

PART - A

LAB - 04 WALLPAPER CHANGER 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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="31dp"
        android:layout_marginBottom="385dp"
        android:text="@string/wallpaper_changer_app"
        android:textAlignment="center"
        android:textColor="@color/black"
        android:textSize="33sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="46dp"
        android:layout_marginBottom="249dp"
        android:text="@string/click_to_change_wallpaper"
        android:textSize="20sp"
        android:onClick="changeWallpaper"
    />

</RelativeLayout>
```

MainActivity.java

```
package com.wallpaperchangerapp;

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 myTime;
    Drawable drawable;
    WallpaperManager wpMan;
    int nextImg = 1;

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

        myTime = new Timer();
        wpMan = WallpaperManager.getInstance(this);
    }

    public void changeWallpaper(View view) {
        setWallpaper();
    }

    private void setWallpaper() {
        myTime.schedule(new TimerTask() {
            @Override
            public void run() {
                if (nextImg == 1){
                    drawable = getResources().getDrawable(R.drawable.img1);
                    nextImg = 2;
                } else if (nextImg == 2){
                    drawable = getResources().getDrawable(R.drawable.img2);
                    nextImg = 3;
                } else if (nextImg == 3){
                    drawable = getResources().getDrawable(R.drawable.img3);
                    nextImg = 4;
                } else if (nextImg == 4){
                    drawable = getResources().getDrawable(R.drawable.img4);
                }
            }
        }, 0, 1000);
    }
}
```

```

        nextImg = 5;
    } else if (nextImg == 5){
        drawable = getResources().getDrawable(R.drawable.img5);
        nextImg = 6;
    } else {
        drawable = getResources().getDrawable(R.drawable.img6);
        nextImg = 1;
    }
    Bitmap imgBmp = ((BitmapDrawable)drawable).getBitmap();
    try {
        wpMan.setImageBitmap(imgBmp);
    } catch (IOException e) {
        e.printStackTrace();
    }
}
}, 30000, 2000);
}
}
}

```

AndroidManifest.xml

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    package="com.wallpaperchangerapp">

    <uses-permission android:name="android.permission.SET_WALLPAPER" />

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.WallpaperChangerApp"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>

```

Note:

- Paste wallpaper images in res → drawable folder (or) drawablev24 folder