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Practical Related Questions

1. Write the steps to perform Tween Animation.

- a) Step 1: Open or Start an Android Project.
- b) Step 2: Create the Sky Shape Drawable.
- c) Step 3: Create the Sun Shape Drawable.
- d) Step 4: Create the Grass Shape Drawable.
- e) Step 5: Include the Drawables in the Layout.
- f) Step 6: Define the Sun Rise Animation.
- g) Step 7: Apply the Animation.

2. Explain the use of from XScale and from YScale method in detail.

This method is used to define initial position, from where to start scale animation.

Exercise

MainActivity.java

```
package com.example.animationeg;

import androidx.appcompat.app.AppCompatActivity;

import android.icu.number.Scale;
import android.os.Bundle;
import android.view.View;
import android.view.animation.AlphaAnimation;
import android.view.animation.RotateAnimation;
import android.view.animation.ScaleAnimation;
import android.widget.Button;
import android.widget.ImageView;

public class MainActivity extends AppCompatActivity implements View.OnClickListener {

    ImageView img;
    ScaleAnimation scale;
    RotateAnimation rotate;
    AlphaAnimation alpha;
    Button b1, b2, b3, b4, b5, b6;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        img = (ImageView) findViewById(R.id.imageView);

        b1 = (Button) findViewById(R.id.anticlockwise);
        b2 = (Button) findViewById(R.id.rclockwise);
        b3 = (Button) findViewById(R.id.fadein);
```

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```
b4 = (Button) findViewById(R.id.fadeout);
b5 = (Button) findViewById(R.id.zoomin);
b6 = (Button) findViewById(R.id.zoomout);

b1.setOnClickListener(this);
b2.setOnClickListener(this);
b3.setOnClickListener(this);
b4.setOnClickListener(this);
b5.setOnClickListener(this);
b6.setOnClickListener(this);

}

@Override
public void onClick(View v){
    switch(v.getId()){
        case R.id.anticlockwise:
            rotate = new RotateAnimation(360, 0);
            rotate.setDuration(1000);
            img.startAnimation(rotate);
            break;
        case R.id.rclockwise:
            rotate = new RotateAnimation(0, 360);
            rotate.setDuration(1000);
            img.startAnimation(rotate);
            break;
        case R.id.fadein:
            alpha = new AlphaAnimation(0,1000);
            alpha.setDuration(1000);
            img.startAnimation(alpha);
            break;
        case R.id.fadeout:
            alpha = new AlphaAnimation(1000,0);
            alpha.setDuration(1000);
            img.startAnimation(alpha);
            break;
        case R.id.zoomin:
            scale = new ScaleAnimation(0, 2, 0, 2);
            scale.setDuration(1000);
            img.startAnimation(scale);
            break;
        case R.id.zoomout:
            scale = new ScaleAnimation(2, 0, 2, 0);
            scale.setDuration(1000);
            img.startAnimation(scale);
            break;
    }
}
```

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activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="117dp"
        android:layout_height="121dp"
        android:layout_marginTop="128dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@android:drawable/btn_star_big_on" />

    <Button
        android:id="@+id/rclockwise"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="rotate clockwise"
        app:layout_constraintBottom_toTopOf="@+id/fadein"
        app:layout_constraintStart_toStartOf="parent" />

    <Button
        android:id="@+id/anticlockwise"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="anti clockwise"
        app:layout_constraintBottom_toTopOf="@+id/fadeout"
        app:layout_constraintEnd_toEndOf="parent" />

    <Button
        android:id="@+id/fadein"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Fade In"
        app:layout_constraintBottom_toTopOf="@+id/zoomin"
        app:layout_constraintStart_toStartOf="parent" />

    <Button
        android:id="@+id/fadeout"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Fade Out"
        app:layout_constraintBottom_toTopOf="@+id/zoomout"
        app:layout_constraintEnd_toEndOf="parent" />

    <Button
```

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```
        android:id="@+id/zoomin"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Zoom IN"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

<Button
    android:id="@+id/zoomout"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Zoom Out"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```