

PART - A

LAB - 05 COUNTER APP

activity_main.xml

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

    <Button
        android:id="@+id/btnStart"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="144dp"
        android:layout_marginBottom="269dp"
        android:text="@string/start"
        android:textSize="25sp"
        android:textStyle="bold"
        android:onClick="startCounting"
    />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="71dp"
        android:layout_marginBottom="483dp"
        android:text="@string/counter_application"
        android:textColor="@color/black"
        android:textSize="30sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/txtCounter"
        android:layout_width="332dp"
        android:layout_height="63dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
```

```
android:layout_marginEnd="39dp"
android:layout_marginBottom="375dp"
android:ems="10"
android:hint="@string/count_value"
android:inputType="textPersonName"
android:textAlignment="center"
android:textColorHint="#0004FF"
android:textSize="35sp" />
```

```
<Button
    android:id="@+id/btnStop"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="151dp"
    android:layout_marginBottom="177dp"
    android:text="@string/stop"
    android:textSize="25sp"
    android:textStyle="bold"
    android:onClick="stopCounting"
/>
```

```
</RelativeLayout>
```

MainActivity.java

```
package com.counterapp;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.os.Handler;
import android.view.View;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    TextView txtView;
    int count = 0;
    Handler handler = new Handler();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        txtView = findViewById(R.id.txtCounter);
    }

    public void startCounting(View view) {
```

```
        count = 0;
        handler.postDelayed(countThread, 500);
    }

    private Runnable countThread = new Runnable() {
        @Override
        public void run() {
            txtView.setText(""+count);
            count++;
            handler.postDelayed(countThread, 500);
        }
    };

    public void stopCounting(View view) {
        handler.removeCallbacks(countThread);
    }
}
```