

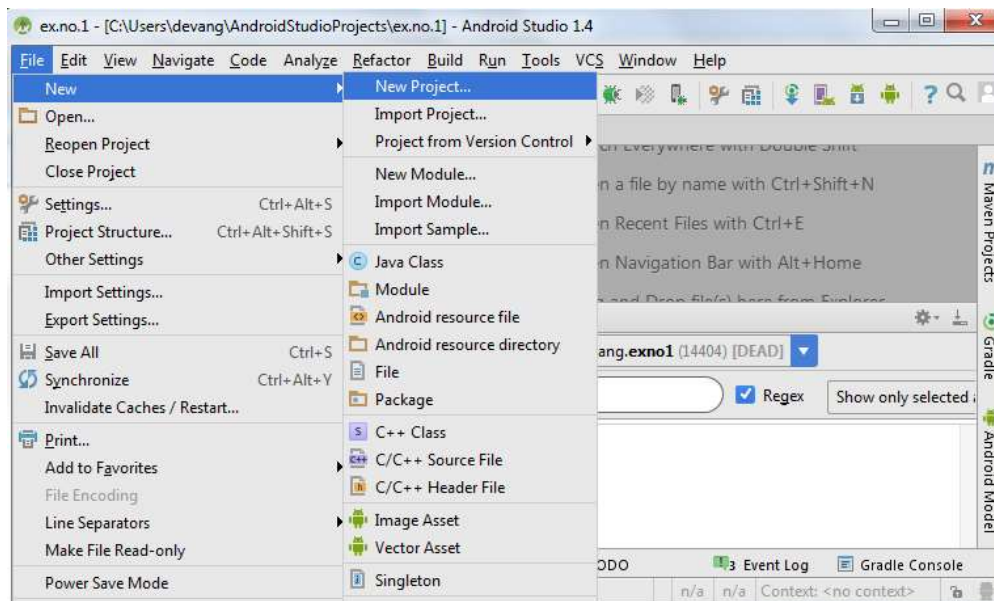
# Application that draws basic graphical primitives on the screen.

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

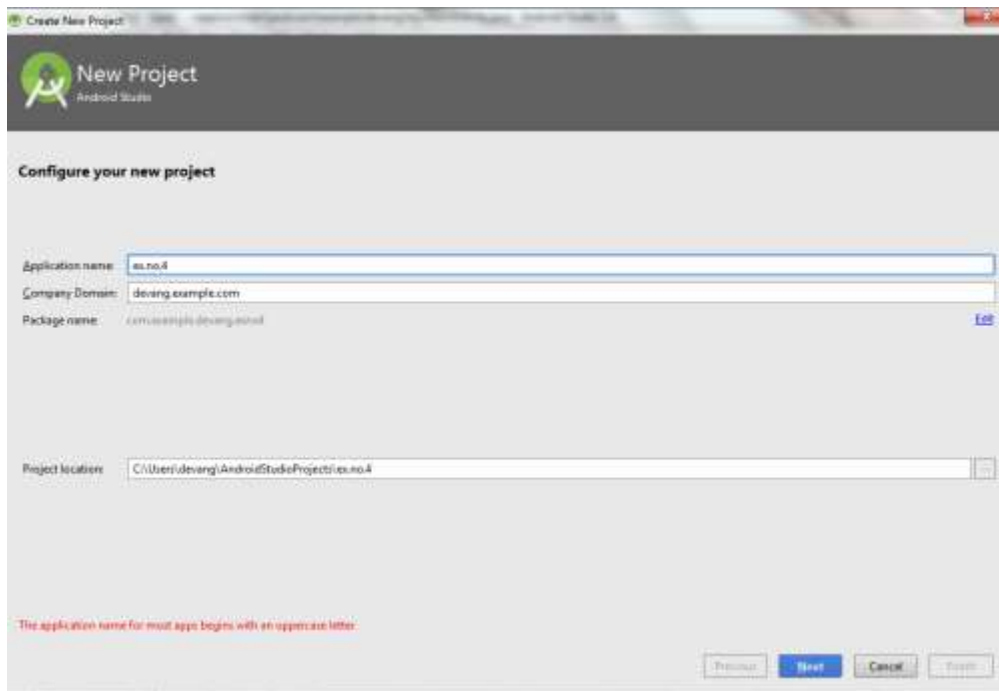
## Procedure:

### Creating a New project:

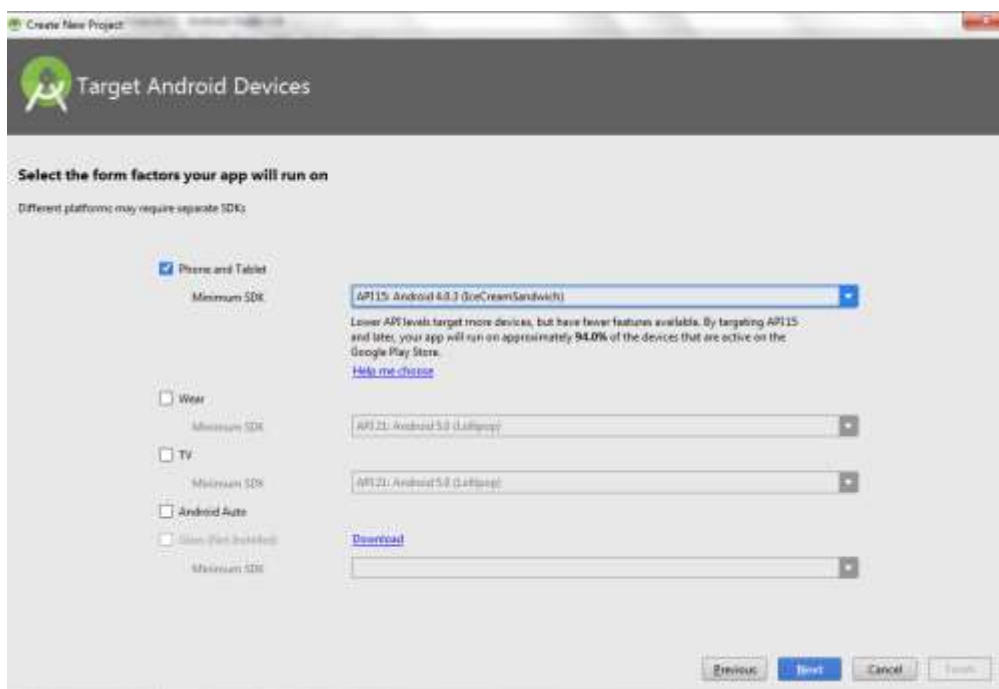
- Open Android Studio and then click on **File -> New -> New project**.



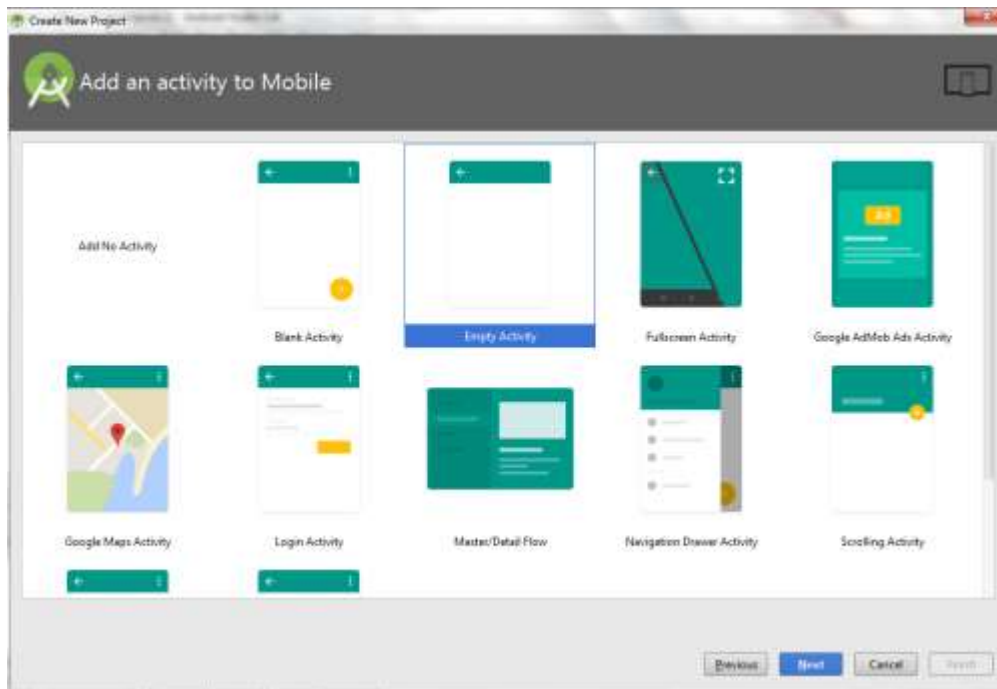
- Then type the Application name as “**ex.no.4**” and click **Next**.



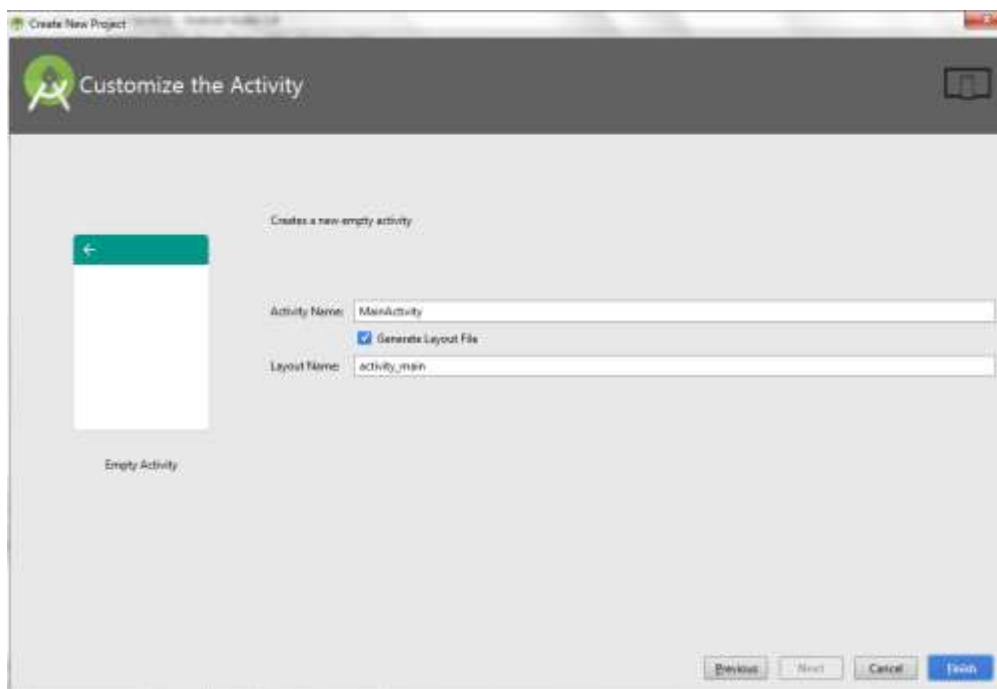
- Then select the **Minimum SDK** as shown below and click **Next**.



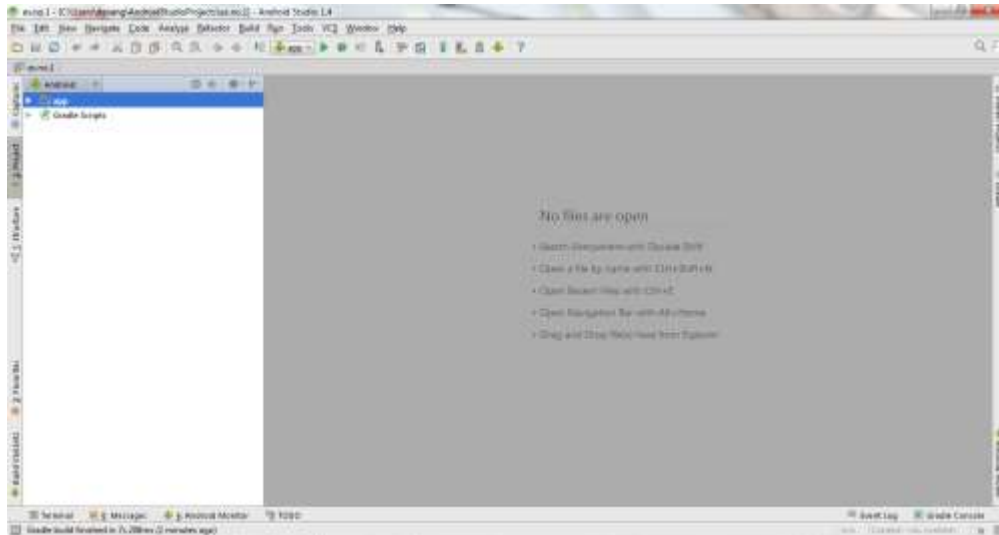
- Then select the **Empty Activity** and click **Next**.



- Finally click **Finish**.

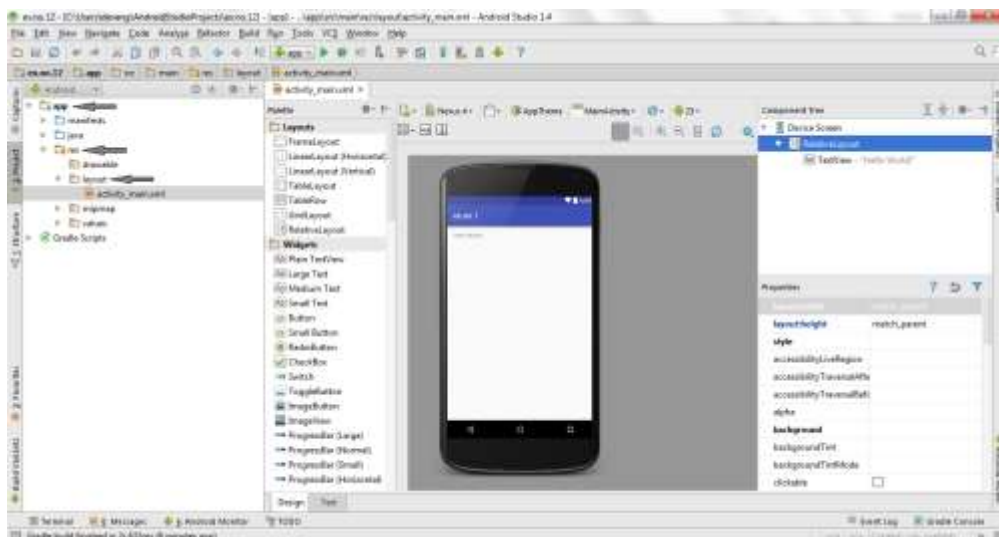


- It will take some time to build and load the project.
- After completion it will look as given below.

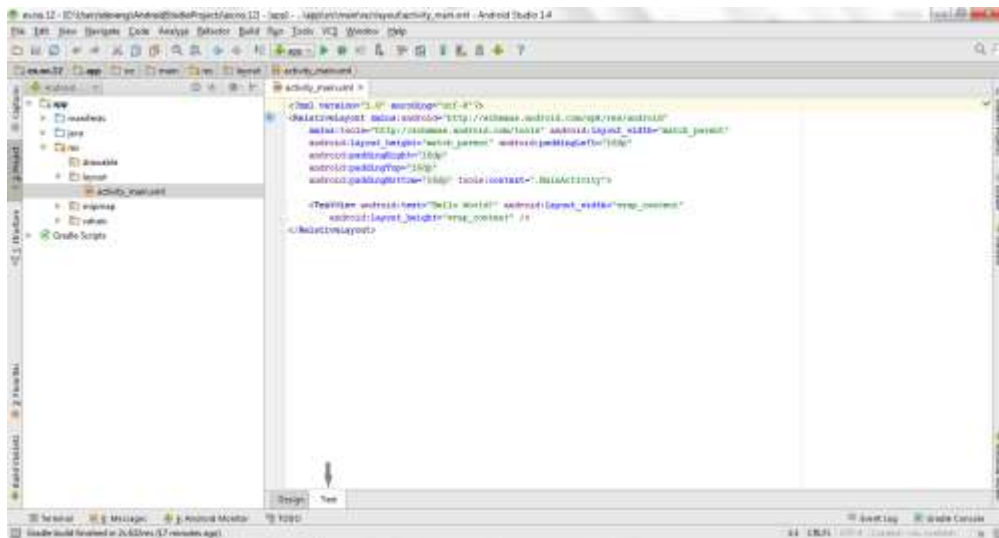


## Designing layout for the Android Application:

- Click on **app** -> **res** -> **layout** -> **activity\_main.xml**.



- Now click on **Text** as shown below.



- Then delete the code which is there and type the code as given below.

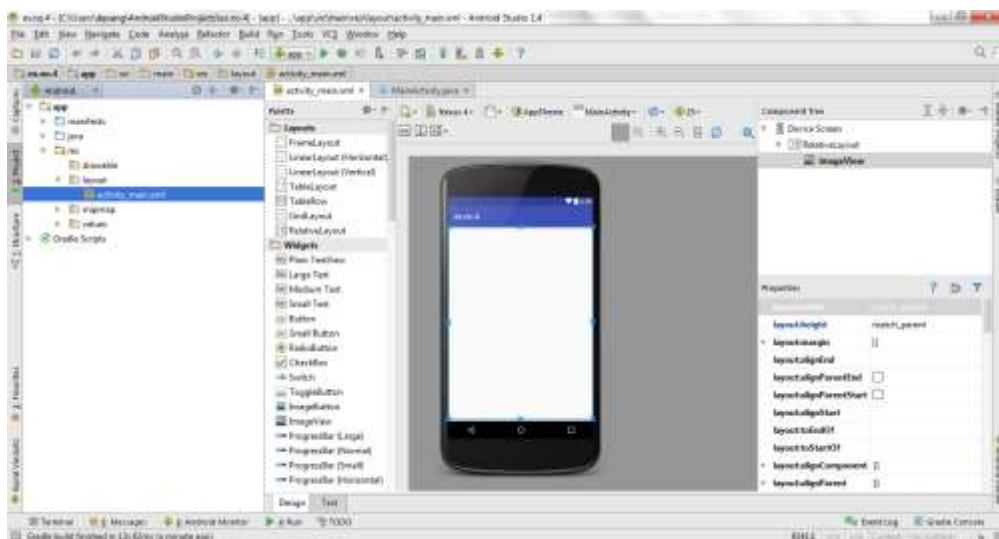
### Code for Activity\_main.xml:

```

1 <?xml version="1.0" encoding="utf-8"?>
2 <RelativeLayout
3     xmlns:android="http://schemas.android.com/apk/res/android"
4         android:layout_width="match_parent"
5         android:layout_height="match_parent">
6
7     <ImageView
8         android:layout_width="match_parent"
9         android:layout_height="match_parent"
10        android:id="@+id/imageView" />
11</RelativeLayout>

```

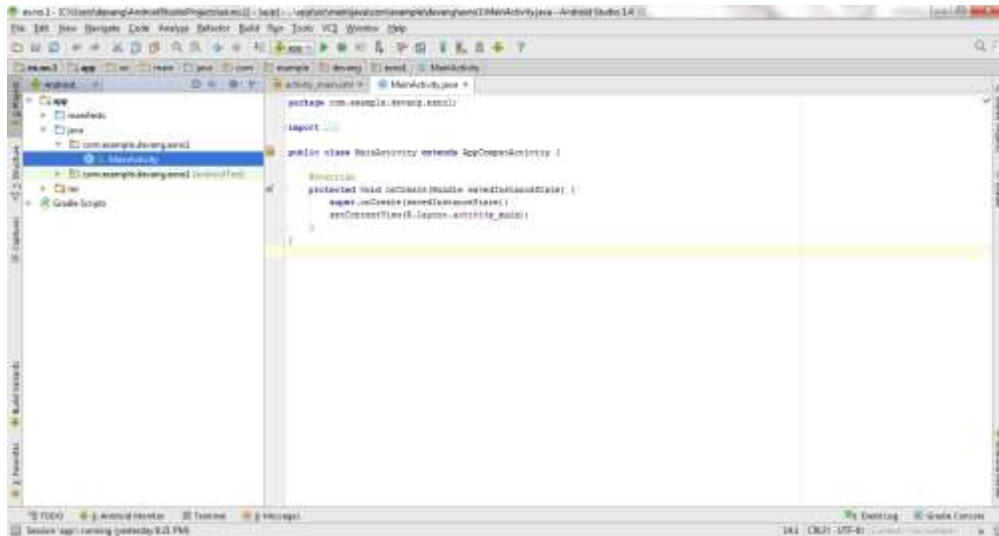
- Now click on **Design** and your application will look as given below.



- So now the designing part is completed.

## Java Coding for the Android Application:

- Click on **app -> java -> com.example.exno4 -> MainActivity**.



- Then delete the code which is there and type the code as given below.

### Code for MainActivity.java:

```
2
1 package com.example.exno4;
2
3 import android.app.Activity;
4 import android.graphics.Bitmap;
5 import android.graphics.Canvas;
6 import android.graphics.Color;
7 import android.graphics.Paint;
8 import android.graphics.drawable.BitmapDrawable;
9 import android.os.Bundle;
10 import android.widget.ImageView;
11
12 public class MainActivity extends Activity
13 {
14     @Override
15     public void onCreate(Bundle savedInstanceState)
16     {
17         super.onCreate(savedInstanceState);
18         setContentView(R.layout.activity_main);
19
20         //Creating a Bitmap
21         Bitmap bg = Bitmap.createBitmap(720, 1280,
22         Bitmap.Config.ARGB_8888);
23
24         //Setting the Bitmap as background for the ImageView
25         ImageView i = (ImageView) findViewById(R.id.imageView);
26         i.setBackgroundDrawable(new BitmapDrawable(bg));
27
28         //Creating the Canvas Object
29         Canvas canvas = new Canvas(bg);
```

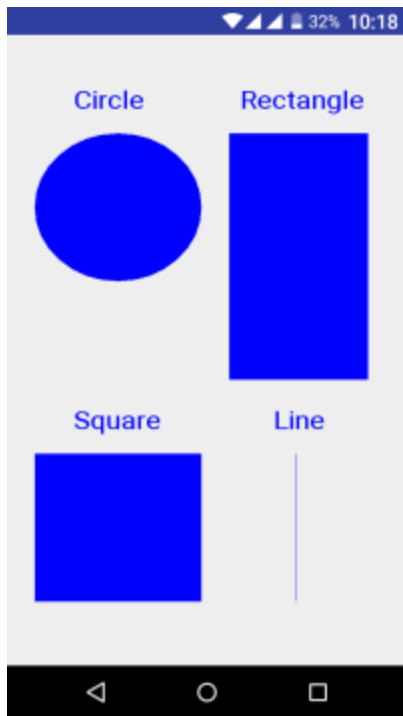
```

26      //Creating the Paint Object and set its color & TextSize
27      Paint paint = new Paint();
28      paint.setColor(Color.BLUE);
29      paint.setTextSize(50);
30
31      //To draw a Rectangle
32      canvas.drawText("Rectangle", 420, 150, paint);
33      canvas.drawRect(400, 200, 650, 700, paint);
34
35      //To draw a Circle
36      canvas.drawText("Circle", 120, 150, paint);
37      canvas.drawCircle(200, 350, 150, paint);
38
39      //To draw a Square
40      canvas.drawText("Square", 120, 800, paint);
41      canvas.drawRect(50, 850, 350, 1150, paint);
42
43      //To draw a Line
44      canvas.drawText("Line", 480, 800, paint);
45      canvas.drawLine(520, 850, 520, 1150, paint);
46  }
47  }
48
49
50
51

```

- So now the Coding part is also completed.
- Now run the application to see the output.

## Output:



## Result:

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