CSE- 4002 LAB-8 Assignment

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

Faculty Name: Dr. Prabha Selvaraj Mam   **Date:** 9 /11//2021

Student name: Taran Mamidala   **Reg. no.:** 19BCE7346

Distance & Dice App

CODE:

```
package com.example.lab10;
import androidx.annotation.IdRes;
import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.ImageButton;
import android.widget.Toast;
import com.google.android.material.chip.Chip;
import com.google.android.material.chip.ChipGroup;

public class MainActivity extends AppCompatActivity {
    EditText start,end,car,bike,train,walk;
    ImageButton reverse;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
        start = findViewById(R.id.editTextTextPersonName);
end = findViewById(R.id.editTextTextPersonName2);          car =
```

```java
findViewById(R.id.editTextTextPersonName3);          bike =
findViewById(R.id.editTextTextPersonName4);          train =
findViewById(R.id.editTextTextPersonName5);          walk =
findViewById(R.id.editTextTextPersonName6);          reverse =
findViewById(R.id.imageButton);
        ChipGroup chipGroup = findViewById(R.id.chipGroup);
         chipGroup.setOnCheckedChangeListener(new
ChipGroup.OnCheckedChangeListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onCheckedChanged(ChipGroup chipGroup, int i) {
                car.setText("");
bike.setText("");
train.setText("");
walk.setText("");
                Chip chip = chipGroup.findViewById(i);
if (chip != null) {
switch(i){

case 1: car.setText("7 hrs");
break;

case 2: bike.setText("9 hrs");
break;

case 3: train.setText("6 hrs");
break;

case 4: walk.setText("40 hrs");
break;
                }
            }
        }

    });

    reverse.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            String temp = start.getText().toString();
            String temp1 = end.getText().toString();
if(!temp.isEmpty() &&  !temp1.isEmpty()){
```

```
start.setText(temp1);
end.setText(temp);
                }
else{
                Toast.makeText(getApplicationContext(), "Enter start
and end point", Toast.LENGTH_SHORT).show();
                }
            }
        });
    }
}
```

Activity_main.xml

```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">
 <ImageButton
 android:id="@+id/imageButton2"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_marginTop="70dp"
 app:layout_constraintEnd_toStartOf="@+id/imageButton3"
 app:layout_constraintHorizontal_bias="0.5"
 app:layout_constraintStart_toStartOf="parent"
 app:layout_constraintTop_toBottomOf="@+id/textView2"
 tools:ignore="SpeakableTextPresentCheck,TouchTargetSizeCheck" />
 <ImageButton
 android:id="@+id/imageButton3"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 app:layout_constraintBottom_toBottomOf="@+id/imageButton2"
 app:layout_constraintEnd_toStartOf="@+id/imageButton4"
 app:layout_constraintHorizontal_bias="0.5"
```

```xml
            app:layout_constraintStart_toEndOf="@+id/imageButton2"
            app:layout_constraintTop_toTopOf="@+id/imageButton2"
            tools:ignore="SpeakableTextPresentCheck,TouchTargetSizeCheck" />
        <ImageButton
            android:id="@+id/imageButton4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            app:layout_constraintBottom_toBottomOf="@+id/imageButton3"
            app:layout_constraintEnd_toStartOf="@+id/imageButton5"
            app:layout_constraintHorizontal_bias="0.5"
            app:layout_constraintStart_toEndOf="@+id/imageButton3"
            app:layout_constraintTop_toTopOf="@+id/imageButton3"
            app:srcCompat="@drawable/ic_baseline_train_24"
            tools:ignore="SpeakableTextPresentCheck,TouchTargetSizeCheck" />
        <TextView
            android:id="@+id/textView2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="70dp"
            android:text="To"
            app:layout_constraintEnd_toStartOf="@+id/editText2"
            app:layout_constraintHorizontal_bias="0.5"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/textView1" />
        <TextView
            android:id="@+id/textView1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="100dp"
            android:text="From"
            app:layout_constraintEnd_toStartOf="@+id/editText1"
            app:layout_constraintHorizontal_bias="0.5"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
        <EditText
            android:id="@+id/editText1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="#FFFFFF"
            android:ems="10"
            android:inputType="textPersonName"
            android:minHeight="48dp"
            app:layout_constraintBottom_toBottomOf="@+id/textView1"
```

```xml
        app:layout_constraintEnd_toStartOf="@+id/imageButton1"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toEndOf="@+id/textView1"
        app:layout_constraintTop_toTopOf="@+id/textView1"
        tools:ignore="SpeakableTextPresentCheck" />
    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="#FFFFFF"
        android:ems="10"
        android:inputType="textPersonName"
        android:minHeight="48dp"
        app:layout_constraintBottom_toBottomOf="@+id/textView2"
        app:layout_constraintEnd_toEndOf="@+id/editText1"
        app:layout_constraintStart_toStartOf="@+id/editText1"
        app:layout_constraintTop_toTopOf="@+id/textView2"
        tools:ignore="SpeakableTextPresentCheck" />
    <ImageButton
        android:id="@+id/imageButton1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toTopOf="@+id/editText2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toEndOf="@+id/editText1"
        app:layout_constraintTop_toBottomOf="@+id/editText1"
        app:srcCompat="@drawable/ic_baseline_swap_vert_24"
        tools:ignore="TouchTargetSizeCheck,SpeakableTextPresentCheck" />
    <ImageButton
        android:id="@+id/imageButton5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="@+id/imageButton4"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toEndOf="@+id/imageButton4"
        app:layout_constraintTop_toTopOf="@+id/imageButton4"
        app:srcCompat="@drawable/ic_baseline_directions_walk_24"

tools:ignore="SpeakableTextPresentCheck,SpeakableTextPresentCheck,TouchTarg
etSizeCheck" />
    <TextView
```

```xml
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        app:layout_constraintEnd_toEndOf="@+id/imageButton2"
        app:layout_constraintStart_toStartOf="@+id/imageButton2"
        app:layout_constraintTop_toBottomOf="@+id/imageButton2" />
    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="@+id/textView3"
        app:layout_constraintEnd_toEndOf="@+id/imageButton3"
        app:layout_constraintStart_toStartOf="@+id/imageButton3"
        app:layout_constraintTop_toTopOf="@+id/textView3" />
    <TextView
        android:id="@+id/textView5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="@+id/textView4"
        app:layout_constraintEnd_toEndOf="@+id/imageButton4"
        app:layout_constraintStart_toStartOf="@+id/imageButton4"
        app:layout_constraintTop_toTopOf="@+id/textView4" />
    <TextView
        android:id="@+id/textView6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="@+id/textView5"
        app:layout_constraintEnd_toEndOf="@+id/imageButton5"
        app:layout_constraintStart_toStartOf="@+id/imageButton5"
        app:layout_constraintTop_toTopOf="@+id/textView5" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Output:

Design an Application to create one FAB and 4 image view. When the FAB is clicked each image should be applied with animation property scale, rotate, translate and alpha property respectively and when clicked again it should perform the same in reverse.

CODE:

MainActivity.java

```java
package com.example.lab10;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
import android.content.DialogInterface;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
 @Override
 protected void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);
 TextView t1 = findViewById(R.id.textView1);
 TextView t2 = findViewById(R.id.textView2);
 Button b1 = findViewById(R.id.button1);
```

```java
Button b2 = findViewById(R.id.button2);
Button b3 = findViewById(R.id.button3);
b1.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
t1.setText(String.valueOf((int)(Math.random()*6.99)));
}
});
b2.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
t2.setText(String.valueOf((int)(Math.random()*6.99)));
}
});
b3.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
int i = 0;

if(Integer.parseInt(t1.getText().toString())>Integer.parseInt(t2.getText().
toString()))
i=1;
else

if(Integer.parseInt(t1.getText().toString())<Integer.parseInt(t2.getText().
toString()))
i=2;
AlertDialog.Builder builder = new
AlertDialog.Builder(MainActivity.this);
if(i==0) {
builder.setTitle("Tie");
builder.setMessage("Tie between the players 1 & 2");
} else {
builder.setTitle("Winner");
builder.setMessage("Winner in the roll dice is player:
"
+ i);
}
builder.setPositiveButton("Close APP", new
DialogInterface.OnClickListener() {
public void onClick(DialogInterface dialog, int
id) {
finish();
```

```java
      }
    });
    builder.setNegativeButton("Re roll dice", new
    DialogInterface.OnClickListener() {
    public void onClick(DialogInterface dialog, int
id) {
    dialog.cancel();
    }
    });
    AlertDialog alert = builder.create();
    alert.show();
    }
    });
    }
}
```
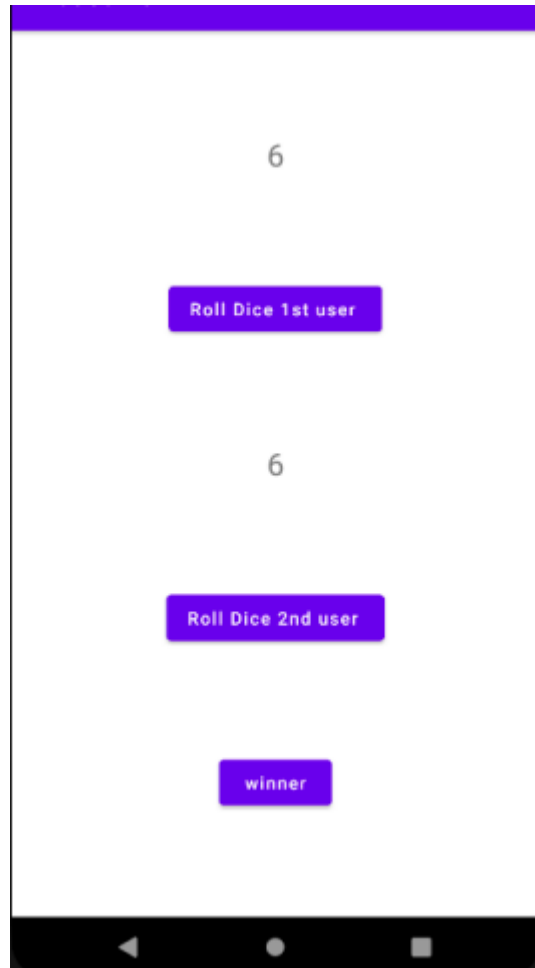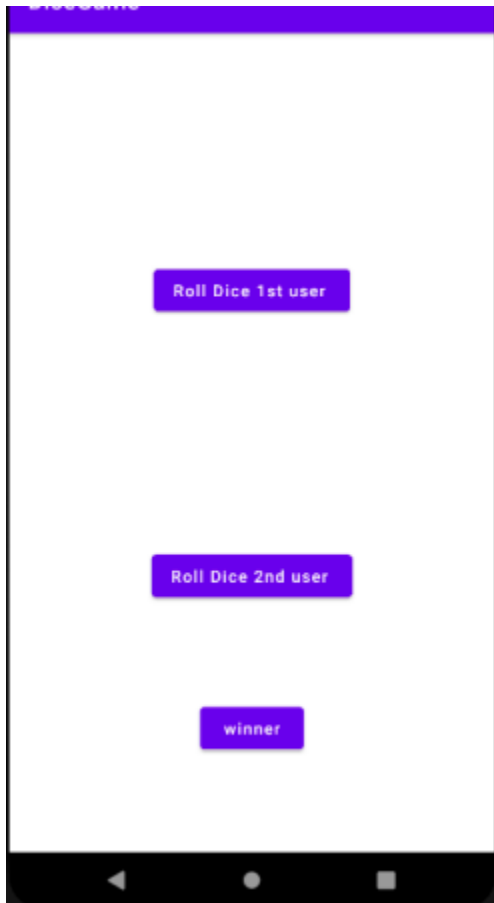
Activity_main.xml

```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">
 <Button
 android:id="@+id/button1"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:text="Roll Dice 1st user "
 android:textAllCaps="false"
 app:layout_constraintBottom_toTopOf="@+id/textView2"
 app:layout_constraintEnd_toEndOf="parent"
 app:layout_constraintHorizontal_bias="0.5"
 app:layout_constraintStart_toStartOf="parent"
 app:layout_constraintTop_toBottomOf="@+id/textView1" />
 <Button
 android:id="@+id/button2"
```
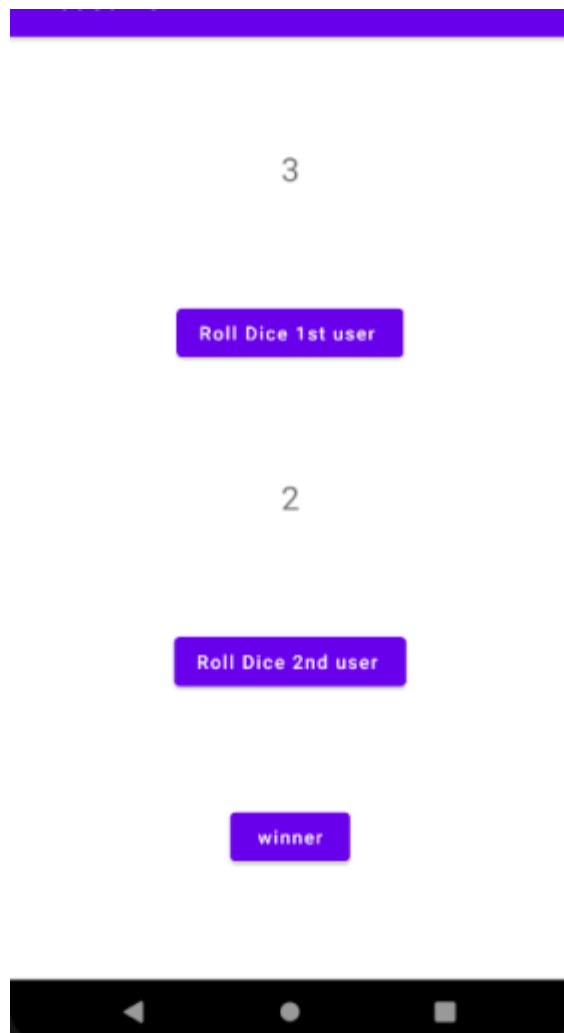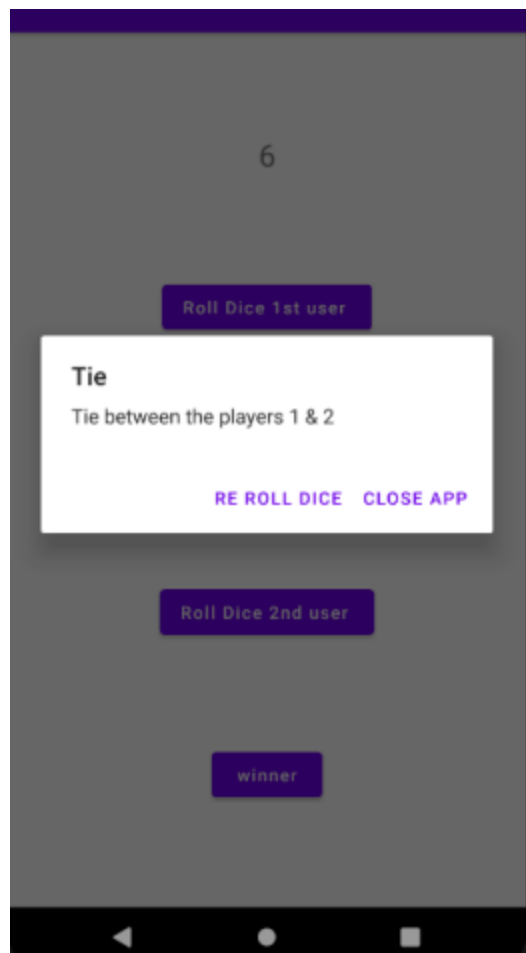
```xml
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Roll Dice 2nd user "
    android:textAllCaps="false"
    app:layout_constraintBottom_toTopOf="@+id/button3"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView2" />
<Button
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="winner"
    android:textAllCaps="false"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/button2" />
<TextView
    android:id="@+id/textView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textSize="24sp"
    app:layout_constraintBottom_toTopOf="@+id/button1"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textSize="24sp"
    app:layout_constraintBottom_toTopOf="@+id/button2"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/button1" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Output:

DiceGame

Roll Dice 1st user

Roll Dice 2nd user

winner

6

Roll Dice 1st user

6

Roll Dice 2nd user

winner

Left screen

6

Roll Dice 1st user

Tie

Tie between the players 1 & 2

RE ROLL DICE   CLOSE APP

Roll Dice 2nd user

winner

Right screen

3

Roll Dice 1st user

2

Roll Dice 2nd user

winner

3

Roll Dice 1st user

Winner

Winner in the roll dice is player: 1

RE ROLL DICE   CLOSE APP

Roll Dice 2nd user

winner