

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;
            }
        }
    });
}
```