**Week 5: Design an application that draws basic graphical primitives: line, circle, square, rectangle etc., on screen**

# activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout

xmlns:android="<http://schemas.android.com/apk/res/androi> d"

xmlns:app[="http://schem](http://schemas.android.com/apk/res-auto)as[.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools="[http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">

<ImageView android:id="@+id/imageView" android:layout\_width="wrap\_content" android:layout\_height="487dp" android:layout\_alignParentStart="true" android:layout\_alignParentTop="true" android:layout\_alignParentEnd="true"

android:layout\_alignParentBottom="true" android:layout\_marginStart="54dp" android:layout\_marginTop="170dp" android:layout\_marginEnd="59dp" android:layout\_marginBottom="74dp"

android:src="@drawable/ic\_launcher\_foreground" />

</RelativeLayout>

# MainActivity.java

package com.example.week5;

import android.app.Activity; import android.os.Bundle; import android.graphics.Bitmap; import android.graphics.Canvas; import android.graphics.Color; import android.graphics.Paint;

import android.graphics.drawable.BitmapDrawable; import android.widget.ImageView;

public class MainActivity extends Activity {

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.*activity\_main*);

Bitmap bg = Bitmap.*createBitmap*(1080, 1920, Bitmap.Config.*ARGB\_8888*);

Canvas canvas = new Canvas(bg); canvas.drawColor(Color.*WHITE*);

ImageView i = (ImageView)

findViewById(R.id.*imageView*); i.setBackgroundDrawable(new

BitmapDrawable(getResources(), bg));

Paint paint = new Paint(); paint.setColor(Color.*BLACK*); paint.setTextSize(70);

canvas.drawText("Rectangle", 620, 200, paint);

canvas.drawRect(600, 300, 950, 1100, paint);

canvas.drawText("Circle", 150, 200, paint);

canvas.drawCircle(300, 550, 250, paint);

canvas.drawText("Square", 150, 1200, paint);

canvas.drawRect(100, 1300, 600, 1800, paint);

canvas.drawText("Line", 700, 1200, paint);

canvas.drawLine(750, 1300, 750, 1800, paint);

}

}