

Practical: 8

AIM- What is Frame by Frame Animation? What is Twin Animation? How can you achieve edge-to-edge content display in your app? Create Android Application to demonstrate Frame by frame animation and splash screen to demonstrate twin animation according to below instructions.

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Practical-8

AIM:- What is Frame by Frame Animation? What is Twin Animation? How can you achieve edge-to-edge content display in your app? Create Android Application to demonstrate Frame by frame animation and splash screen to demonstrate twin animation according to below instructions.

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">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintBottom_toBottomOf="parent">
        <androidx.core.widget.NestedScrollView
            android:layout_width="match_parent"
            android:layout_height="match_parent">
            <com.google.android.material.card.MaterialCardView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_marginTop="15dp"
                android:layout_marginBottom="15dp"
                android:layout_marginStart="10dp"
                android:layout_marginEnd="10dp"
                app:cardCornerRadius="7dp"
                app:cardElevation="7dp">
                <LinearLayout
                    android:layout_width="match_parent"
                    android:layout_height="match_parent"
                    android:orientation="vertical">
                    <ImageView
                        android:id="@+id/alarmImages"
```

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```
        android:layout_width="match_parent"
        android:layout_height="742px" />
<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Create Alarm Time"
    android:textSize="17sp"
    android:textStyle="bold"
    android:layout_marginTop="10dp"
    android:layout_marginStart="10dp"/>
<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/alarm_desc"
    android:layout_marginTop="10dp"
    android:paddingEnd="10dp"
    android:layout_marginStart="10dp"/>
<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/check_curTime"
    android:layout_marginTop="10dp"
    android:paddingEnd="10dp"
    android:layout_marginStart="10dp"/>
<ImageView
    android:id="@+id/heartImages"
    android:layout_width="27dp"
    android:layout_height="27dp"
    android:layout_marginTop="2dp"
    android:layout_marginEnd="25dp"
    android:layout_gravity="right" />
<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginStart="10dp"
    android:layout_marginTop="15dp"
    android:layout_marginBottom="10dp">
    <com.google.android.material.button.MaterialButton
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:cornerRadius="20sp"
        android:text="Create Alarm"
        android:textSize="10sp"
        app:icon="@drawable/ic_baseline_alarm_add_24"
        app:iconSize="20sp"
        android:backgroundTint="@color/teal_200"/>
    <com.google.android.material.button.MaterialButton
```

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```
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="7dp"
        app:cornerRadius="20sp"
        android:text="Create Alarm"
        android:textSize="10sp"
        app:icon="@drawable/ic_baseline_alarm_off_24"
        app:iconSize="20sp"
        android:textColor="@color/teal_200"
        android:backgroundTint="@color/white"
        app:iconTint="@color/teal_200"/>
    </LinearLayout>
</LinearLayout>
</com.google.android.material.card.MaterialCardView>
</androidx.core.widget.NestedScrollView>
</LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
activity_Splash.xml:-
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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=".SplashActiviy"
    android:background="@drawable/gradientrectangle">
    <ImageView
        android:id="@+id/image"
        android:layout_width="wrap_content"
        android:layout_height="120dp"
        android:layout_gravity="center"/>
</FrameLayout>
```

MainActivity.kt:-

```
package com.example.madpractical8_20012011055
```

```
import android.graphics.drawable.AnimationDrawable
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.view.animation.Animation
import android.view.animation.AnimationUtils
import android.widget.ImageView
```

```
class MainActivity : AppCompatActivity(), Animation.AnimationListener {
    lateinit var alarmimg : ImageView
    lateinit var alarmimg_frameByFrameAnimation : AnimationDrawable
    lateinit var alarmimgAnimation : Animation
```

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```
lateinit var heartimgs : ImageView
lateinit var heart_frameByFrameAnimation : AnimationDrawable
lateinit var heartAnimation : Animation
override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContentView(R.layout.activity_main)
    alarmimgs = findViewById(R.id.alarmImages)
    alarmimgs.setBackgroundResource(R.drawable.alarm_image_list)
    heartimgs = findViewById(R.id.heartImages)
    heartimgs.setBackgroundResource(R.drawable.heart_image_list)
    alarmimg_frameByFrameAnimation = alarmimgs.background as AnimationDrawable
    heart_frameByFrameAnimation = heartimgs.background as AnimationDrawable
    alarmimgAnimation = AnimationUtils.loadAnimation(this, R.anim.alarm_animation)
    alarmimgAnimation.setAnimationListener(this)
    heartAnimation = AnimationUtils.loadAnimation(this, R.anim.heart_animation)
    alarmimgAnimation.setAnimationListener(this)
}
override fun onWindowFocusChanged(hasFocus: Boolean) {
    super.onWindowFocusChanged(hasFocus)
    if(hasFocus){
        alarmimg_frameByFrameAnimation.start()
        alarmimgs.startAnimation(alarmimgAnimation)
        heart_frameByFrameAnimation.start()
        heartimgs.startAnimation(heartAnimation)
    }
}
override fun onAnimationStart(p0: Animation?) {
}
override fun onAnimationEnd(p0: Animation?) {
}
override fun onAnimationRepeat(p0: Animation?) {
}
}
```

SplashActivity.kt:-

```
package com.example.madpractical8_20012011055
```

```
import android.content.Intent
import android.graphics.drawable.AnimationDrawable
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.view.animation.Animation
import android.view.animation.AnimationUtils
import android.widget.ImageView
```

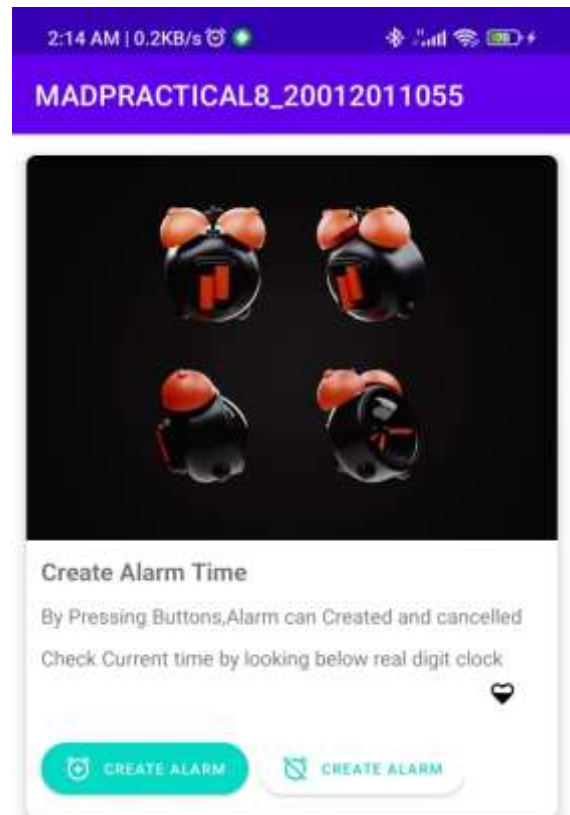
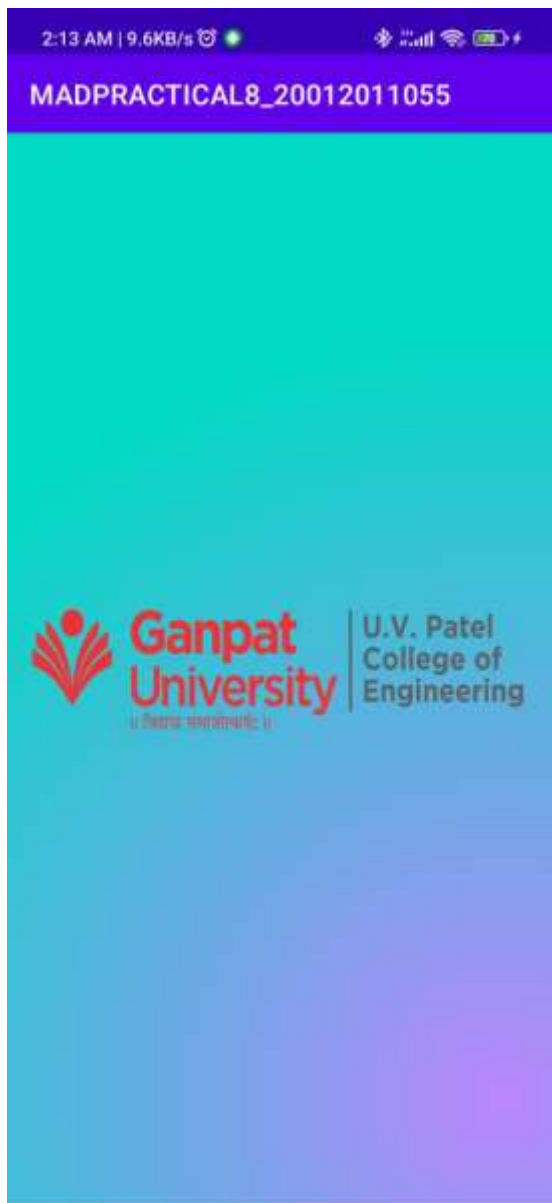
```
class SplashActiviy : AppCompatActivity(),Animation.AnimationListener {
    lateinit var guni_image : ImageView
    lateinit var logo_frambyframanimeton : AnimationDrawable
```

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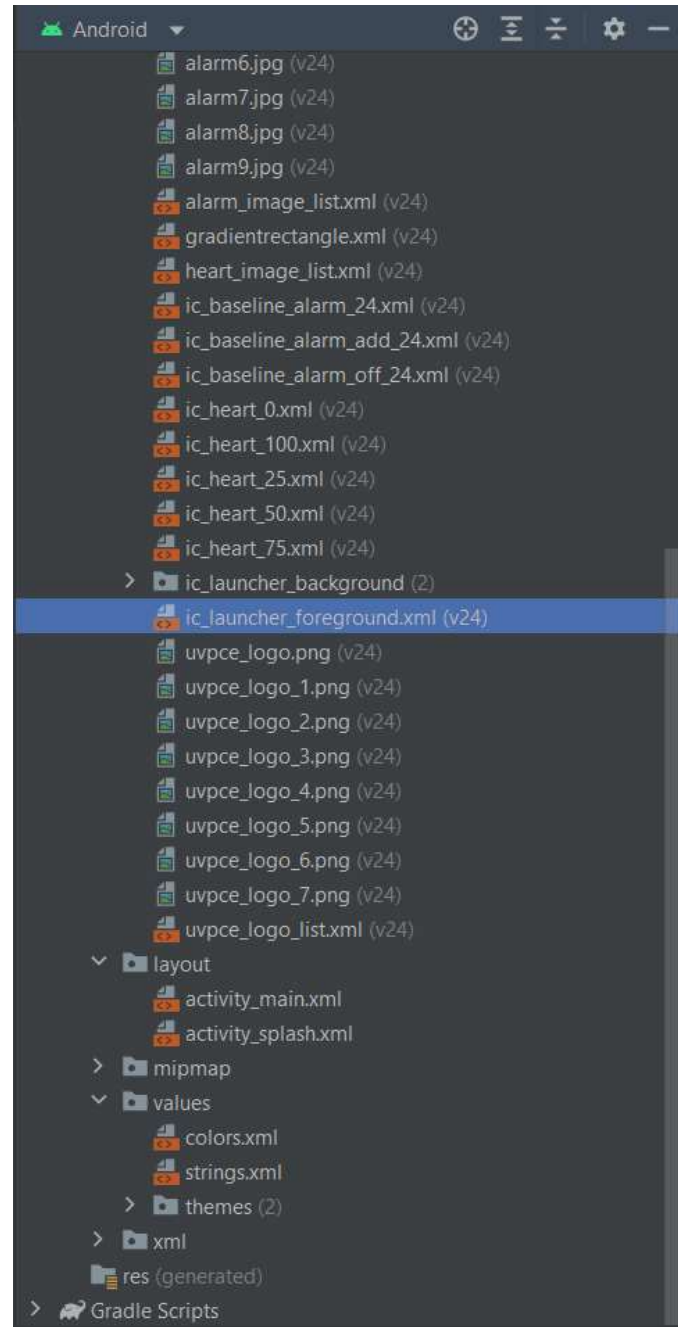
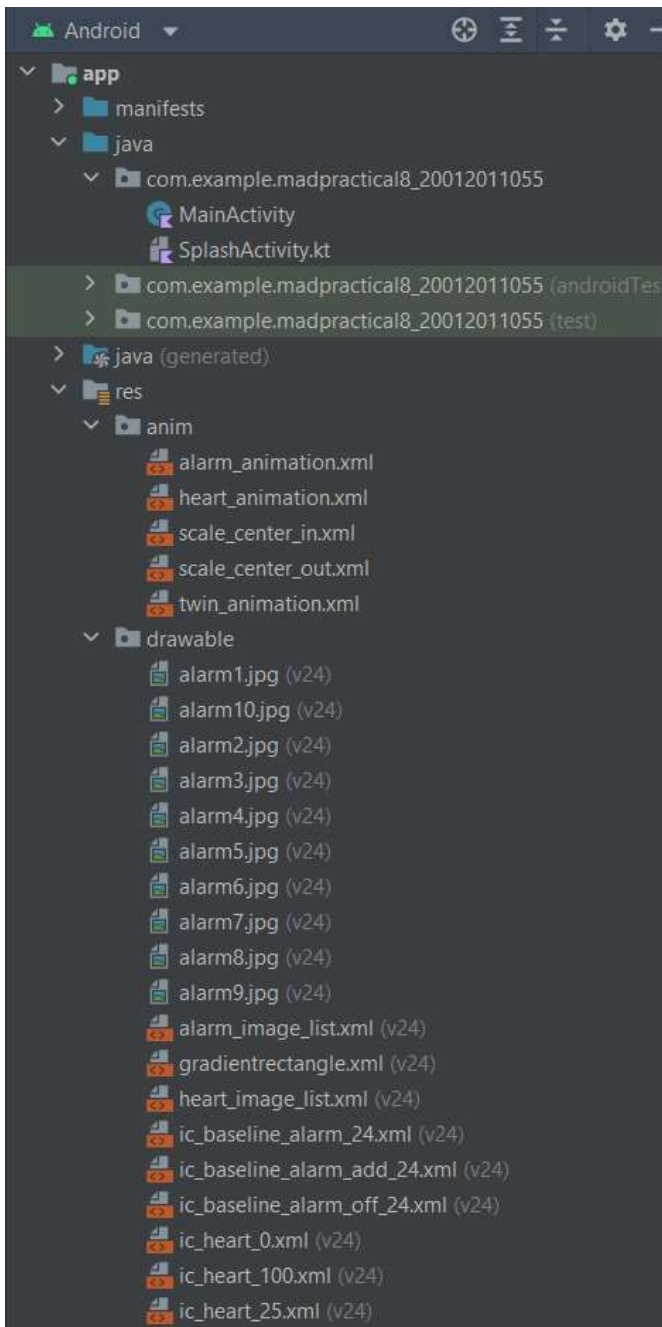
```
lateinit var twinanimation : Animation
override fun onCreate(savedInstanceState: Bundle?) {
    super.onCreate(savedInstanceState)
    setContentView(R.layout.activity_splash)
    guni_image = findViewById(R.id.image)
    guni_image.setBackgroundResource(R.drawable.uvpce_logo_list)
    logo_frambyfranimation = guni_image.background as AnimationDrawable
    twinanimation = AnimationUtils.loadAnimation(this,R.anim.twin_animation)
    twinanimation.setAnimationListener(this)
}
override fun onWindowFocusChanged(hasFocus: Boolean) {
    super.onWindowFocusChanged(hasFocus)
    if (hasFocus){
        logo_frambyfranimation.start()
        guni_image.startAnimation(twinanimation)
    }
}
override fun onAnimationStart(p0: Animation?) {
}
override fun onAnimationEnd(p0: Animation?) {
    Intent(this,MainActivity::class.java).also {
        startActivity(it)
        overridePendingTransition(R.anim.scale_center_in,R.anim.scale_center_out)
        finish()
    }
}
override fun onAnimationRepeat(p0: Animation?) {
}
}
```

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Output: -



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AndroidManifests.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.example.madpractical8_20012011055">

    <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.MADPRACTICAL8_20012011055"
        tools:targetApi="31">
        <activity
            android:name="com.example.madpractical8_20012011055.MainActivity"
            android:exported="false" />
        <activity
            android:name=".SplashActiviy"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

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

</manifest>
```