

Lab Manual

Lab (8): 2D graphics



Visual Programming for Smart Devices lab

❖ Objectives:

create an android application using 2D graphics.

Task 1: Target exercise

```
package com.example.admin.myapplication;

import android.content.Context;
import android.util.AttributeSet;
import android.graphics.RectF;
import android.graphics.Canvas;
import android.graphics.Paint;
import android.view.*;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {
    TargetView targetView;

    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        targetView = new TargetView(this);

        setContentView(targetView);
    }

    class TargetView extends View

    {
        public TargetView(Context context)
        {
            super(context);
        }

        @Override

        protected void onDraw (Canvas canvas)
        {
            super.onDraw(canvas);

            Paint red = new Paint();
            red.setARGB(255, 255, 0, 0);
            Paint white = new Paint();
            white.setARGB(255, 255, 255, 255);
            int w = canvas.getWidth();
            int h = canvas.getHeight();
            for (int i = 0; i < 5; i++) {
                canvas.drawOval(new RectF(w * i / 10, h * i / 10, w * (10 - i) /
10, h * (10 - i) / 10),
                    i % 2 == 0 ? red : white);
            }
        }
    }
}
```

The output:



Assignments:

Write your java code to draw the following applications:

