

CSE 4002 MOBILE APP DEVELOPMENT

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LAB ASSIGNMENT-6

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 toast message should be displayed. When the pink button is pressed again the three buttons should hide.

XML CODE:

```
<?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"
    android:backgroundTint="#C011FF"
    android:backgroundTintMode="add"
    android:foregroundTint="#C011FF"
    android:foregroundTintMode="add"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Floating action Buttons"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toTopOf="parent" />
```

```
<com.google.android.material.floatingactionbutton.FloatingActionButton
```

```
    android:id="@+id/fab1"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_marginStart="32dp"
```

```
    android:layout_marginBottom="160dp"
```

```
    android:backgroundTint="@color/pink"
```

```
    android:clickable="true"
```

```
    app:layout_constraintBottom_toBottomOf="parent"
```

```
    app:layout_constraintStart_toEndOf="@+id/fab2"
```

```
    app:rippleColor="#C011FF"
```

```
    app:srcCompat="@android:drawable/ic_dialog_dialer" />
```

```
<com.google.android.material.floatingactionbutton.FloatingActionButton
```

```
    android:id="@+id/fab2"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_marginEnd="172dp"
```

```
    android:layout_marginBottom="160dp"
```

```
    android:backgroundTint="@color/blue"
```

```
    android:clickable="true"
```

```
    android:visibility="invisible"
```

```
    app:backgroundTint="#0090FF"
```

```
    app:layout_constraintBottom_toBottomOf="parent"
```

```
    app:layout_constraintEnd_toEndOf="parent"
```

```
    app:srcCompat="@android:drawable/ic_media_rew" />
```

```
<com.google.android.material.floatingactionbutton.FloatingActionButton
```

```
    android:id="@+id/fab3"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_marginEnd="33dp"
```

```
    android:backgroundTint="@color/blue"
```

```
    android:clickable="true"
```

```
    android:visibility="invisible"
```

```
    app:layout_constraintEnd_toStartOf="@+id/fab4"
```

```
app:layout_constraintTop_toTopOf="@+id/fab4"
app:srcCompat="@android:drawable/ic_media_play" />

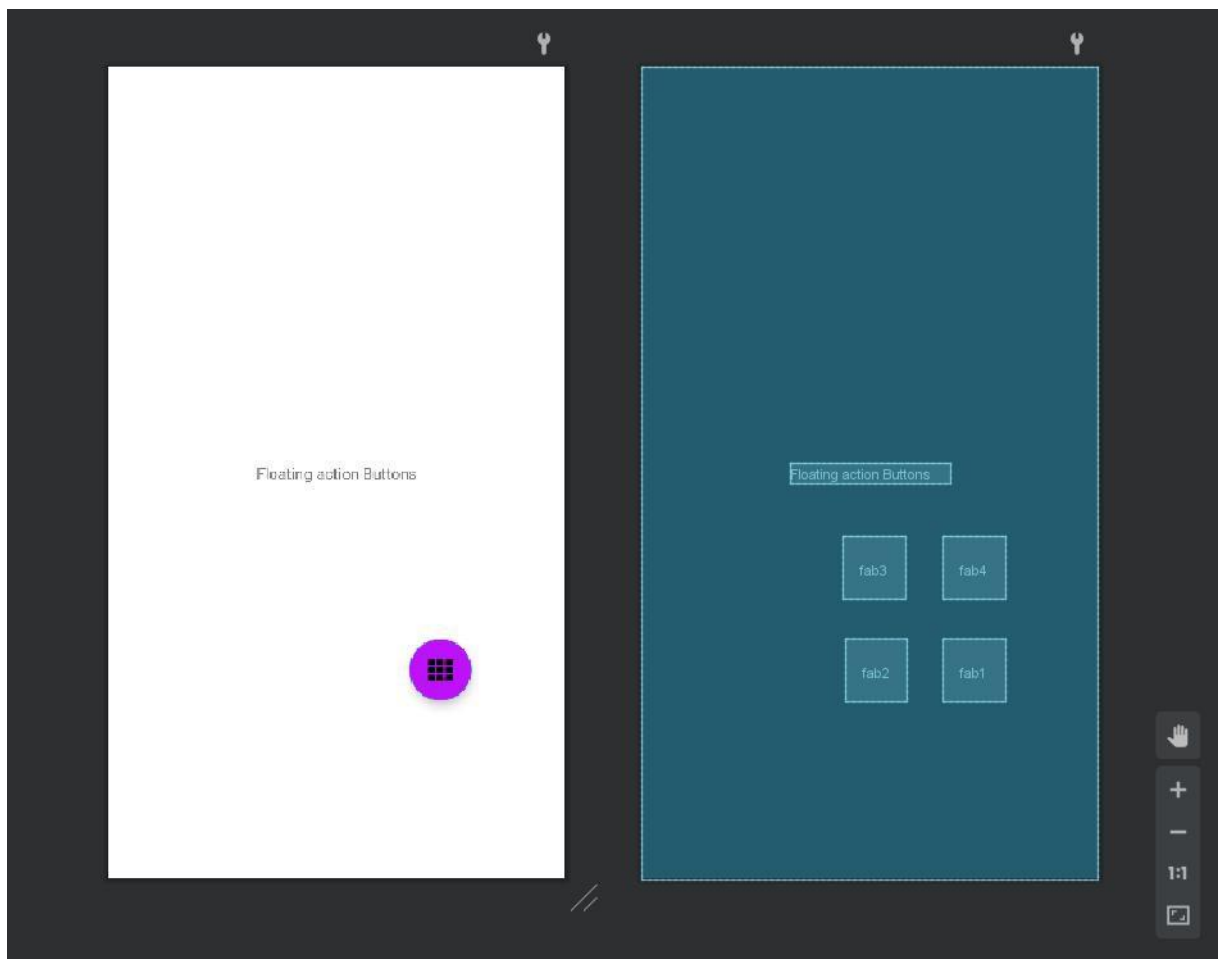
<com.google.android.material.floatingactionbutton.FloatingActionButton
    android:id="@+id/fab4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="37dp"

    android:backgroundTint="@color/blue"

    android:clickable="true"
    android:visibility="invisible"
    app:layout_constraintBottom_toTopOf="@+id/fab1"
    app:layout_constraintStart_toStartOf="@+id/fab1"
    app:srcCompat="@android:drawable/ic_media_ff" />

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

DESIGN:



MainActivity Java CODE:

```
package com.example.lab5_fab;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Toast;

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

public class MainActivity extends AppCompatActivity {
    FloatingActionButton fa1,fa2,fa3,fa4;
    int flag;
```

@Override

```
protected void onCreate(Bundle savedInstanceState) {
```

```
    super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);
```

```
    fa1=findViewById(R.id.fab1);
```

```
    fa2=findViewById(R.id.fab2);
```

```
    fa3=findViewById(R.id.fab3);
```

```
    fa4=findViewById(R.id.fab4);
```

```
    fa1.setOnClickListener(new View.OnClickListener() {
```

```
        @Override
```

```
        public void onClick(View view) {
```

```
            if(flag==0){
```

```
                Toast.makeText(getApplicationContext(),"fab 'MENU' is  
clicked",Toast.LENGTH_SHORT).show();
```

```
                fa2.setVisibility(View.VISIBLE);
```

```
                fa3.setVisibility(View.VISIBLE);
```

```
                fa4.setVisibility(View.VISIBLE);
```

```
                fa2.setOnClickListener(new View.OnClickListener() {
```

```
                    @Override
```

```
                    public void onClick(View view) {
```

```
                        Toast.makeText(getApplicationContext(),"fab1 'PREV' is  
clicked",Toast.LENGTH_SHORT).show();
```

```
                    }
```

```
                });
```

```
                fa3.setOnClickListener(new View.OnClickListener() {
```

```
                    @Override
```

```
                    public void onClick(View view) {
```

```
                        Toast.makeText(getApplicationContext(),"fab2 'PAUSE' is  
clicked",Toast.LENGTH_SHORT).show();
```

```
                    }
```

```
                });
```

```
                fa4.setOnClickListener(new View.OnClickListener() {
```

```

        @Override
        public void onClick(View view) {
            Toast.makeText(getApplicationContext(), "fab3 'NEXT' is
clicked", Toast.LENGTH_SHORT).show();

        }
    };

    flag=1;

}

else{
    fa2.setVisibility(View.VISIBLE);
    fa3.setVisibility(View.VISIBLE);
    fa4.setVisibility(View.VISIBLE);
    flag=0;
}

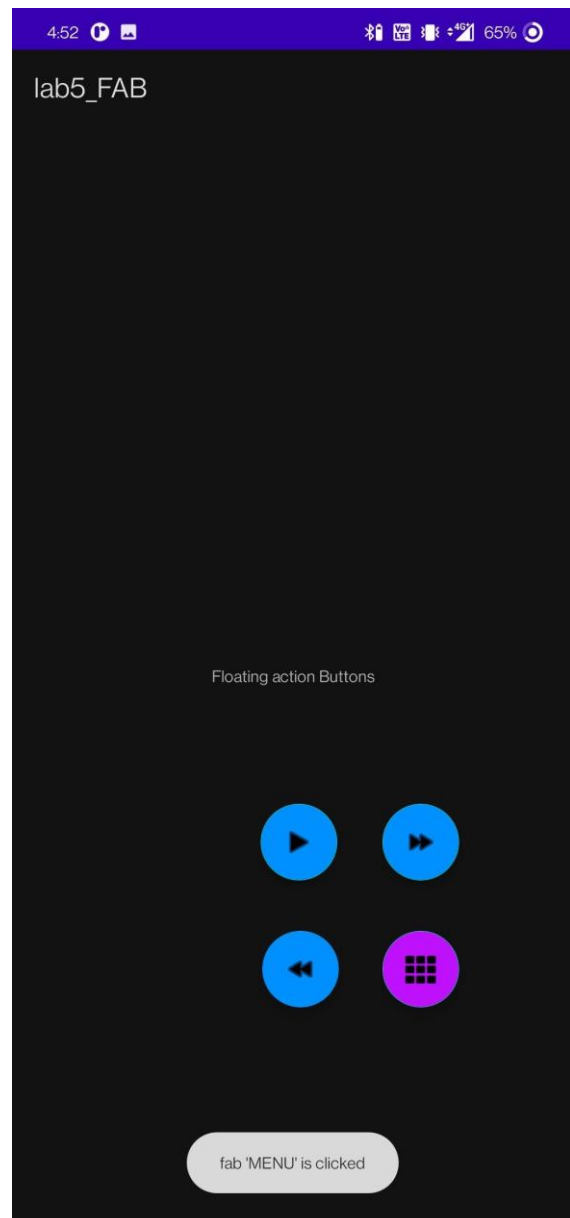
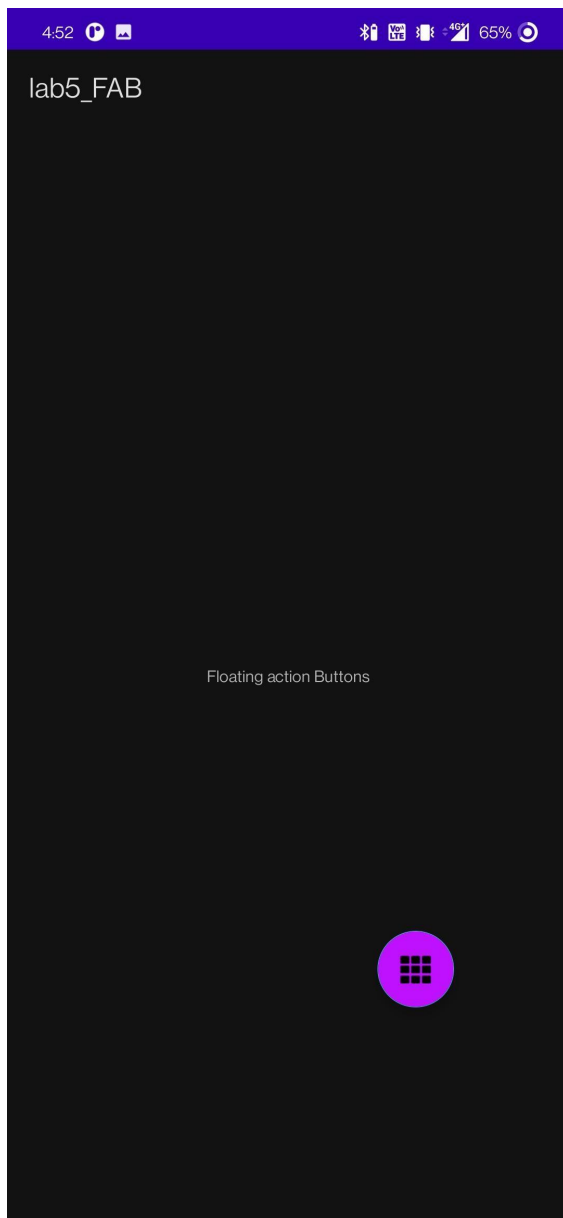
};

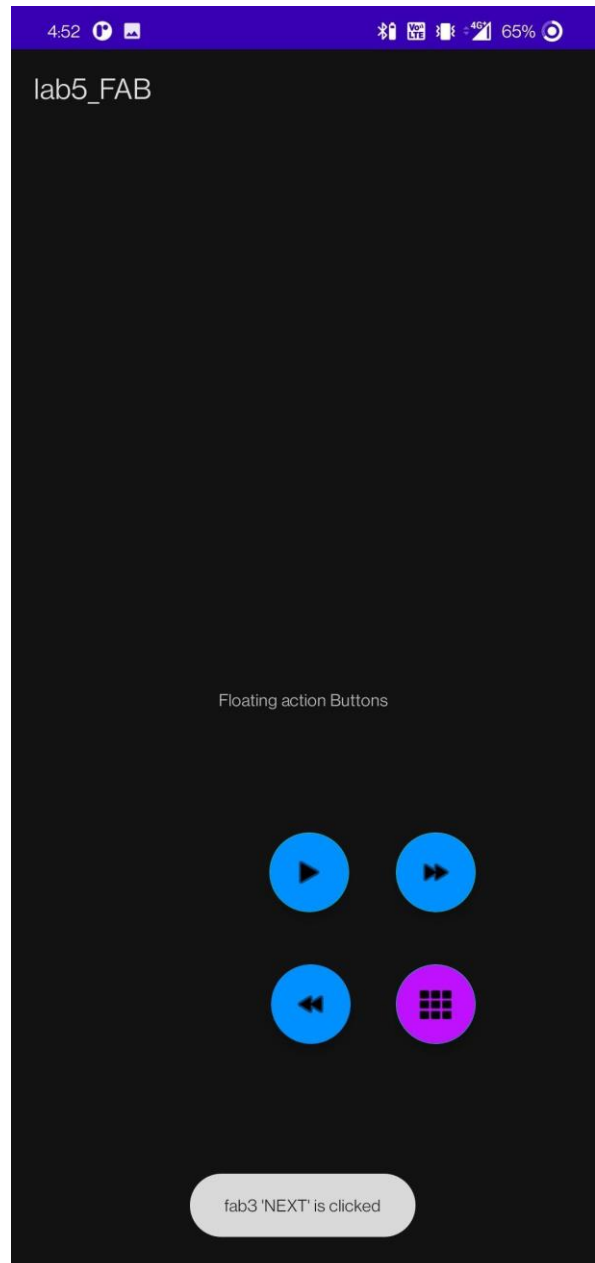
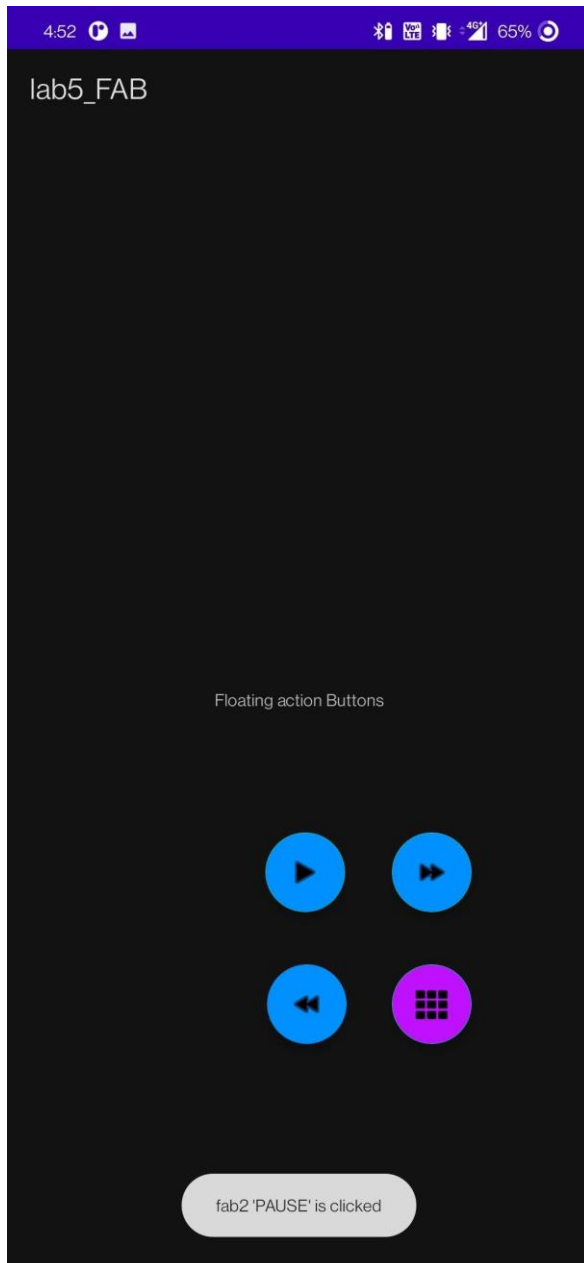
});
}

}

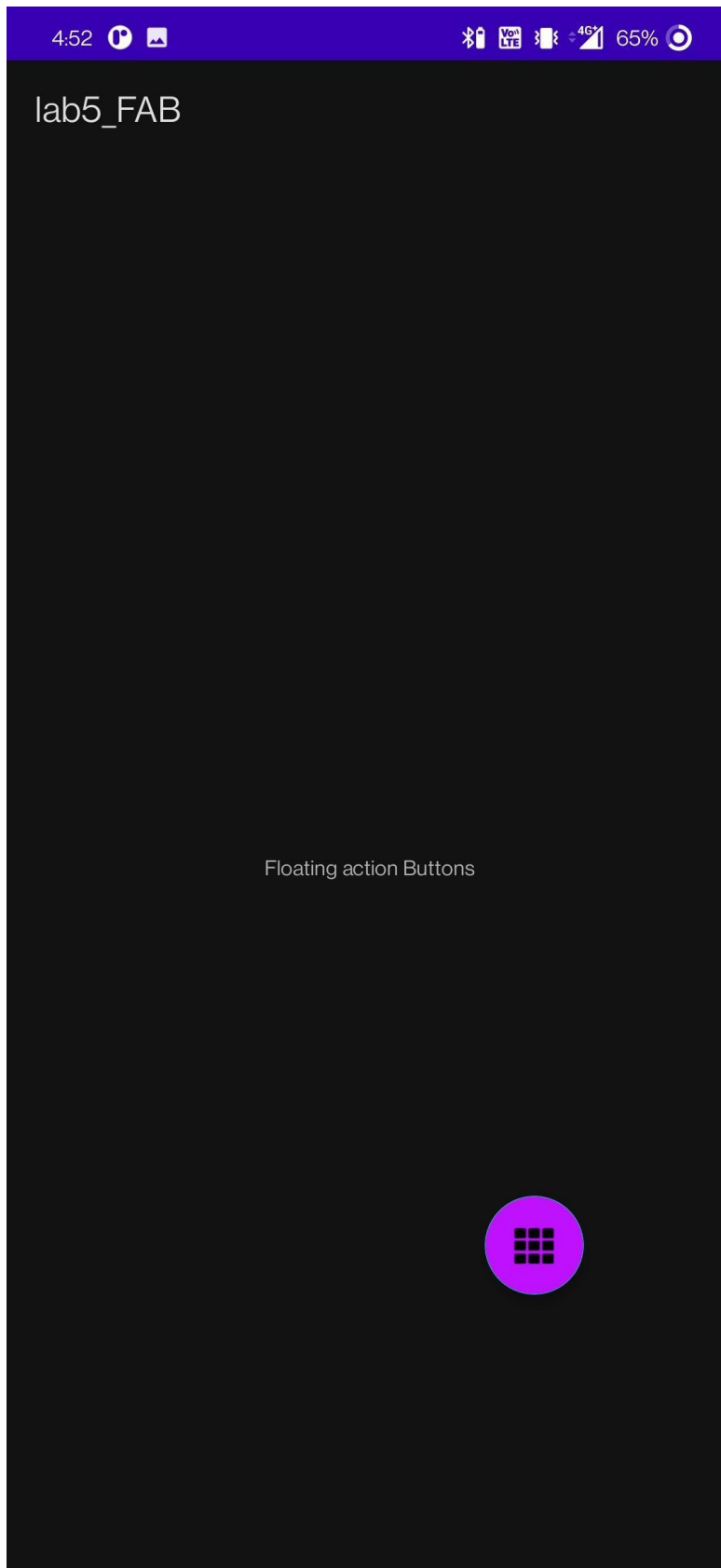
```

Output:





After Clicking MENU again, those three fab's go invisible again.



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

(XML code)

For 1st Image Animation:

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">
    <scale
        android:fromXScale="100dp"
        android:fromYScale="100dp"
        android:toXScale="400dp"
        android:toYScale="400dp"
        android:duration="5000"
        android:pivotY="50%"
        android:pivotX="50%"
        android:repeatMode="reverse"
        android:repeatCount="5"
    />
</set>
```

For 2nd Image Animation

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android">
    <scale
        android:fromXScale="400dp"
        android:fromYScale="400dp"
        android:toXScale="100dp"
        android:toYScale="100dp"
        android:duration="5000"
        android:pivotY="50%"
        android:pivotX="50%"
        android:repeatMode="reverse"
        android:repeatCount="5"
    />
</set>
```

Activity Code:

```
<?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/ig1"
        android:layout_width="225dp"
        android:layout_height="125dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.435"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.169"
        app:srcCompat="@drawable/iceland" />
```

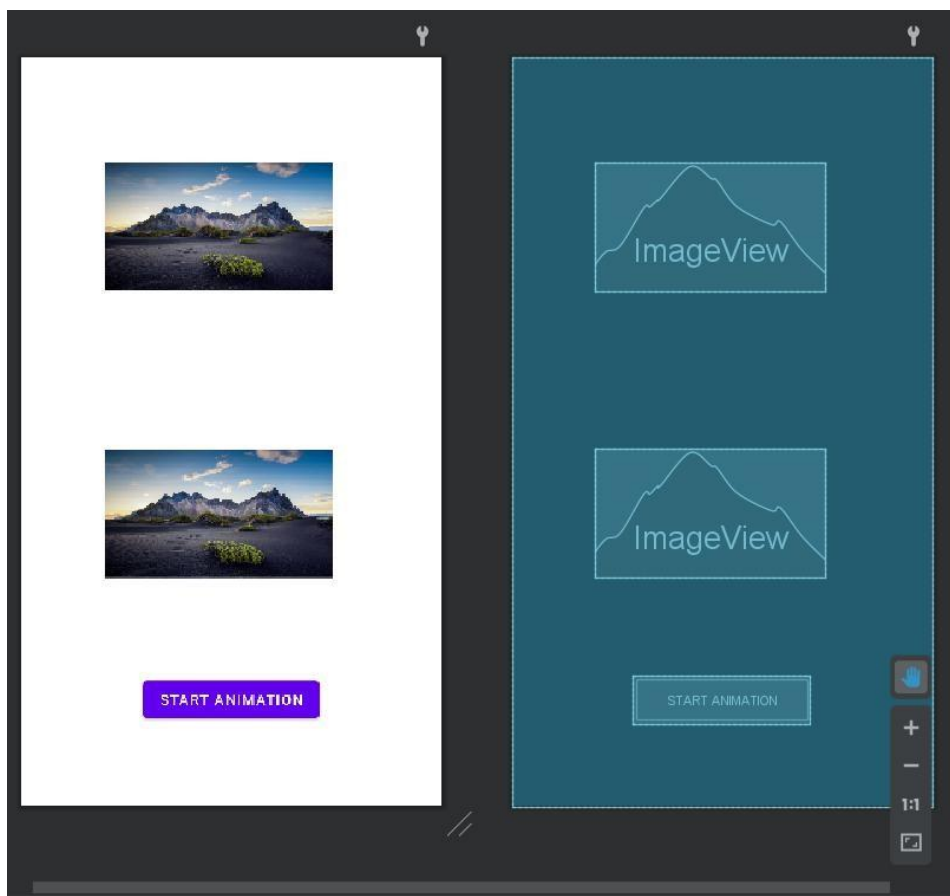
```

<ImageView
    android:id="@+id/ig2"
    android:layout_width="225dp"
    android:layout_height="125dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.435"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.632"
    app:srcCompat="@drawable/iceland" />

<Button
    android:id="@+id/bt1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="80dp"
    android:text="Start Animation"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity Design:



Java Code:

```
package com.example.animashans;

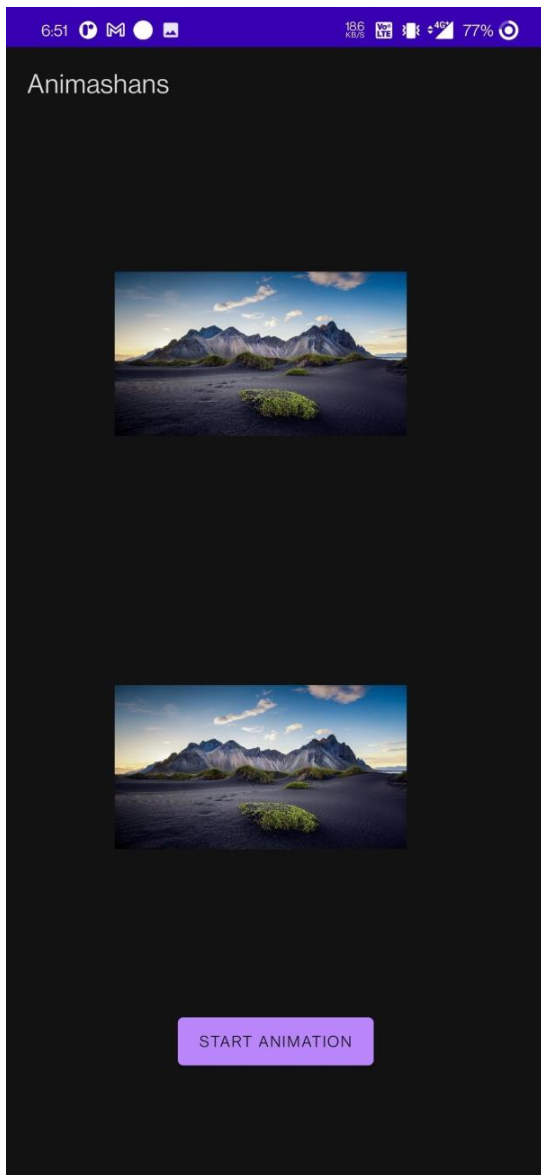
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.view.animation.Animation;
import android.view.animation.AnimationUtils;
import android.widget.Button;
import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {
    ImageView img,img1;
    Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        img=findViewById(R.id.ig1);
        img1=findViewById(R.id.ig2);
        b1=findViewById(R.id.bt1);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Animation anime=
                AnimationUtils.loadAnimation(MainActivity.this,R.anim.anime1);

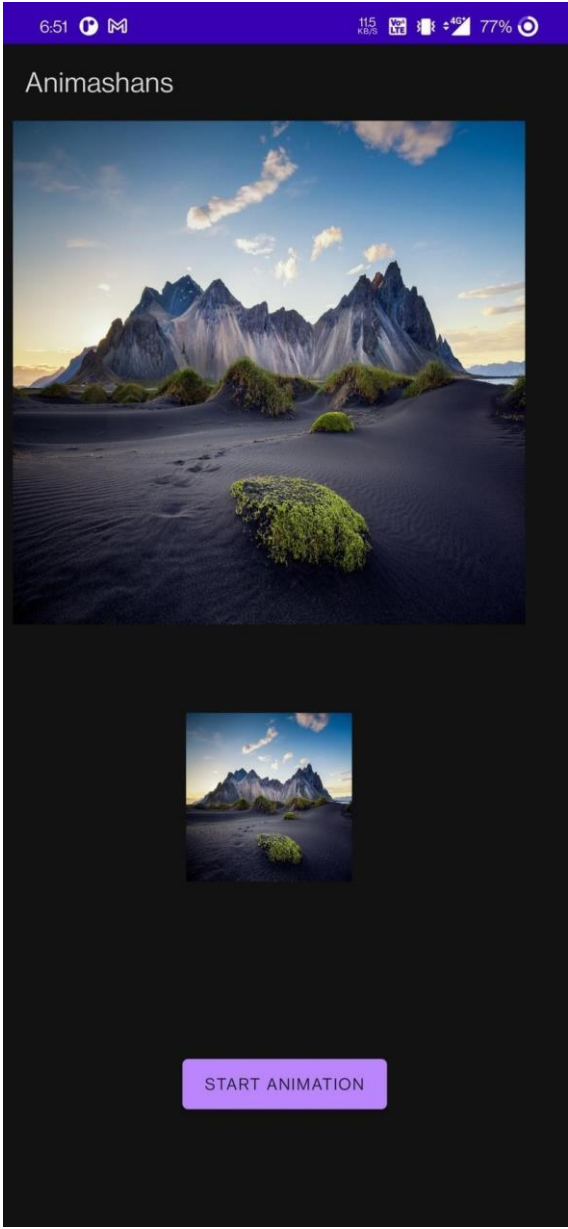
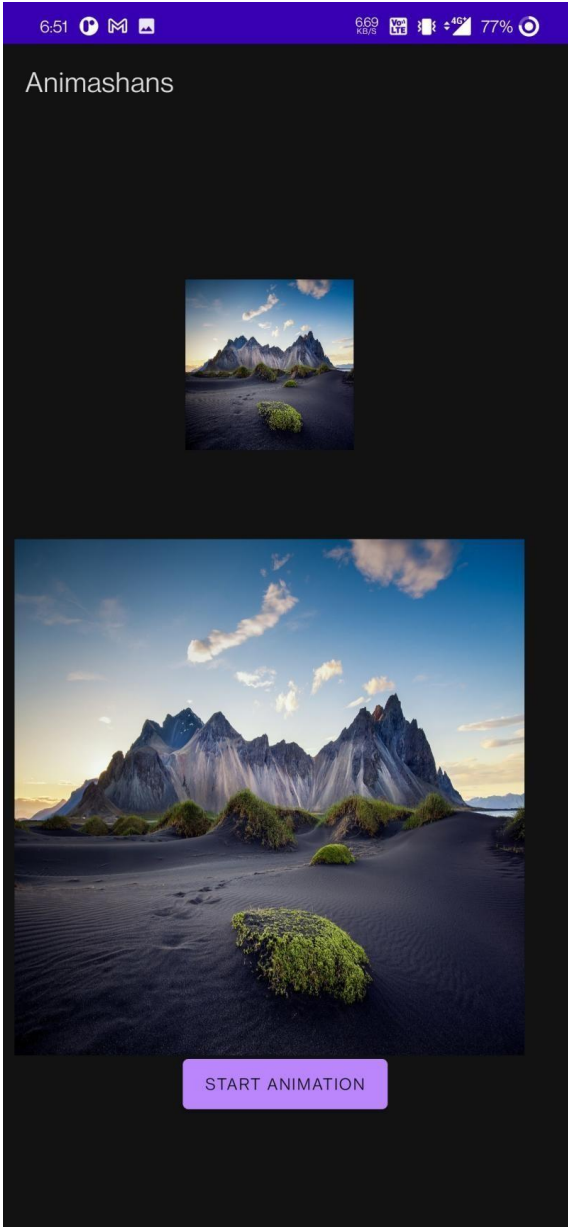
                img.startAnimation(anime);
                Animation anime1=
                AnimationUtils.loadAnimation(MainActivity.this,R.anim.anime2);

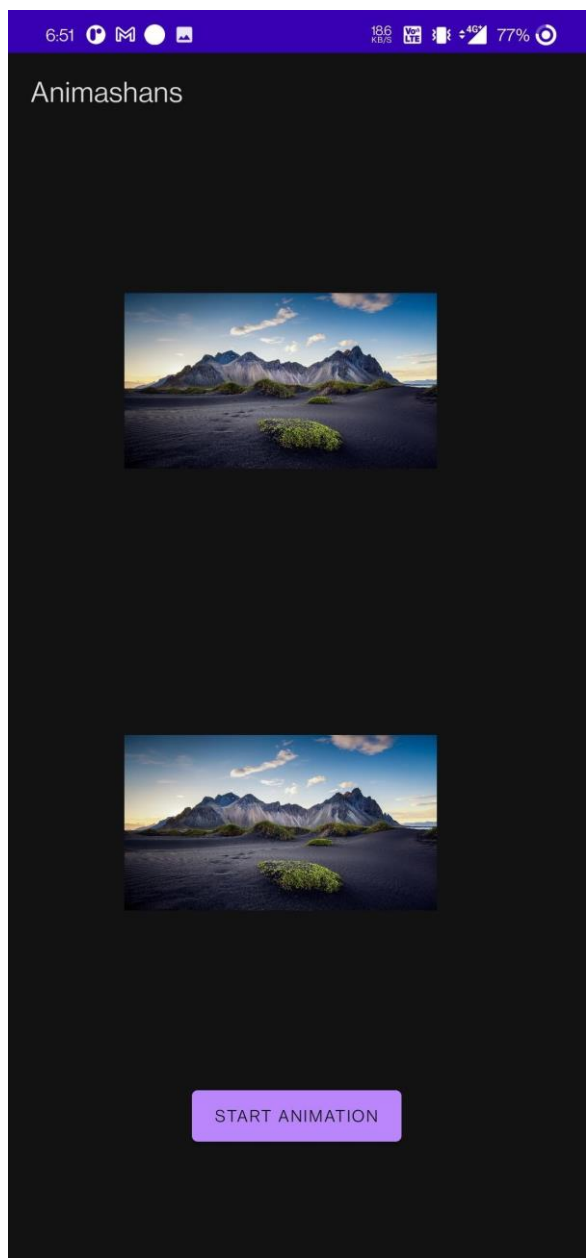
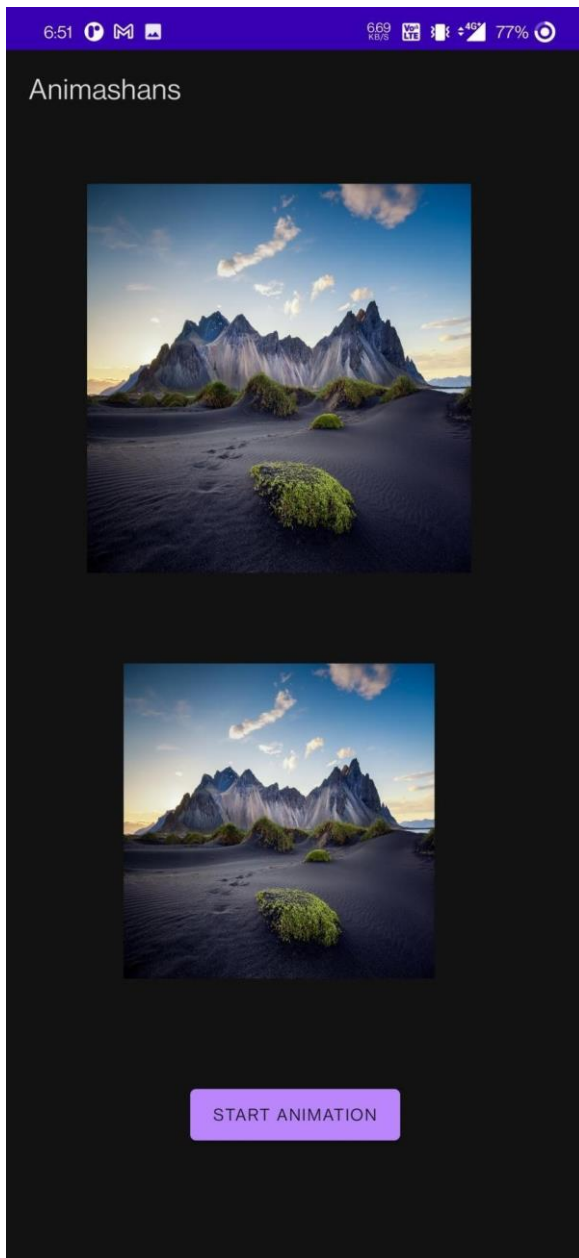
                img1.startAnimation(anime1);
            }
        });
    }
}
```

Output:



After ‘*Start Animation*’ button is pressed:





Final (zoom out and zoom in vice versa):