

# Practical: 9

**AIM - Create Android Application to demonstrate Frame by frame animation and splash screen to demonstrate twin animation according to below instructions.**

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### MainActivity.kt

```
package com.example.mad_pracatical_9_21012021003

import android.graphics.drawable.AnimationDrawable
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.ImageView
import com.example.mad_pracatical_9_21012021003.R

class MainActivity : AppCompatActivity() {

    lateinit var alarmanimation : AnimationDrawable
    lateinit var heartanimation : AnimationDrawable

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        val alarm : ImageView = findViewById(R.id.alarm)
        alarm.setBackgroundResource(R.drawable.alarm_animation_list)
        alarmanimation = alarm.background as AnimationDrawable

        val heart : ImageView = findViewById(R.id.heart)
        heart.setBackgroundResource(R.drawable.heart_animation_list)
        heartanimation = heart.background as AnimationDrawable
    }

    override fun onWindowFocusChanged(hasFocus: Boolean) {
        super.onWindowFocusChanged(hasFocus)
        if (hasFocus) {
            alarmanimation.start()
            heartanimation.start()
        }
        else {
            alarmanimation.stop()
            heartanimation.stop()
        }
    }
}
```

### SplashActivity.kt

```
package com.example.mad_pracatical_9_21012021003

import android.annotation.SuppressLint
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 com.example.mad_practical_9_21012021003.R
import android.widget.ImageView
```

```
class SplashActivity : AppCompatActivity(), Animation.AnimationListener {

    lateinit var imageanimation : AnimationDrawable
    lateinit var logoimage : ImageView
    lateinit var logoanimation : Animation

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_splash)
        logoimage=findViewById(R.id.uvpce)
        logoimage.setBackgroundResource((R.drawable.uvpce_animation_list))
        imageanimation = logoimage.background as AnimationDrawable
        logoanimation= AnimationUtils.loadAnimation(this, R.anim.twin_animation)
        logoanimation.setAnimationListener(this)
    }

    override fun onWindowFocusChanged(hasFocus: Boolean) {
        super.onWindowFocusChanged(hasFocus)
        if (hasFocus) {
            imageanimation.start()
            logoimage.startAnimation(logoanimation)
        }
        else {
            imageanimation.stop()
        }
    }
    override fun onAnimationStart(p0: Animation?) {

    }

    override fun onAnimationEnd(p0: Animation?) {
        Intent(this, MainActivity::class.java).apply { startActivity(this) }
    }

    override fun onAnimationRepeat(p0: Animation?) {

    }
}
```

### 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="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="@string/app_name"
        android:textAppearance="?attr/textAppearanceHeadline6"
        android:textSize="20sp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<com.google.android.material.card.MaterialCardView
    android:id="@+id/card"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="20dp"
    app:cardElevation="20dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">

        <ImageView
            android:id="@+id/alarm"
            android:layout_width="match_parent"
            android:layout_height="250dp"
            android:scaleType="center" />

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical"
            android:padding="16dp">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Create Alarm Time"
                android:textAppearance="?attr/textAppearanceHeadline6" />

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginTop="8dp"
                android:text="By pressing buttons, Alarm can be created and cancelled.\n\nCheck current
time by looking below real digital clock. "
                android:textAppearance="?attr/textAppearanceBody2" />

            <ImageView
                android:id="@+id/heart"
                android:layout_width="40dp"
                android:layout_height="40dp"
                android:layout_marginTop="2dp"
                android:layout_marginEnd="25dp"
                android:layout_gravity="right"
```

```
        android:src="@drawable/heart_animation_list"/>

        <LinearLayout
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:orientation="horizontal"
            android:layout_marginTop="10dp">
            <com.google.android.material.button.MaterialButton
                android:id="@+id/create_alarm"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Create Alarm"
                android:backgroundTint="@color/blue"
                app:icon="@drawable/baseline_add_alarm_24" />
            <com.google.android.material.button.MaterialButton
                android:id="@+id/cancel_alarm"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Cancel Alarm"
                android:textColor="@color/blue"
                android:background="#00FFFFFF"
                app:icon="@drawable/baseline_alarm_off_24"
                app:iconTint="@color/blue"/>
        </LinearLayout>
    </LinearLayout>
</com.google.android.material.card.MaterialCardView>
</androidx.constraintlayout.widget.ConstraintLayout>
```

### activity\_splash.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=".SplashActivity"
    android:background="@drawable/gradiant_rectangle">

    <ImageView
        android:id="@+id/uvpce"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```



