Experiment No:_____

Title of the Experiment:_____

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Design:

Activity_main.xml

```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"
    android:background="#F44336"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="#CDDC39"
        android:text="COUNTER APPLICATION"
        android:textColor="#00796B"
        android:textSize="34sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.47"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.049" />

    <TextView
        android:id="@+id/countvalue"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="#03A9F4"
        android:text="0"
        android:textColor="#004D40"
        android:textSize="34sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.349" />

    <Button
        android:id="@+id/start"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="START"
        android:textSize="24sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.627" />

    <Button
        android:id="@+id/stop"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="STOP"
        android:textSize="24sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.784" />
</androidx.constraintlayout.widget.ConstraintLayout>
package com.example.counterapp;
```

```java
MainActivity.java

package com.example.counterapp;


import androidx.appcompat.app.AppCompatActivity;
import android.widget.Button;
import android.widget.TextView;
import android.view.View;
import android.os.Handler;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {
    Button btnstart,btnstop;
    TextView txtcounter;
    int i=1;

    Handler customHandler=new Handler();


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btnstart=findViewById(R.id.start);
        btnstop=findViewById(R.id.stop);
        txtcounter=findViewById(R.id.countvalue);
        btnstart.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                customHandler.postDelayed(updateTimerThread,0);

            }
        });
        btnstop.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                customHandler.removeCallbacks(updateTimerThread);

            }
        });
    }
    private final Runnable updateTimerThread=new Runnable() {
        @Override
        public void run() {
            txtcounter.setText(""+i);
            customHandler.postDelayed(this,5000);
            i++;
        }
    };
}
```