

Ex. No. : 03

Date:

Register No.: 221701029

Name: Keerthana V

Graphical Primitives

Aim

Develop an android application to draw the circle, ellipse, rectangle and some text using Android Graphical primitives.

Procedure:

1. Create a new Android project in Android Studio.
2. Create a custom View class to handle drawing operations.
3. Override the onDraw() method in the custom View class.
4. Use Canvas and Paint classes to draw circle, ellipse, rectangle, and text.
5. Set different colors and styles for each shape.
6. Add the custom View to the activity_main.xml layout.
7. Run the application and display the drawn shapes and text on the screen.

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Exp3"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```



Activity_main.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:id="@+id/main"
    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_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

MainActivity.kt

```
package com.example.exp3;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

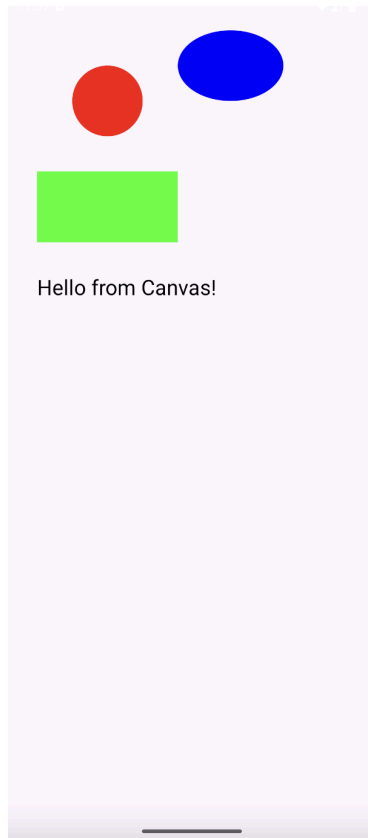
public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        MyCanvas myCanvas = new MyCanvas(this);
        setContentView(myCanvas);
    }
}
```



Output



Result:

The application successfully draws a circle, ellipse, rectangle, and text using Android graphical primitives.