

What is Animation?

- Animation is the process of creating motion and shape change
- These are used when the UI changes state, such as when new content loads.
- Animations also add a polished look to your app which gives it a higher quality look and feel.

Types of Animations

- **Scale** Animation
used to make a smaller or larger view either on x axis or y axis.
- **Rotate** Animation
used to rotate a view around a pivot point but a certain number of degrees.

Types of Animations

- **Translate** Animation
used to move a view along the x or y axis.
- **Alpha** Animation
Transparency of a view can be changed.



XML Animation Attributes

Attribute	Description
<code>android:duration="1000"</code>	The duration in which animation is completed.
<code>android:fillAfter="true"</code>	defines whether the view should be visible or not at the end of the animation.



XML Animation Attributes

Attribute	Return Type
<code>android:interpolator="@android:anim/linear_interpolator"</code>	refers to the rate of change in animation.
<code>android:startTime="2000"</code>	refers to the waiting time before an animation start.

XML Animation Attributes

Attribute	Return Type
<code>android:repeatMode="restart"</code>	Mode of Repetition Two types of Modes: Restart(default) and Reverse
<code>android:repeatCount="infinite"</code>	defines the number of repetitions on animation.



Animation Example

```

2  <set xmlns:android="http://schemas.android.com/apk/res/android"
3      android:interpolator="@android:anim/accelerate_decelerate_interpolator">
4
5      <translate
6          android:fromXDelta="0"
7          android:toXDelta="300"
8          android:duration="2000" />
9
10 </set>

```

```

21  move = AnimationUtils.loadAnimation( context: this, R.anim.);
22  txtAnim.startAnimation(move);

```



Custom Animation

What is Lottie?



- A Lottie is a JSON-based animation file format that enables designers to ship animations on any platform as easily as shipping static assets.
- To use Lottie animations in our project we need to integrate Lottie Project (Library).



What is Library?



- It is structurally the same as an Android app module. It can include everything needed to build an app.
- Instead of compiling into an APK, it compiles into an Android Archive (AAR) file that is used as a dependency for an Android app module.



Lottie Animation View Example



```
9      <com.airbnb.lottie.LottieAnimationView  
10          android:id="@+id/laView"  
11          android:layout_width="wrap_content"  
12          android:layout_height="wrap_content"  
13          android:layout_centerInParent="true"  
14          app:Lottie_repeatCount="10"  
15          app:Lottie_repeatMode="reverse"/>
```

