

**Develop a canvas to draw different shapes and to fill the shapes with different colors.**

### **Main Activity.xml**

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

<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

### **Main Activity.java**

```
package com.example.shape;

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 com.example.shape.CustomView(this));
    }
}
```

### **CustomView.Java**

```
package com.example.shape;
```

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

```
class CustomView extends View {
    private Rect rectangle;
    private Paint paint, p1;

    public CustomView(Context context) {
        super(context);
        int x = 100;
        int y = 50;
```

```

int width = 1000;

int height = 500;

// create a rectangle that we'll draw later
rectangle = new Rect(x, y, width, height);

// create the Paint and set its color
paint = new Paint();
paint.setColor(Color.GREEN);

p1 = new Paint();
p1.setColor(Color.WHITE);
}

@Override
protected void onDraw(Canvas canvas) {
    canvas.drawColor(Color.BLACK);

    canvas.drawRect(rectangle, paint);

    canvas.drawCircle(550, 270, 150, p1);

    RectF oval = new RectF(300, 700, 800, (float) (520 + 520 / 1.5));

    canvas.drawArc(oval, 180, 180, false, p1);
}

```

## Screenshot



