

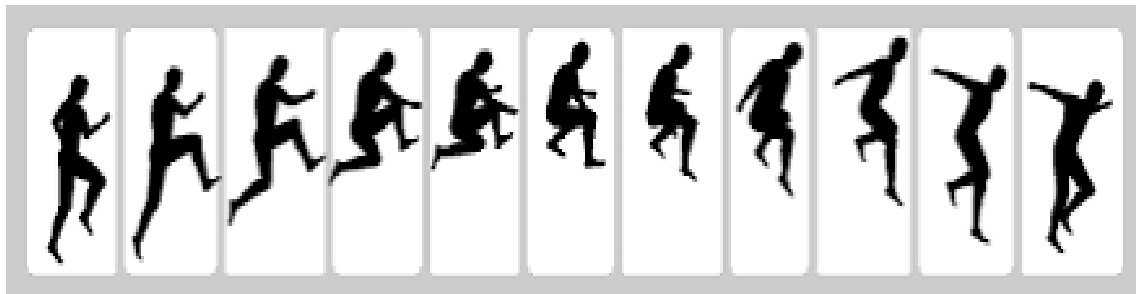
FRAME ANIMATION

Animations add vivacity and personality to your apps.

A key frame in animation and filmmaking is a drawing that defines the starting and ending points of any smooth transition. The drawings are called "frames" because their position in time is measured in frames on a strip of film.

Hence the technique involved in transiting the frames according to time constraint is called FRAME ANIMATION.

Following image shows the how various frames are involved in a certain image.



Additional Reading to Android OS programming – Level 1

Following are the series of steps to be followed to incorporate Frame animation in your android application.

Step 1 : Download the frames of any activity that you wish to show as frame animation in your activity and paste it to **res/drawable folder**.

Step 2 : Create a folder named **anim** in the res folder.

Step 3 : In the newly formed **anim** folder create an Android XML file which will contain all details of the animation.

The xml file will look as follows:

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <animation-list xmlns:android="http://schemas.android.com/apk/res/android"
3     android:oneshot="false"
4     >
5     <item
6         android:drawable="@drawable/android_1"
7         android:duration="100"/>
8     <item
9         android:drawable="@drawable/android_2"
10        android:duration="100"/>
11    <item
12        android:drawable="@drawable/android_3"
13        android:duration="100"/>
14    <item
15        android:drawable="@drawable/android_4"
16        android:duration="100"/>
17    <item
18        android:drawable="@drawable/android_5"
19        android:duration="100"/>
20    <item
21        android:drawable="@drawable/android_6"
22        android:duration="100"/>
23    <item
24        android:drawable="@drawable/android_7"
25        android:duration="100"/>
26 </animation-list>
```

In the above xml file :

oneshot="false" indicates the animation will run infinitely.

Additional Reading to Android OS programming – Level 1

Each image should be embedded in <item> tag & give appropriate source and duration for which you wish to show the frame.

Step 4: In the main.xml file create an image view and give the source of that image view as the xml file in anim folder.

```
<ImageView
    android:id="@+id/myanimation"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_centerVertical="true"
    android:src="@anim/anim_android" />
```

Step 5: Finally bind the image view in java file and apply the animation over it as follows:

```
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.main);

    ImageView myAnimation = (ImageView) findViewById(R.id.myanimation);
    final AnimationDrawable myAnimationDrawable
        = (AnimationDrawable)myAnimation.getDrawable();

    myAnimation.post(
        new Runnable() {
            @Override
            public void run() {
                myAnimationDrawable.start();
            }
        });
}
```

The complete project & .apk file is available along with the documentation.

<https://drive.google.com/open?id=OB4rCFkKCsCeKbDZxdGFIZGFqdVE>