

Program No:	22
Roll No :	1545
Title of Program :	Animation
Objective :	Design an animated clip using animation list. choose your own frames

In Android development, animation-list refers to a frame-by-frame animation or Drawable Animation, which is a type of animation that displays a sequence of images in order, similar to a flipbook. It's defined using an XML resource, typically located in the res/drawable/ directory.

**Purpose:** It's used to create animations by showing a series of static images (drawables) one after another, giving the illusion of movement. This is suitable for simple, repetitive animations like a loading spinner, a character walking, or a button changing its state through a sequence of images.

**XML Structure:** An animation-list is defined in an XML file with the root element <animation-list>. Inside this, you define individual frames using the <item> tag. Each <item> specifies a drawable resource and a duration for which that drawable should be displayed.

### Source Code:

#### 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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ImageView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/animation"
        android:background="@drawable/myanimation"
        android:scaleType="fitCenter"
        android:contentDescription="Animated Character"
        />

</LinearLayout>
```

## MainActivity.xml

```
package com.example.animation2;

import android.graphics.drawable.AnimationDrawable;
import android.os.Bundle;
import android.widget.ImageView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {
    private ImageView animatedImageView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);

        ImageView animatedImageView = findViewById(R.id.animation);

        AnimationDrawable animationDrawable = (AnimationDrawable)
animatedImageView.getBackground();
        animationDrawable.start();

    }
}
```

## myanimation.xml

```
<?xml version="1.0" encoding="utf-8"?>
<animation-list xmlns:android="http://schemas.android.com/apk/res/android"
    android:oneshot="false">
    <item android:drawable="@drawable/man1" android:duration="200"/>
    <item android:drawable="@drawable/man2" android:duration="200"/>
    <item android:drawable="@drawable/man3" android:duration="200"/>
    <item android:drawable="@drawable/man4" android:duration="200"/>
    <item android:drawable="@drawable/man5" android:duration="200"/>
    <item android:drawable="@drawable/man6" android:duration="200"/>
    <item android:drawable="@drawable/man7" android:duration="200"/>
</animation-list>
```

Output:

