Ex.No: 9 Develop a application to add animations to ImageView,Move,blink,fade,clockwise,zoom,slide operations are perform in android studio.

AIM:

To develop a application to add animation to imageview,move,blink,fade,clockwise,zoom,slide operation using Android Studio.

EQUIPMENTS REQUIRED:

Android Studio(Min.required Artic Fox)

ALGORITHM:

Step 1: Open Android Studio and then click on File -> New -> New project.

Step 2: Then type the Application name as "androidanimation" and click Next.

Step 3: Then select the Minimum SDK as shown below and click Next.

Step 4: Then select the Empty Activity and click Next. Finally click Finish.

Step 5: Design layout in activity_main.xml.

Step 6: Create a anim folder under res and create the xml files for the animation operators.

Step 7: Add animation operations in MainActivity file.

Step 8: Save and run the application.

PROGRAM:

```
/*
Program to display animation operation”.
Developed by: Hariharan M
Registeration Number : 212221230034
*/
```

MainActivity.java:

```
package com.ranjith.animation;
```

```
import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.view.animation.Animation;
import android.view.animation.AnimationUtils;
import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    public void clockwise(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation = AnimationUtils.loadAnimation(getApplicationContext(),
                R.anim.myanimation);
        image.startAnimation(animation);
    }

    public void zoom(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 = AnimationUtils.loadAnimation(getApplicationContext(),
                R.anim.clockwise);
        image.startAnimation(animation1);
    }

    public void fade(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 =
                AnimationUtils.loadAnimation(getApplicationContext(),
                        R.anim.fade);
        image.startAnimation(animation1);
    }

    public void blink(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 =
                AnimationUtils.loadAnimation(getApplicationContext(),
                        R.anim.blink);
        image.startAnimation(animation1);
    }

    public void move(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 =
                AnimationUtils.loadAnimation(getApplicationContext(), R.anim.move);
        image.startAnimation(animation1);
    }
```

```
    public void slide(View view){
        ImageView image = (ImageView)findViewById(R.id.imageView);
        Animation animation1 =
                AnimationUtils.loadAnimation(getApplicationContext(), R.anim.slide);
        image.startAnimation(animation1);
    }

}
```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:paddingLeft="20dp"
    android:paddingRight="20dp"
    android:paddingTop="20dp"
    android:paddingBottom="20dp"
    tools:context=".MainActivity">

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Animation"
    android:id="@+id/textView"
    android:textSize="35dp"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    />

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="20dp"
        android:layout_height="100dp"
        android:paddingTop="10dp"
        android:layout_below="@+id/textView"
        android:layout_alignRight="@+id/textView"
        android:layout_alignEnd="@+id/textView"
        android:layout_alignLeft="@+id/textView"
        android:layout_alignStart="@+id/textView"
        app:srcCompat="@android:drawable/btn_star_big_on" />
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="zoom"
        android:id="@+id/button"
```

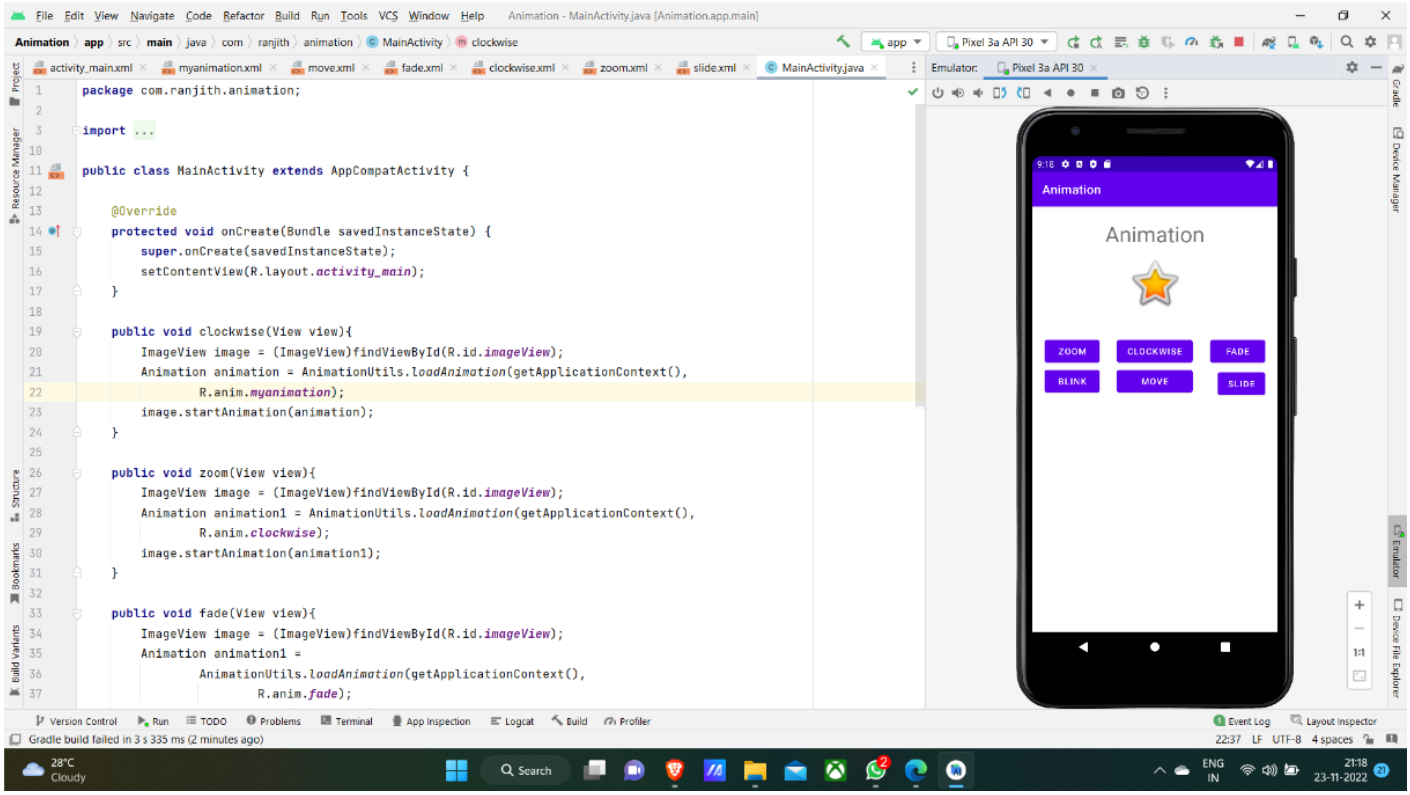
```
    android:layout_below="@+id/imageView"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true"
    android:layout_marginTop="40dp"
    android:onClick="clockwise"/>

<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="clockwise"
    android:id="@+id/button2"
    android:layout_alignTop="@+id/button"
    android:layout_centerHorizontal="true"
    android:onClick="zoom"/>

<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="fade"
    android:id="@+id/button3"
    android:layout_alignTop="@+id/button2"
    android:layout_alignParentRight="true"
    android:layout_alignParentEnd="true"
    android:onClick="fade"/>

<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="blink"
    android:onClick="blink"
    android:id="@+id/button4"
    android:layout_below="@+id/button"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true" />

<Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="move"
    android:onClick="move"
    android:id="@+id/button5"
    android:layout_below="@+id/button2"
    android:layout_alignRight="@+id/button2"
    android:layout_alignEnd="@+id/button2"
    android:layout_alignLeft="@+id/button2"
    android:layout_alignStart="@+id/button2" />

<Button
    android:id="@+id/button6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/button3"
    android:layout_marginStart="21dp"
```

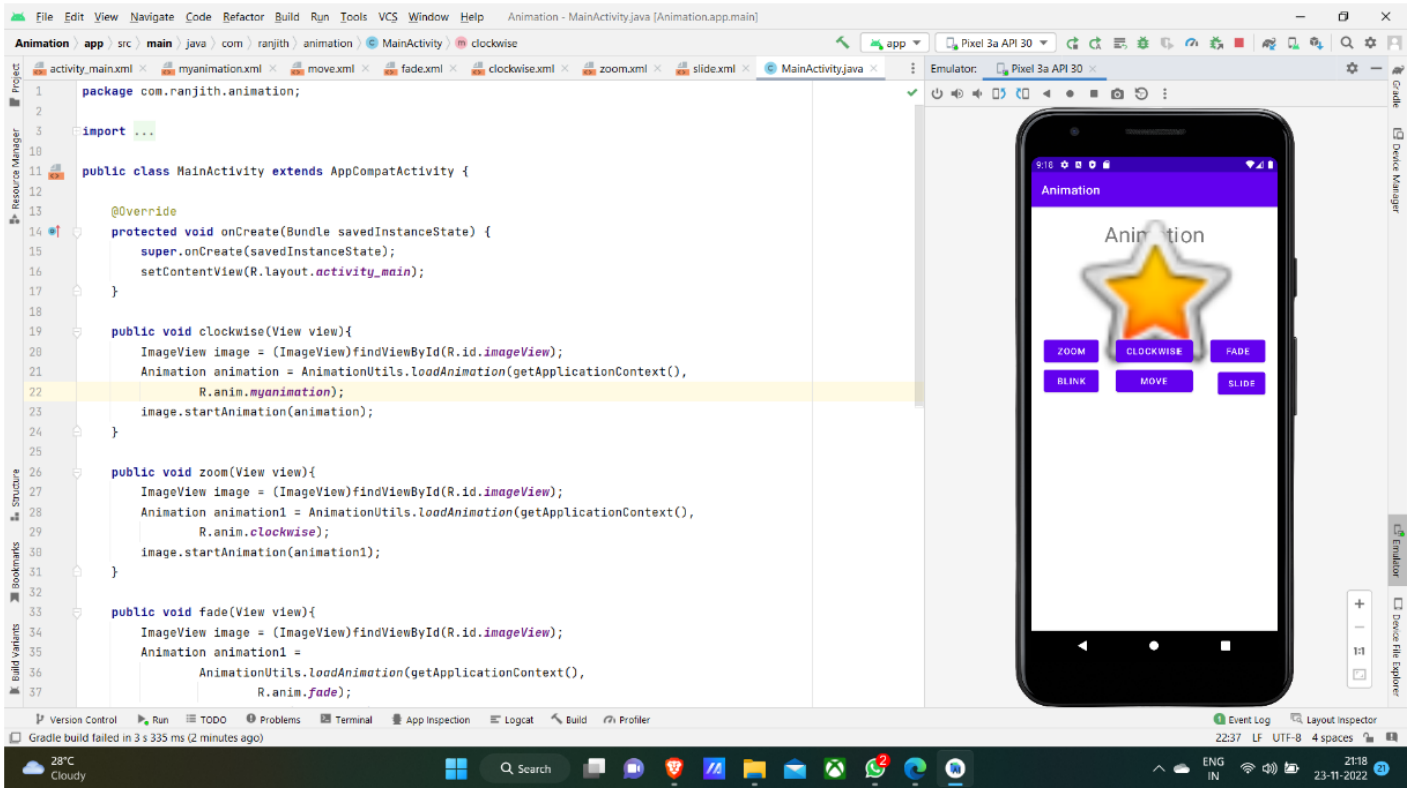
```
        android:layout_marginLeft="21dp"
        android:layout_marginTop="4dp"
        android:layout_toEndOf="@+id/textView"
        android:layout_toRightOf="@+id/textView"
        android:onClick="slide"
        android:text="slide" />

</RelativeLayout>
```
myanimation.xml:
```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">
<scale xmlns:android="http://schemas.android.com/apk/res/android"
    android:fromXScale="0.5"
    android:toXScale="3.0"
    android:fromYScale="0.5"
    android:toYScale="3.0"
    android:duration="5000"
    android:pivotX="50%"
    android:pivotY="50%" >
    </scale>

    <scale xmlns:android="http://schemas.android.com/apk/res/android"
        android:startOffset="5000"
        android:fromXScale="3.0"
        android:toXScale="0.5"
        android:fromYScale="3.0"
        android:toYScale="0.5"
        android:duration="5000"
        android:pivotX="50%"
        android:pivotY="50%" >
    </scale>
</set>
```
move.xml:
```
<?xml version="1.0" encoding="utf-8"?>
<set
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:interpolator="@android:anim/linear_interpolator"
    android:fillAfter="true">

    <translate
        android:fromXDelta="0%p"
        android:toXDelta="75%p"
        android:duration="700" />
</set>
```
blink.xml:
```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">
    <alpha android:fromAlpha="0.0"
        android:toAlpha="1.0"
        android:interpolator="@android:anim/accelerate_interpolator"
        android:duration="500"
        android:repeatMode="reverse"
        android:repeatCount="infinite"/>
```

```
</set>
```
fade.xml:
```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android"
    android:interpolator="@android:anim/accelerate_interpolator">

    <alpha
        android:duration="1000"
        android:fromAlpha="0"
        android:toAlpha="1" />

    <alpha
        android:duration="1000"
        android:fromAlpha="1"
        android:startOffset="2000"
        android:toAlpha="0" />

</set>
```
clockwise.xml:
```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">

<rotate xmlns:android="http://schemas.android.com/apk/res/android"
    android:fromDegrees="0"
    android:toDegrees="360"
    android:pivotX="50%"
    android:pivotY="50%"
    android:duration="5000" >
    </rotate>

    <rotate xmlns:android="http://schemas.android.com/apk/res/android"
        android:startOffset="5000"
        android:fromDegrees="360"
        android:toDegrees="0"
        android:pivotX="50%"
        android:pivotY="50%"
        android:duration="5000" >
    </rotate>
</set>
```
zoom.xml:
```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android"
    android:fillAfter="true" >

    <scale
        android:duration="500"
        android:fromXScale="1.0"
        android:fromYScale="1.0"
        android:interpolator="@android:anim/linear_interpolator"
        android:toXScale="1.0"
        android:toYScale="0.0" />
</set>
```
slide.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android"
    android:fillAfter="true" >
    <scale
        android:duration="500"
        android:fromXScale="1.0"
        android:fromYScale="1.0"
        android:interpolator="@android:anim/linear_interpolator"
        android:toXScale="1.0"
        android:toYScale="0.0" />
</set>
```

OUTPUT


File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
Animation - MainActivity.java [Animation.app.main]
Animation app src main java com ranjith animation MainActivity clockwise
activity_main.xml myanimation.xml move.xml fade.xml clockwise.xml zoom.xml slide.xml MainActivity.java
Emulator: Pixel 3a API 30
package com.ranjith.animation;
import ...
public class MainActivity extends AppCompatActivity {
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
}
public void clockwise(View view){
ImageView image = (ImageView)findViewById(R.id.imageView);
Animation animation = AnimationUtils.loadAnimation(getApplicationContext(),
R.anim.myanimation);
image.startAnimation(animation);
}
public void zoom(View view){
ImageView image = (ImageView)findViewById(R.id.imageView);
Animation animation1 = AnimationUtils.loadAnimation(getApplicationContext(),
R.anim.clockwise);
image.startAnimation(animation1);
}
public void fade(View view){
ImageView image = (ImageView)findViewById(R.id.imageView);
Animation animation1 =
AnimationUtils.loadAnimation(getApplicationContext(),
R.anim.fade);
Animation
Animation
ZOOM
CLOCKWISE
FADE
BLINK
MOVE
SLIDE
Version Control Run TODO Problems Terminal App Inspection Logcat Build Profiler
Event Log Layout Inspector
Gradle build failed in 3 s 335 ms (2 minutes ago)
22:37 LF UTF-8 4 spaces
28°C Cloudy
Search
ENG IN
21:18 23-11-2022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R.anim.myanimation);
image.startAnimation(animation);
}
public void zoom(View view){
ImageView image = (ImageView)findViewById(R.id.imageView);
Animation animation1 = AnimationUtils.loadAnimation(getApplicationContext(),
R.anim.clockwise);
image.startAnimation(animation1);
}
public void fade(View view){
ImageView image = (ImageView)findViewById(R.id.imageView);
Animation animation1 =
AnimationUtils.loadAnimation(getApplicationContext(),
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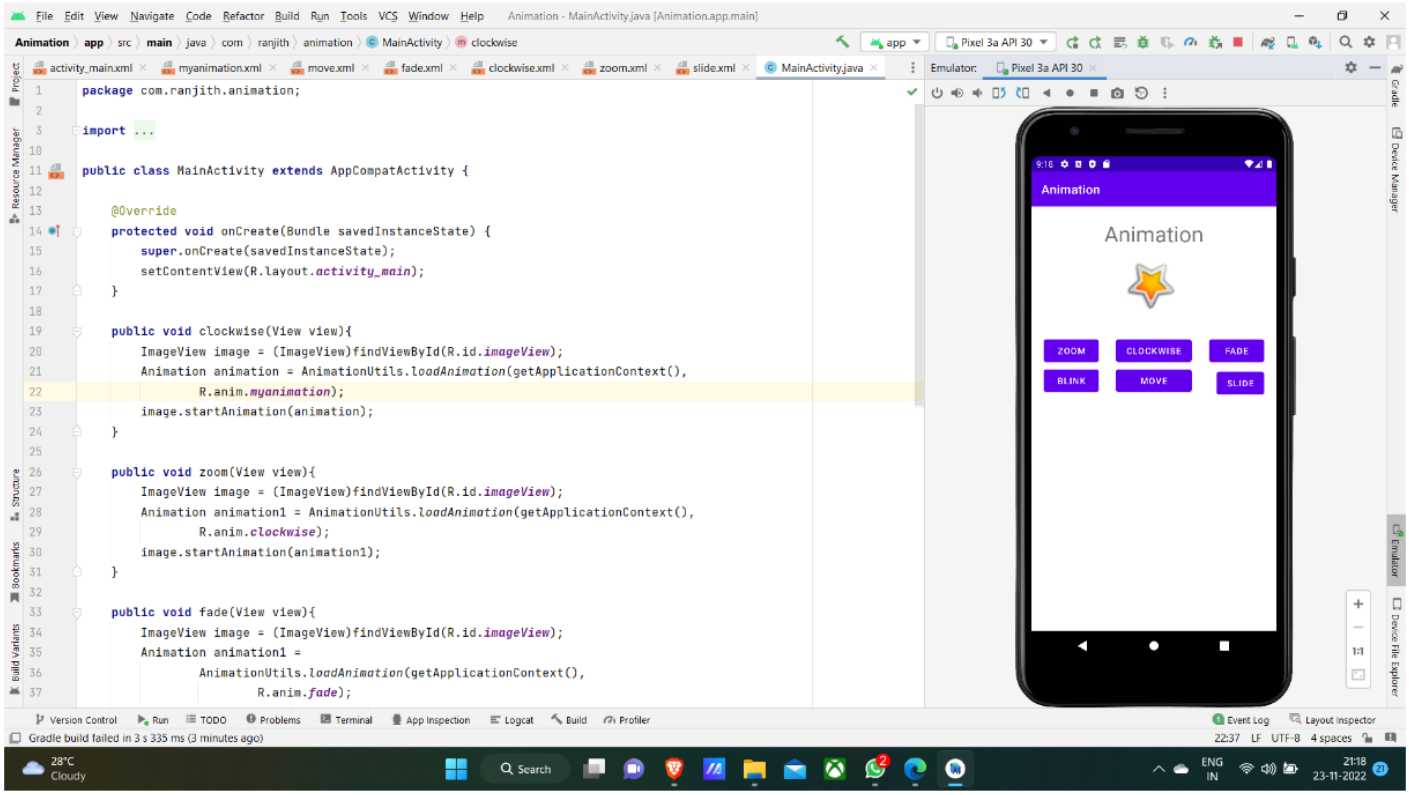
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Animation - MainActivity.java [Animation.app.main]
Animation › app › src › main › java › com › ranjith › animation › MainActivity › clockwise
app
Pixel 3a API 30
activity_main.xml
myanimation.xml
move.xml
fade.xml
clockwise.xml
zoom.xml
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image.startAnimation(animation);
}
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Animation animation1 = AnimationUtils.loadAnimation(getApplicationContext(),
R.anim.clockwise);
image.startAnimation(animation1);
}
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Animation animation1 =
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Emulator:
Pixel 3a API 30
Animation
Animation
ZOOM
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Version Control
Run
TODO
Problems
Terminal
App Inspection
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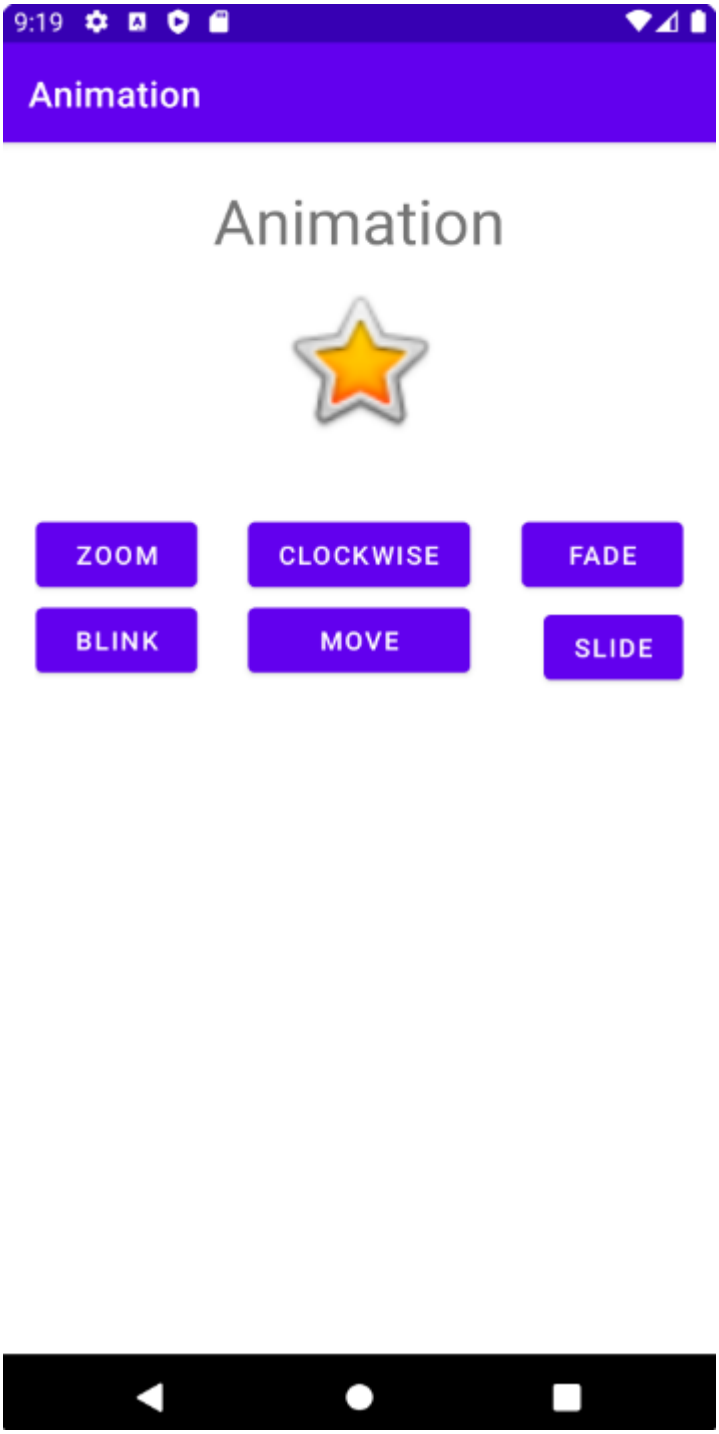
23-11-2022



RESULT

Thus a Simple Android Application to add animations: Move,blink,fade,clockwise,zoom,slide operations using Android Studio is developed and executed successfully.