



EXPERIMENT NO. 7

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

Procedure:

Creating a new project:

1. Open Android Studio and then click on File -> New -> New project.
2. Then type the Application name as "ex.no.8" and click Next.
3. Then select the Minimum SDK and click Next.
4. Then select the Empty Activity and click Next.
5. Finally click Finish.

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

Designing layout for the Android Application:

1. Click on app -> res -> layout -> activity_main.xml.
2. Now click on Text.
3. Then delete the code which is there and type the code as given below.

Code for Activity_main.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>
```

4. Now click on Design. This completes design part.

Java Coding for the Android Application:

1. Click on app -> java -> com.example.exno8 -> MainActivity.
2. Then delete the code which is there and type the code as given below.

Code for MainActivity.java:

package com.example.exno7; import android.app.Activity; import android.graphics.Bitmap; import android.graphics.Canvas; import android.graphics.Color; import android.graphics.Paint;	color & TextSize Paint paint = new Paint(); paint.setColor(Color.BLUE); paint.setTextSize(50); //To draw a Rectangle
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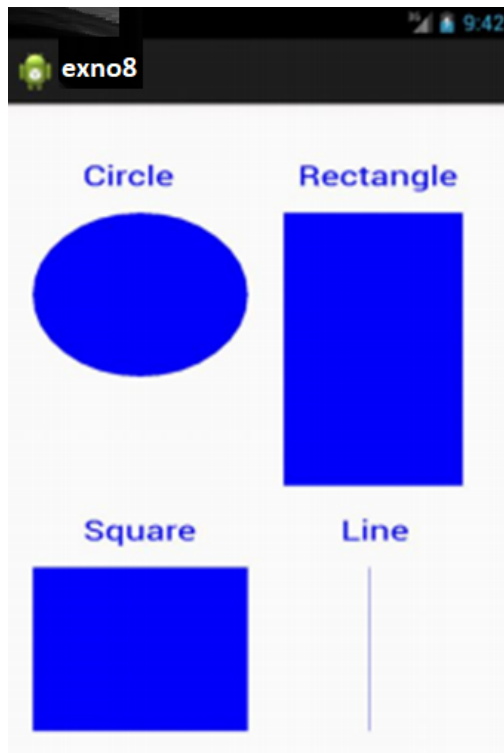
```
import
android.graphics.drawable.BitmapDrawable;
import android.os.Bundle;
import android.widget.ImageView;
public class MainActivity extends Activity
{
    @Override
    public void onCreate(Bundle
savedInstanceState)
    {
        super.onCreate(savedInstanceState);

        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

        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("Square", 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:





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Conclusion: Thus, we have successfully implemented an application that draws basic graphical primitives on the screen.