WEEK5:

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

METHOD1:

Note: No activity\_main.xml

**MainActivity.java**

package com.example.week5;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(new Myview(this));

}

}

Note : create Java class MyView in same package

MyView.java

package com.example.week5;

import android.content.Context;

import android.graphics.Canvas;

import android.graphics.Color;

import android.graphics.Paint;

import android.graphics.Rect;

import android.view.View;

public class Myview extends View {

private Rect rectangle;

private Paint paint;

public Myview(Context context) {

super(context);

int x = 50;

int y = 50;

int sideLength = 200;

// create a rectangle that we'll draw later

rectangle = new Rect(x, y, sideLength, sideLength);

paint = new Paint(); // create the Paint and set its color

paint.setColor(Color.GRAY);

}

@Override

protected void onDraw(Canvas canvas) {

paint.setStrokeWidth(20f);

canvas.drawColor(Color.CYAN);

canvas.drawRect(rectangle, paint);

canvas.drawCircle(400, 400, 200, paint);

canvas.drawLine(300,630,456,678,paint);

}

}

METHOD2:

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>

MainActivity.java

package com.example.myapplication;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.graphics.Bitmap;  
import android.graphics.Canvas;  
import android.graphics.Color;  
import android.graphics.Paint;  
import android.graphics.drawable.BitmapDrawable;  
import android.os.Bundle;  
import android.widget.ImageView;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 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("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);  
 }  
}

