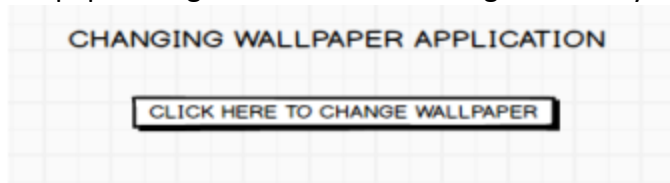


PROGRAM 4: Develop an application to set an image as wallpaper. On click of a button, the wallpaper image should start to change randomly every 30 seconds.



FILE NAME: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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="387dp"
        android:layout_height="70dp"
        android:text="CHANGING WALLPAPER APPLICATION"
        android:textAlignment="center"
        android:textColor="#F44336"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.666"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.177" />

    <Button
        android:id="@+id/btn_wall"
        android:layout_width="266dp"
        android:layout_height="102dp"
        android:background="#FF9800"
        android:text="CLICK HERE TO WALL PAPER CHANGE"
        android:textAlignment="center"
        android:textSize="24sp"
        android:textStyle="bold"
        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="0.523" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

FILE NAME: MainActivity.java

```

package com.example.wallpaper;

import androidx.appcompat.app.AppCompatActivity;

import android.app.WallpaperManager;
import android.graphics.BitmapFactory;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import java.io.IOException;
import java.util.Random;
import java.util.Timer;
import java.util.TimerTask;

public class MainActivity extends AppCompatActivity implements
View.OnClickListener {
    Button btn;
    boolean running;
    int[] ia=new
int[] {R.drawable.imag1,R.drawable.imag2,R.drawable.imag3,R.drawa
ble.imag4,R.drawable.imag5};

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn = (Button) findViewById(R.id.btn_wall);
        btn.setOnClickListener(this);
    }

    @Override
    public void onClick(View view) {
        if (!running) {
            new Timer().schedule(new Mytimer(), 0, 3000);
            running=true;
        }
    }
}

```

```

    }
}

private class Mytimer extends TimerTask {
    @Override
    public void run() {
        try {
            WallpaperManager wallpaperManager =
WallpaperManager.getInstance(getApplicationContext());
            Random random = new Random();

wallpaperManager.setBitmap(BitmapFactory.decodeResource(getResources(),
ia[random.nextInt(5)]));

        } catch (IOException e) { }
    }
}
}

```

