CSE- 4002 LAB-6 Assignment

Academic year: 2020-2021 **Semester:** WIN

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Floating Button App

1.) Design a Floating action button demo. Initially only the pink button should display when the the pink button is click the rest of the three buttons should be displayed. When each button is clicked then a toast message should be displayed. When the pink button is pressed again the three buttons should hide.

CODE:

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">


    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/fab1"
        android:layout_width="62dp"
        android:layout_height="100dp"
        android:layout_marginEnd="36dp"
        android:layout_marginBottom="120dp"
        android:clickable="true"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
```

```
    app:srcCompat="@android:drawable/ic_input_add"
    tools:ignore="SpeakableTextPresentCheck" />

<com.google.android.material.floatingactionbutton.FloatingActionButton
    android:id="@+id/fab2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="64dp"
    android:layout_marginBottom="48dp"
    android:clickable="true"
    app:backgroundTint="#FAF757"
    app:fabSize="mini"
    app:layout_constraintBottom_toTopOf="@+id/fab1"
    app:layout_constraintEnd_toEndOf="parent"
    app:srcCompat="@android:drawable/ic_delete"
    tools:ignore="MissingConstraints,SpeakableTextPresentCheck" />

<com.google.android.material.floatingactionbutton.FloatingActionButton
    android:id="@+id/fab3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="208dp"
    android:layout_marginBottom="84dp"
    android:clickable="true"
    app:backgroundTint="#51E151"
    app:fabSize="mini"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/fab1"
    app:layout_constraintHorizontal_bias="0.377"
    app:layout_constraintStart_toStartOf="parent"
    app:srcCompat="@android:drawable/ic_btn_speak_now"
    tools:ignore="SpeakableTextPresentCheck" />

<com.google.android.material.floatingactionbutton.FloatingActionButton
    android:id="@+id/fab4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="220dp"
    android:layout_marginBottom="36dp"
    android:clickable="true"
    android:minWidth="32dp"
    android:minHeight="32dp"
    app:backgroundTint="#FF6F00"
    app:fabSize="mini"
    app:layout_constraintBottom_toTopOf="@+id/fab3"
    app:layout_constraintStart_toStartOf="parent"
    app:srcCompat="@android:drawable/ic_lock_lock"
    tools:ignore="SpeakableTextPresentCheck" />
```

```
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="84dp"
        android:background="#9780B3"
        android:text="Floating Button"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.474"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />


</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```
----------------------
package com.example.floatingbutton;

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.Toast;

import com.google.android.material.floatingactionbutton.FloatingActionButton;


public class MainActivity extends AppCompatActivity {


    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState); setContentView(R.layout.activity_main);
        final boolean[] flag = {false};
        FloatingActionButton fab1 = (FloatingActionButton) findViewById(R.id.fab1);
        final FloatingActionButton fab2 = (FloatingActionButton)
findViewById(R.id.fab2);
        final FloatingActionButton fab3 = (FloatingActionButton)
findViewById(R.id.fab3);

        final FloatingActionButton fab4 = (FloatingActionButton)
findViewById(R.id.fab4);
```

```
        final Animation in =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.show);
        final Animation out =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.hide);


        fab1.setOnClickListener(new View.OnClickListener(){


            @Override
            public void onClick(View v) { if (flag[0]) {

                Toast.makeText(getApplicationContext(), "fba1",
Toast.LENGTH_SHORT).show();
                fab2.startAnimation(in); fab3.startAnimation(in);
fab4.startAnimation(in);
            }
            else
            {
                fab2.startAnimation(out); fab3.startAnimation(out);
fab4.startAnimation(out);
            }
                flag[0] =!flag[0];
            }
        });


        fab2.setOnClickListener(new View.OnClickListener() { @Override
        public void onClick(View v) {
            Toast.makeText(getApplicationContext(), "fba2",
Toast.LENGTH_SHORT).show();
        }
        });


        fab3.setOnClickListener(new View.OnClickListener() { @Override
        public void onClick(View v) {
            Toast.makeText(getApplicationContext(), "fba3",
Toast.LENGTH_SHORT).show();
        }
        });


        fab4.setOnClickListener(new View.OnClickListener() { @Override
        public void onClick(View v) {
            Toast.makeText(getApplicationContext(), "fba4",
Toast.LENGTH_SHORT).show();
        }
```

```
        });
    }
}
```

hide.xml

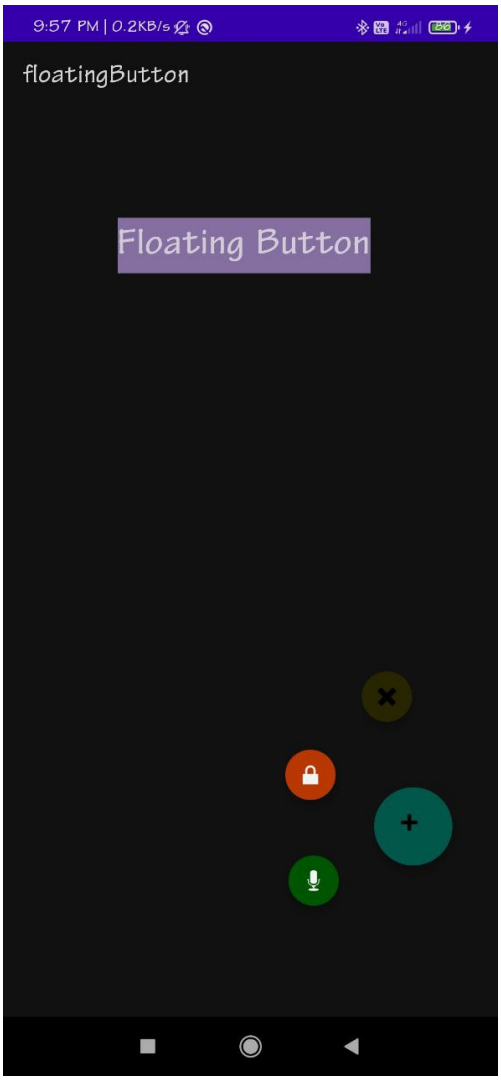
```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android"
android:fillAfter="true">

    <translate
        android:duration="1000"
        android:fromXDelta="0%"
        android:fromYDelta="0%"
        android:interpolator="@android:anim/linear_interpolator"
        android:toXDelta="100%"
        android:toYDelta="100%"></translate>

    <alpha
        android:duration="2000"
        android:fromAlpha="1.0"
        android:interpolator="@android:anim/accelerate_interpolator"
        android:toAlpha="0.0"></alpha>
</set>
```

Show.xml

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

    <rotate
        android:duration="500"
        android:fromDegrees="30"
        android:interpolator="@android:anim/linear_interpolator"
        android:pivotX="50%"
        android:pivotY="50%"
        android:repeatCount="4"
        android:repeatMode="reverse"
        android:toDegrees="0"></rotate>



    <translate
        android:duration="1000"
        android:fromXDelta="170%"
        android:fromYDelta="25%"
        android:interpolator="@android:anim/linear_interpolator"
```

```
        android:toXDelta="0%"
        android:toYDelta="0%"></translate>

    <alpha
        android:duration="2000"
        android:fromAlpha="0.0"
        android:interpolator="@android:anim/decelerate_interpolator"
        android:toAlpha="1.0"></alpha>
</set>
```

OUTPUT :



2. Design an App to scale one image big and one image small and vice versa.

CODE:

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="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toTopOf="@+id/imageView1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@android:drawable/ic_menu_gallery"
        tools:ignore="ContentDescription" />

   <ImageView
        android:id="@+id/imageView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.823"
app:srcCompat="?android:attr/galleryItemBackground"
        android:contentDescription="TODO"
        tools:ignore="ContentDescription,HardcodedText" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Zoom_in.xml

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

```
        xmlns:android="http://schemas.android.com/apk/res/android"
android:duration="1000"
        android:fromXScale="0"
        android:fromYScale="0"
        android:pivotX="50%"
        android:pivotY="50%"
        android:toXScale="1"
        android:toYScale="1"
        tools:ignore="RedundantNamespace">
    </scale>
</set>
```

Zoom_out.xml

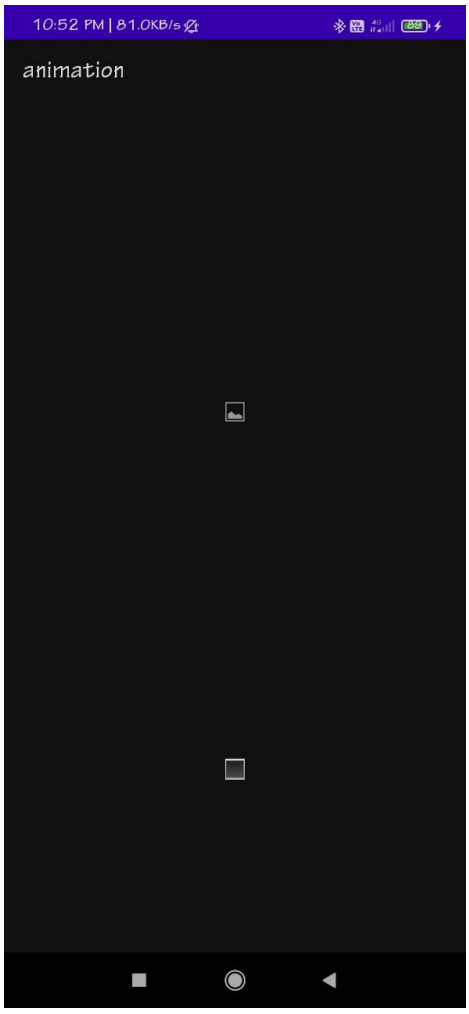
```
-------------------------
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">
    <scale
        android:duration="1000"
        android:fromXScale="1"
        android:fromYScale="1"
        android:pivotX="50%"
        android:pivotY="50%"
        android:toXScale="0"
        android:toYScale="0" />
</set>
```

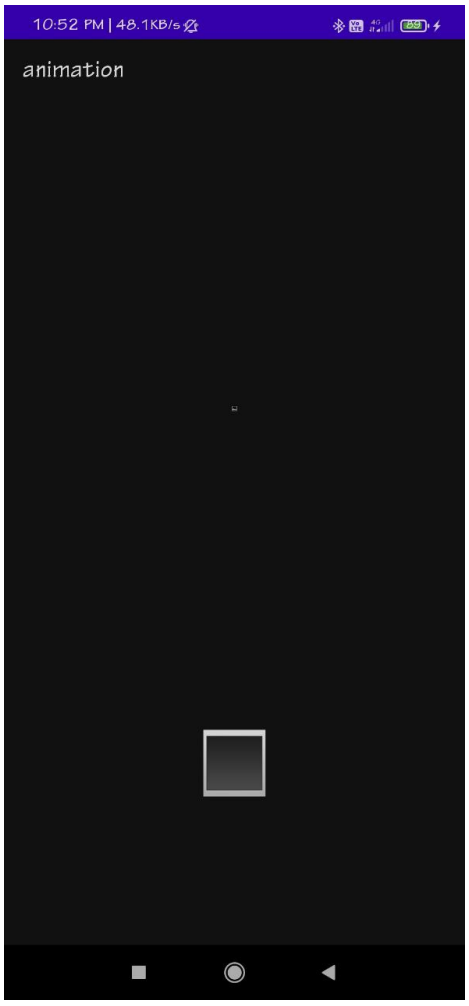
MainActivity.java

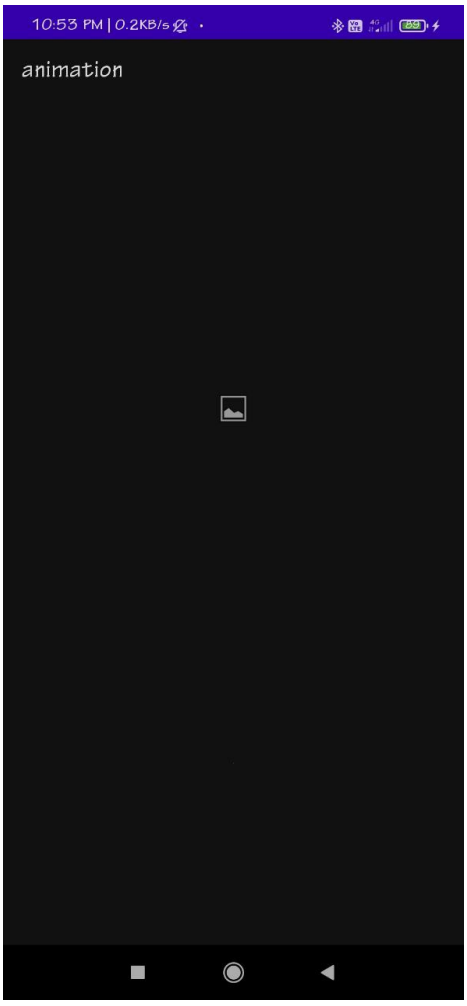
```
--------------------------
package com.example.animation;

import androidx.appcompat.app.AppCompatActivity; import android.os.Bundle;
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);
    final ImageView iv1=(ImageView)findViewById(R.id.imageView); final ImageView
iv2=(ImageView)findViewById(R.id.imageView1);
    final Animation animZoomIn =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.zoom_in);
    final Animation animZoomIn2 =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.zoom_in);
    final Animation animZoomOut =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.zoom_out);
    final Animation animZoomOut2 =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.zoom_out);


    iv1.startAnimation(animZoomIn); iv2.startAnimation(animZoomOut2);
```

```
   animZoomIn.setAnimationListener(new Animation.AnimationListener() { @Override
   public void onAnimationStart(Animation animation) {    } @Override
   public void onAnimationEnd(Animation animation) {
iv1.startAnimation(animZoomOut);
   }
       @Override
       public void onAnimationRepeat(Animation animation) {   }  });


   animZoomOut.setAnimationListener(new Animation.AnimationListener()
   {
       @Override
       public void onAnimationStart(Animation animation) {    } @Override
   public void onAnimationEnd(Animation animation) { iv1.startAnimation(animZoomIn);
   }
       @Override
       public void onAnimationRepeat(Animation animation) {   }  });

   animZoomIn2.setAnimationListener(new Animation.AnimationListener() { @Override
   public void onAnimationStart(Animation animation) {    } @Override
   public void onAnimationEnd(Animation animation) {
iv2.startAnimation(animZoomOut2);
   }
       @Override
       public void onAnimationRepeat(Animation animation) {   }  });


   animZoomOut2.setAnimationListener(new Animation.AnimationListener() {
       @Override
       public void onAnimationStart(Animation animation) {    } @Override
       public void onAnimationEnd(Animation animation) {
iv2.startAnimation(animZoomIn2);
       }
       @Override
       public void onAnimationRepeat(Animation animation) {
       }
   });
}
}
```

OUTPUT :


10:52 PM | 81.0KB/s
animation


10:52 PM | 48.1KB/s
animation


10:53 PM | 0.2KB/s
animation