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.

**XML Part: activity\_main.xml**

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

<LinearLayout 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:orientation="vertical"

tools:context=".MainActivity">

<TextView

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:text="Wall Paper Changing Application"

android:textAlignment="center"

android:textSize="30sp"

android:textColor="@color/design\_default\_color\_primary"

/>

<Button

android:layout\_marginTop="100dp"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/wp"

android:text="changewallpaper"

android:textSize="20sp"

android:onClick="ChangeWallpaper"

/>

</LinearLayout>

**Java Coding Part: MainActivity.java**

package com.example.labpgm4;

import androidx.appcompat.app.AppCompatActivity;

import android.app.WallpaperManager;

import android.graphics.Bitmap;

import android.graphics.drawable.BitmapDrawable;

import android.graphics.drawable.Drawable;

import android.os.Bundle;

import android.view.View;

import java.io.IOException;

import java.util.Timer;

import java.util.TimerTask;

public class MainActivity extends AppCompatActivity {

Timer mytimer;

Drawable drawable;

WallpaperManager wpm;

int next=1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

else if(next==3)

{

drawable=getResources().getDrawable(R.drawable.three);

next=4;

}

else if(next==4)

{

drawable=getResources().getDrawable(R.drawable.four);

next=5;

}

else if(next==5)

{

drawable=getResources().getDrawable(R.drawable.five);

next=6;

}

else if(next==6)

{

drawable=getResources().getDrawable(R.drawable.six);

next=7;

}

else if(next==7)

{

drawable=getResources().getDrawable(R.drawable.seven);

next=8;

}

else if(next==8)

{

drawable=getResources().getDrawable(R.drawable.eight);

next=9;

}

else if(next==9)

{

drawable=getResources().getDrawable(R.drawable.nine);

next=10;

}

else if(next==10)

{

drawable=getResources().getDrawable(R.drawable.ten);

next=1;

}

Bitmap img=((BitmapDrawable)drawable).getBitmap();

try {

wpm.setBitmap(img);

} catch (IOException e) {

e.printStackTrace();

}

}

},30000,5000);

}

}

setContentView(R.layout.activity\_main);

mytimer=new Timer();

wpm=WallpaperManager.getInstance(this);

}

public void changewallpaper(View v)

{

setWallPaper();

}

public void setWallPaper()

{

mytimer.schedule(new TimerTask() {

@Override

public void run() {

if(next==1)

{

drawable=getResources().getDrawable(R.drawable.one);

next=2;

}

else if(next==2)

{

drawable=getResources().getDrawable(R.drawable.two);

next=3;

}