Ex No. 03   **Write an application that draws Basic Graphical Primitives on the**

Aim:

To develop a Simple Android Application that draws basic Graphical Primitives on the screen.

Procedure:

Creating a New project:

Open Android Studio and then click on **File -> New -> New project**.

Then type the Application name as **"exno3″** and click Next.

Then **select the Minimum SDK** as shown below and click next.

Then **select the Empty Act**ivity and click next.

Finally click **Finish**.

It will take some time to build and load the project.

Designing layout for the Android Application:

Click on **app -> res -> layout -> activity_main.xml**.

Now click on Text.
Now click on Design and application will be displayed.

So now the designing part is completed.

Java Coding for the Android Application:

Click on **app -> java -> com.example.exno3 -> MainActivity**.
So now the Coding part is also completed.

Now run the application to see the output.

Code for Activity_main.xml:

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   android:layout_width="match_parent"
   android:layout_height="match_parent">

<ImageView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/imageView" />
</RelativeLayout>
```

Code for MainActivity.java:

```java
package com.example.exno3;

import android.app.Activity;
import android.graphics.Bitmap;
import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.graphics.drawable.BitmapDrawable;import
```

```java
android.os.Bundle;
import android.widget.ImageView;

public class MainActivity extends Activity
{
  @Override
  public void onCreate(Bundle savedInstanceState)
  {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    //Creating a Bitmap
    Bitmap bg = Bitmap.createBitmap(720, 1280, Bitmap.Config.ARGB_8888);

    //Setting the Bitmap as background for the ImageView ImageView
    i = (ImageView) findViewById(R.id.imageView);
    i.setBackgroundDrawable(new BitmapDrawable(bg));

    //Creating the Canvas Object
    Canvas canvas = new Canvas(bg);

    //Creating the Paint Object and set its color & TextSize
    Paint paint = new Paint();
    paint.setColor(Color.BLUE);
    paint.setTextSize(50);

    //To draw a Rectangle
    canvas.drawText("Rectangle", 420, 150, paint);
    canvas.drawRect(400, 200, 650, 700, paint);

    //To draw a Circle
    canvas.drawText("Circle", 120, 150,
    paint);
    canvas.drawCircle(200, 350, 150, paint);
```
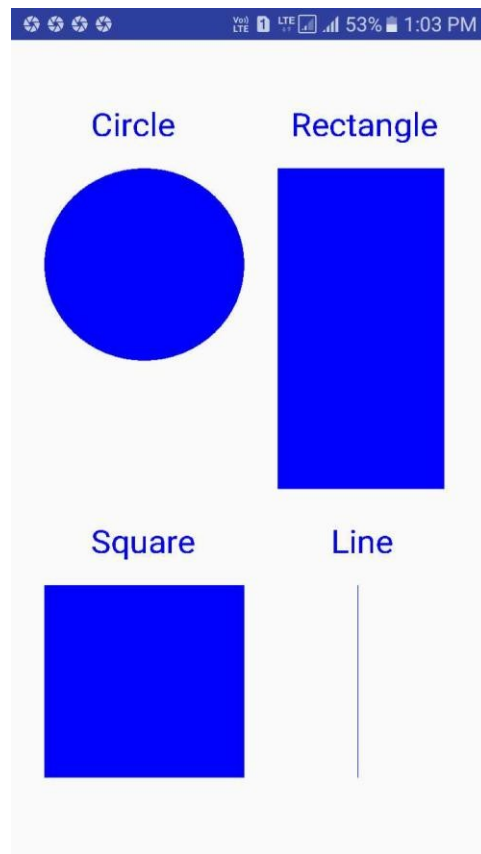
```
    //To draw a Square
    canvas.drawText("Squa
    re", 120, 800, paint);
    canvas.drawRect(50, 850, 350, 1150, paint);

    //To draw a Line
    canvas.drawText("Line", 480, 800, paint);
    canvas.drawLine(520, 850, 520, 1150, paint);
  }
}
```

Output:

Result:

       Thus a Simple Android Application that draws basic Graphical Primitives on the screen is developed and executed successfully.