fonts and providing a language that computers could use to communicate with office printers, known as **PostScript**.

Illustrator also supported Adobe's font development efforts and also served as a companion product for Photoshop, which Adobe did not initially develop but they distributed and purchased. The original version of Illustrator didn't have a preview mode, and users needed to open a second window to preview their work.

Illustrator **Version 2** was released in 1989 and was the first version of Illustrator to support the Windows operating system. Adobe also released versions of Illustrator for various other operating systems during the early 1990s, including NeXT, Silicon Graphics, and Sun Solaris.

However, all of these versions were discontinued due to poor sales as these operating systems failed to gain widespread acceptance.

Version 4 was the next version of Illustrator to support Windows, which was also the first version to support editing while in preview mode. However, this capability was available for Macintosh until **version 5**, which was released in 1993.

Illustrator **Version 6** was the last version to be Macintosh-focused because the interface in subsequent versions changed dramatically to provide greater compatibility with Windows. Adobe also added path editing in 1997 with **version 7**, primarily to make the interface more similar to the one used by Photoshop.

Another significant change in version 7 of Illustrator was the addition of support for TrueType fonts, effectively ending the competition between TrueType, and PostScript Type I fonts.

Version 7 was also the first version of Adobe Illustrator to support plug-ins, which greatly extended Illustrator's capabilities by allowing third-parties to add capabilities that were not part of the standard Illustrator functionality.

The release of **version 11** was marketed as Illustrator CS, or Creative Suite which occurred in 2003. The **Adobe Creative Suite (CS)** also included other graphic design applications such as InDesign and Photoshop.

This version was also the first to support the creation of **3-dimensional objects**. **Illustrator CS2** was released in 2005. New features for Illustrator CS2 included a custom workspace and control palette. **Illustrator CS3** was released in 2007 and added features including live color, multiple crop areas, and a color guide panel.

Adobe Illustrator CS4 was released in 2008, which made improvements to existing tools and introduced some FreeHand features such as the ability to maintain multiple art boards. Each art board can maintain a separate version of an image, allowing users to store multiple versions of the image within a single document.

Additional tools were introduced in **Illustrator CS5** including an upgraded gradient tool that provides the user with greater control when manipulating colors across a path.

Illustrator CS5, released in 2010, introduced the **Bristle Brush**, which provides more natural looking strokes. Additional changes that are new with this version include **Freehand's Perspective Grid** and **various improvements to existing features**.

Version CS6, released in 2012, introduced many new features, including a new interface and layer panels. Changes to the **color ramp** and **RGB codes** as well as various bug fixes also improved Illustrator CS6's performance.

## Working with Paths, Shapes, and Anchor Points

What is Path?
A path contains one or more straight or curved line segments that you draw on canvas using the Pen, Pencil, or Curvature tool.
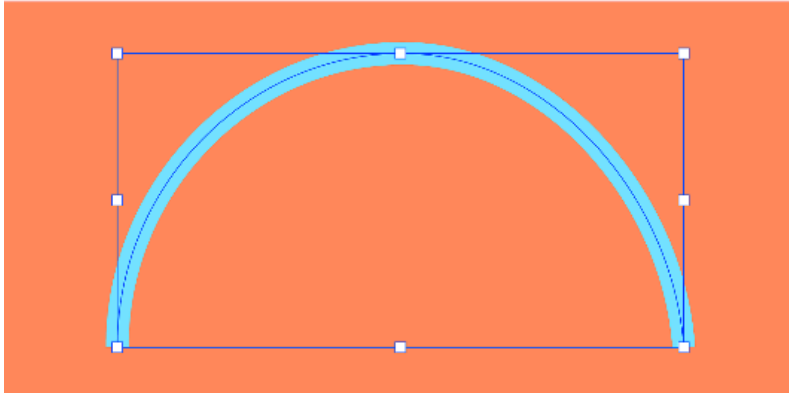
Types of Path

- **Open:** A connected series of line segments where the start and end points are not joined with each other.

- **Closed:** A connected series of line segments where the start and end points are joined together to form a shape.
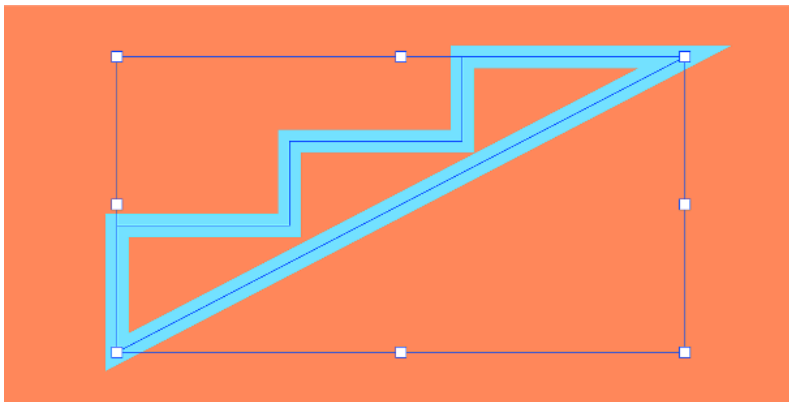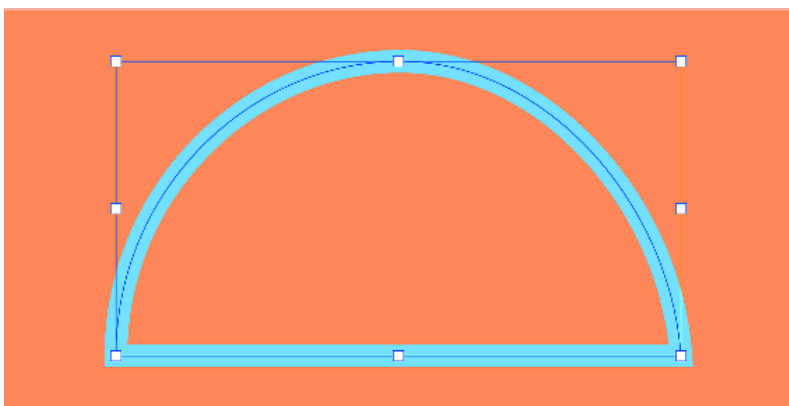
Straight Open Path
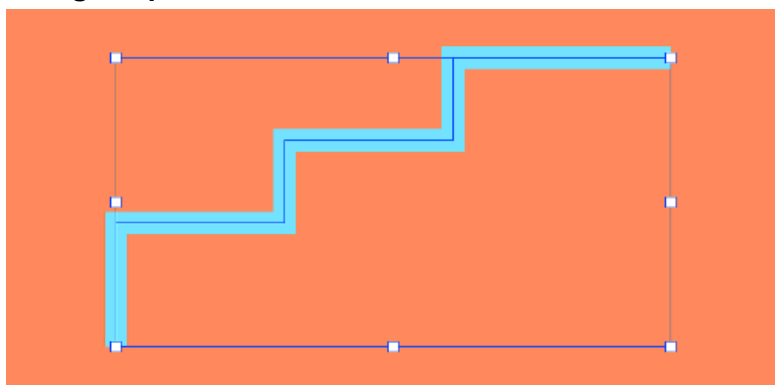
Curved Open Path

A Straight Closed Path

A Curved Closed Path

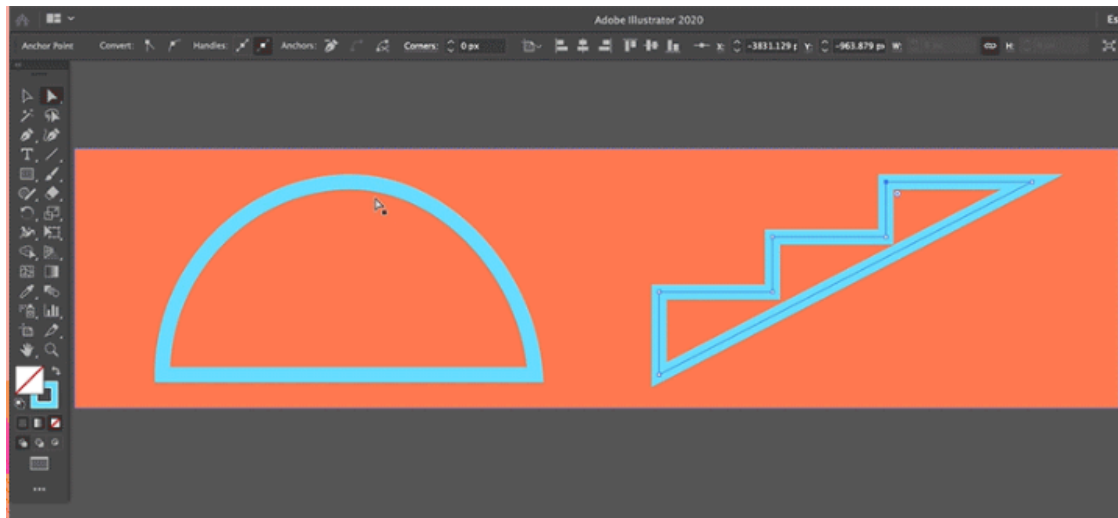**What is Anchor Point?**
Anchor points are the points on a path that control the shape and the direction of that path. The anchor points on the end points of a path are called control handles or corner points. Corner points can be straight or curved points, depending upon the shape they join.
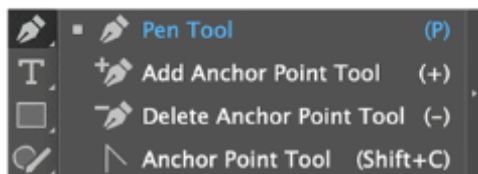
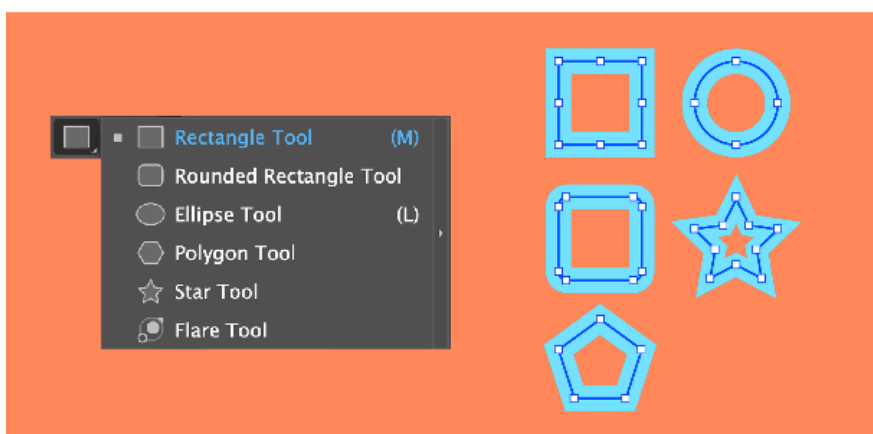**Moving the anchor point changes the shape.**

How to Create and Modify a Path
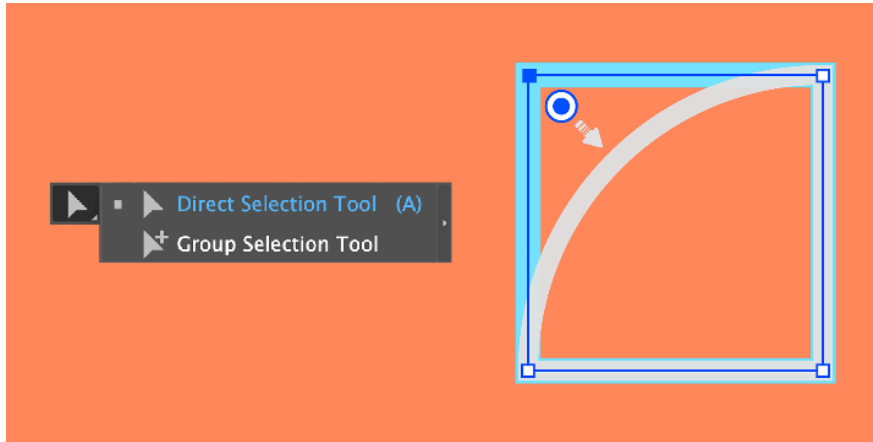Use the tools available in the toolbar to create a path: **Pen**, **Pencil**, and **Curvature** tools.

Shape Builder Tools
You can create basic shapes using the Shape Builder tools. Press and hold the **Rectangle tool** from the toolbar to choose a shape tool from the drop-down list.

Move Corner Points to Experiment with Shapes
To view corner points, select the shape using the **Direct Selection tool**. Now, you can change the corner points and try out new shapes.

Play with Outline and Fill Colors

You can use **Fill** and **Stroke** tools available in the toolbar to add color.

- **Fill:** Adds the color to the entire shape.

- **Stroke:** Provides color only to the outline of the shape.

You can also select a weight for the stroke color using the **Stroke** drop-down in the Control panel.