

EXERCISE 9

CREATE SIMPLE APPLICATION USING ANIMATION

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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"
    android:textAlignment="center"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="250dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="75dp"
        android:layout_marginEnd="67dp"
        android:text="Floating Action Button"
        android:textColor="#0D8075"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/fabplus"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="30dp"
        android:layout_marginBottom="67dp"
        android:clickable="true"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:srcCompat="@android:drawable/ic_input_add" />

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

```

    android:id="@+id/fabcamera"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="44dp"
    android:layout_marginEnd="30dp"
    android:clickable="true"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/fabcall"
    app:srcCompat="@android:drawable/ic_menu_camera" />

```

```

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

```

```

    android:id="@+id/fabcall"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="35dp"
    android:layout_marginEnd="30dp"
    android:clickable="true"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/fabbluetooth"
    app:srcCompat="@android:drawable/ic_menu_call" />

```

```

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

```

```

    android:id="@+id/fabbluetooth"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="270dp"
    android:layout_marginEnd="30dp"
    android:clickable="true"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:srcCompat="@android:drawable/stat_sys_data_bluetooth" />

```

```

</androidx.constraintlayout.widget.ConstraintLayout>

```

FAB_CLOCKWISE.XML:

```

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

    android:fillAfter="true"
    android:interpolator="@android:anim/linear_interpolator">
<rotate
    android:duration="500"
    android:fromDegrees="0"
    android:toDegrees="45"
    android:pivotX="50%"
    android:pivotY="50%"
/>

```

```
</set>
```

FAB_ANTICLOCKWISE.XML:

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

    android:fillAfter="true"
    android:interpolator="@android:anim/linear_interpolator">
    <rotate
        android:duration="500"
        android:fromDegrees="45"
        android:toDegrees="0"
        android:pivotX="50%"
        android:pivotY="50%"
    />

</set>
```

FAB_OPEN.XML:

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android"
    android:fillAfter="true"
    android:interpolator="@android:anim/linear_interpolator">
    <scale
        android:duration="500"
        android:fromXScale="0.0"
        android:fromYScale="0.0"
        android:pivotX="50%"
        android:pivotY="50%"
        android:toXScale="0.8"
        android:toYScale="0.8"
    />
    <alpha
        android:duration="300"
        android:fromAlpha="0.0"
        android:toAlpha="1.0"
        android:interpolator="@android:anim/accelerate_interpolator"
    />

</set>
```

FAB_CLOSE.XML:

```
<?xml version="1.0" encoding="utf-8"?>
<set xmlns:android="http://schemas.android.com/apk/res/android"
    android:fillAfter="true"
    android:interpolator="@android:anim/linear_interpolator">
    <scale
        android:duration="500"
        android:fromXScale="0.8"
        android:fromYScale="0.8"
        android:pivotX="50%"
        android:pivotY="50%"
        android:toXScale="0.0"
        android:toYScale="0.0"
    />
    <alpha
        android:duration="300"
        android:fromAlpha="1.0"
        android:toAlpha="0.0"
        android:interpolator="@android:anim/accelerate_interpolator"
    />
</set>
```

MAIN ACTIVITY.JAVA:

```
package com.example.floatingactionbutton;

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.view.animation.Animation;
import android.view.animation.AnimationUtils;

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

public class MainActivity extends AppCompatActivity {
    Animation fab_open,fab_close,fab_clock,fab_anticlock;
    FloatingActionButton fab_plus,fab_camera,fab_call,fab_bt;
    boolean isOpen,isClose;
    @SuppressLint("ResourceType")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

```

fab_plus=(FloatingActionButton)findViewById(R.id.fabplus);
fab_camera=(FloatingActionButton)findViewById(R.id.fabcamera);
fab_call=(FloatingActionButton)findViewById(R.id.fabcall);
fab_bt=(FloatingActionButton)findViewById(R.id.fabbluetooth);

fab_open= AnimationUtils.loadAnimation(getApplicationContext(),R.animator.fab_open);
fab_close= AnimationUtils.loadAnimation(getApplicationContext(),R.animator.fab_close);
fab_clock= AnimationUtils.loadAnimation(getApplicationContext(),R.animator.fab_clockwise);
fab_anticlock=
AnimationUtils.loadAnimation(getApplicationContext(),R.animator.fab_anticlockwise);

fab_plus.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        if(!isOpen)
        {
            fab_camera.startAnimation(fab_open);
            fab_call.startAnimation(fab_open);
            fab_bt.startAnimation(fab_open);
            fab_plus.startAnimation(fab_clock);
            fab_camera.setClickable(true);
            fab_call.setClickable(true);
            fab_bt.setClickable(true);
            isOpen=true;
        }
        else{
            fab_camera.startAnimation(fab_close);
            fab_call.startAnimation(fab_close);
            fab_bt.startAnimation(fab_close);
            fab_plus.startAnimation(fab_anticlock);
            fab_camera.setClickable(false);
            fab_call.setClickable(false);
            fab_bt.setClickable(false);
            isOpen=false;
        }
    }
});
}
}

```

OUTPUT:





