Green University of Bangladesh
Department of Computer Science and Engineering(CSE)

Faculty of Sciences and Engineering
Semester: (Spring, Year:2022), B.Sc. in CSE (Day)

LAB REPORT NO: 03
Course Title: Mobile Application Development Lab
Course Code: CSE 426 Section: DB

Lab Experiment Name: Drawing Bangladesh Flag Using Graphical Primitives

Student Details

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Lab Date : 08/12/2022
Submission Date : 29/12/2022
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[For Teachers use only: Don't Write Anything inside this box]

Lab Report Status

Marks: …… **Signature:.....**
Comments:..... **Date:.....**

1. TITLE OF THE LAB EXPERIMENT

Drawing Bangladesh Flag Using Graphical Primitives.

2. OBJECTIVES/AIM

- To implement different types of graphical shapes like lines, squares, rectangles, circle with the help of Canvas class in android development.

3. PROCEDURE / ANALYSIS / DESIGN

Android has got visually appealing graphics. Android provides a huge set of 2D-drawing APIs that allows the creation of graphics. Android graphics provides low level graphics tools such as canvases, color, filters, points and rectangles which handle drawing to the screen directly. The Android framework provides a set of 2D-DRAWING APIs which allows users to provide their own custom graphics onto a canvas or to modify existing views to customize their look and feel. The android.graphics.Canvas can be used to draw graphics in android. It provides methods to draw oval, rectangle, picture, text, line etc. Some of the important methods of Canvas Class are as follows- drawText(), drawRoundRect(), drawCircle(), drawRect() etc. These methods are used in the onDraw() method to create customized user interfaces. The android.graphics.Paint class is used with canvas to draw objects. It holds the information of color and style. In this experiment, we are going to display 2D graphics in android.

4. IMPLEMENTATION

- **MainActivity.java**

```
package com.example.labthree;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.content.Context;
import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.view.View;

public class MainActivity extends AppCompatActivity {
    DemoView dv;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        dv = new DemoView(this);
        setContentView(dv);
    }
```

```
    private class DemoView extends View {
        public DemoView(Context context) {
            super(context);
        }
        protected void onDraw(Canvas canvas) {
            super.onDraw(canvas);
            Paint ob = new Paint();
            ob.setStyle(Paint.Style.FILL);
            ob.setColor(Color.WHITE); //set the background color
            canvas.drawPaint(ob);
            ob.setColor(Color.GRAY);

            ob.setColor(Color.YELLOW);
            canvas.drawCircle(400, 1000, 200, ob);

            ob.setColor(Color.RED);
            canvas.drawCircle(350, 920, 20, ob);
            ob.setColor(Color.RED);
            canvas.drawCircle(450, 920, 20, ob);
            ob.setColor(Color.BLACK);
            canvas.drawRect(350, 1040, 450, 1060, ob);


            ob.setColor(Color.GREEN);
            canvas.drawRect(100, 100, 600, 400, ob);
            ob.setColor(Color.RED);
            canvas.drawCircle(350, 250, 100, ob);
            ob.setColor(Color.BLACK);
            canvas.drawRect(95, 100, 100, 1000, ob);
        }
    }
}
```

5. TEST RESULT / OUTPUT

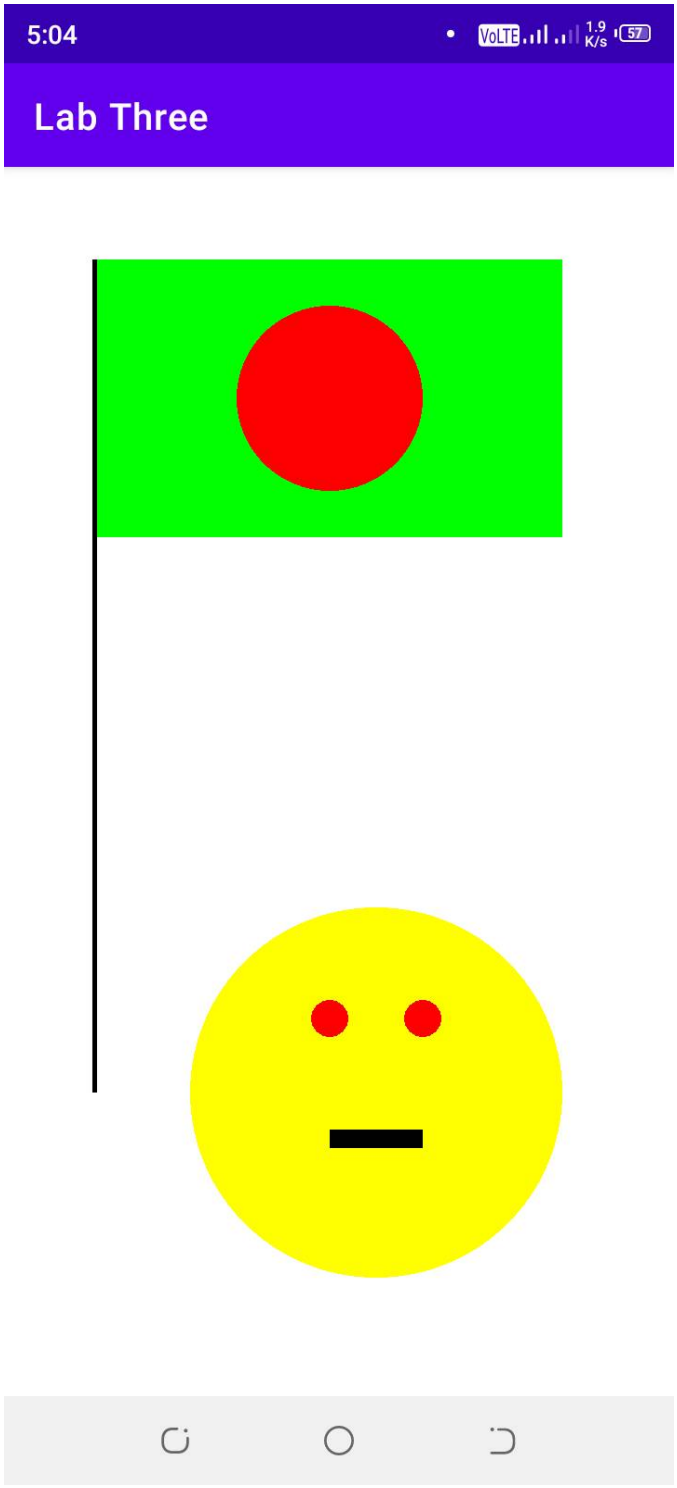

Figure-5.1: Output of the project

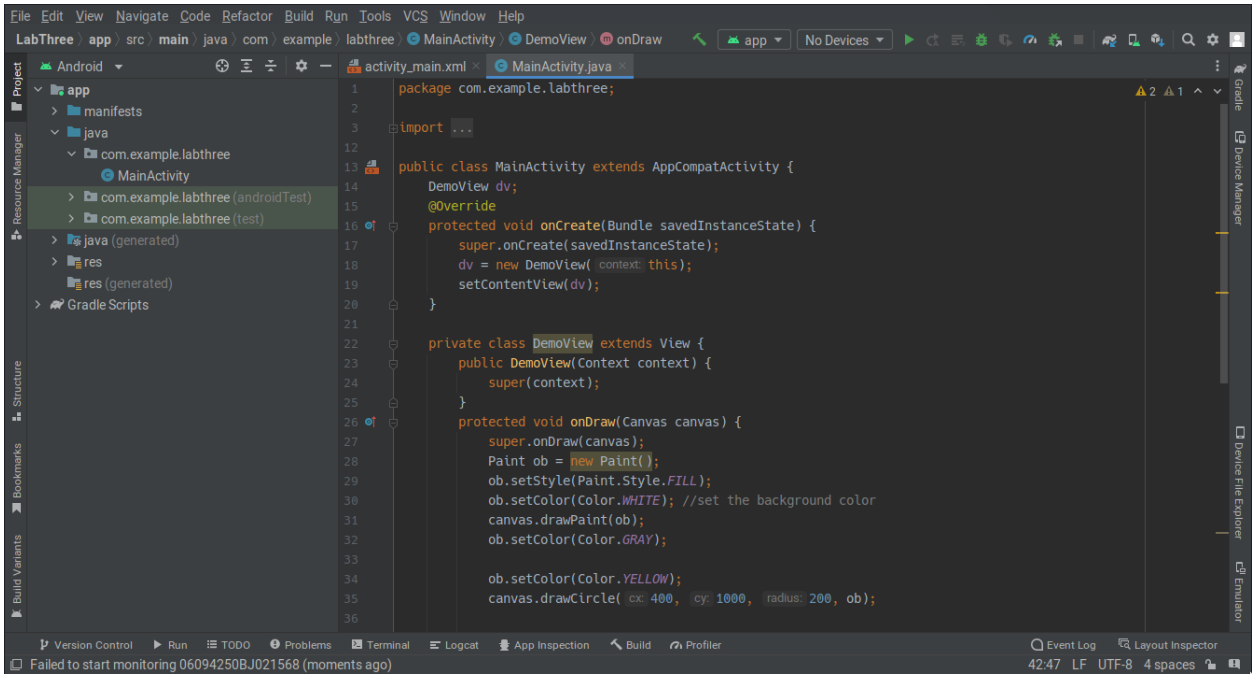

Figure-5.2: Project Environment

6. ANALYSIS AND DISCUSSION

From this experiment we learn about how to draw some basic graphical shapes in android studio with the help of canvas class. This experiment is designed in a way to teach the student about drawing basic 2D graphics in android Development.