* **Animation in Android with Example**

Animation is the process of adding a motion effect to any view, image, or text. With the help of an animation, you can add motion or can change the shape of a specific view. Animation in Android is generally used to give your UI a rich look and feel.

Here's example—this time using a **slide-in animation** that makes a view slide in from the left.

**Step 1: Create a Slide-In Animation Resource**

Create a new XML file called slide\_in\_left.xml in your project's res/anim folder:

*<?*xml version="1.0" encoding="utf-8"*?>*<translate xmlns:android="http://schemas.android.com/apk/res/android"  
 android:fromXDelta="-100%"  
 android:toXDelta="0%"  
 android:duration="1000" />

*Explanation:*

* **fromXDelta="-100%"**: The view starts off-screen to the left.
* **toXDelta="0%"**: The view ends at its natural position.
* **duration="100"**: The animation lasts for 500 milliseconds.

**Step 2: Create a Layout with a View**

For this example, let’s create a layout with a Button that will slide in from the left.

**activity\_main.xml**

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:orientation="vertical"  
 android:gravity="center"  
 android:padding="16sp"  
 tools:context=".MainActivity">  
   
 <Button  
 android:id="@+id/slideButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Slide In" />  
  
</LinearLayout>

**Step 3: Load and Start the Animation in Your Activity**

In your MainActivity.java, load the slide-in animation using AnimationUtils and apply it to the button.

**MainActivity.java**

package com.example.slide;  
  
import android.os.Bundle;  
import android.view.animation.Animation;  
import android.view.animation.AnimationUtils;  
import android.widget.Button;  
  
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 {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 *// Find the button by its ID* Button slideButton = findViewById(R.id.*slideButton*);  
  
 *// Load the slide-in animation from the resource* Animation slideAnimation = AnimationUtils.*loadAnimation*(this,R.anim.*slide\_in\_left*);  
  
 *// Start the animation when the activity starts* slideButton.startAnimation(slideAnimation);  
 }  
}

*Explanation:*

* **AnimationUtils.loadAnimation(this, R.anim.slide\_in\_left)**: Loads the slide-in animation from the XML resource.
* **slideButton.startAnimation(slideInAnimation)**: Applies the animation to the Button.

