Experiment No.: 9

Aim: Write an application that draws basic graphical primitives on the screen.

Theory:

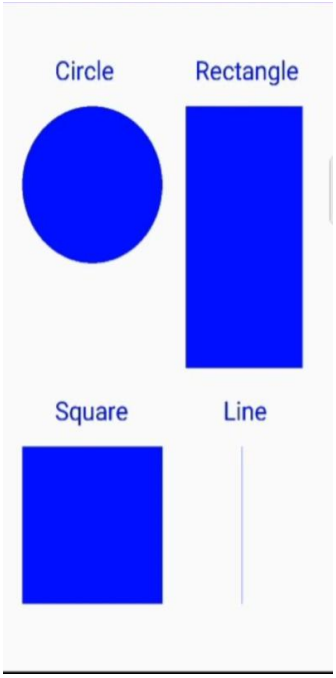
Graphical primitives are the fundamental building blocks used to create visual elements in an application. In Android development, these primitives include lines, rectangles, circles, ovals, and arcs, which can be drawn using the **Canvas API**. The **Canvas** class provides methods for rendering shapes, while the **Paint** class defines attributes such as color, stroke width, and style. To draw these primitives, developers typically create a custom **View** by extending the View class and overriding the onDraw(Canvas canvas) method. The drawLine method is used for drawing straight lines, drawRect for rectangles, drawCircle for circles, drawOval for ovals, and drawArc for arcs. Additionally, text can be displayed on the screen using the drawText method. These graphical elements are widely used in applications for tasks such as game development, data visualization, and custom UI components. By leveraging the Canvas API, developers can create visually rich and interactive applications in Android Studio.

ALGORITHM:

Step 1: Open Android Studio and then click on File -> New -> New project.
Step 2: Then type the Application name as "graphical" and click Next.
Step 3: Then select the Minimum SDK as shown below and click Next.
Step 4: Then select the Empty Activity and click Next. Finally click Finish.
Step 5: Design layout in activity_main.xml.
Step 6: Draw basic object details give in Main Activity file.
Step 7: Save and run the application.

Github Link: https://github.com/KrutikaPandya/MC-experiments/tree/main/EXP09-Graphical%20Primitives

Screenshots:



Conclusion: Thus a Simple Android Application that draws basic graphical primitives on the screen using Android Studio is developed and executed successfully.