

**CSE- 4002 LAB-5 Assignment****Academic year:** 2020-2021**Semester:** WIN**Faculty Name:** Dr. Prabha Selvaraj Mam**Date:** 10 /30//2021**Student name:** Taran Mamidala**Reg. no.:** 19BCE7346

## Play Cards App

Design an App that displays 5 random numbers of cards when the select cards button is pressed in the TextView, on clicking the sort button, these numbers need to be sent to the second activity. The sorted numbers need to be displayed in TextView and the sum of the numbers need to be displayed.

**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">

<TextView
    android:id="@+id/T6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="76dp"
    android:text="PlayCards App"
    android:textColor="#201F1F"
    android:textSize="20sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.483"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

```

```
<LinearLayout
    android:id="@+id/linearLayout"
    android:layout_width="407dp"
    android:layout_height="93dp"
    android:layout_marginTop="172dp"
    android:orientation="horizontal"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <EditText
        android:id="@+id/n1"
        android:layout_width="52dp"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_weight="1"
        android:ems="10"
        android:inputType="textPersonName"
        android:minHeight="48dp"
        tools:ignore="SpeakableTextPresentCheck" />

    <EditText
        android:id="@+id/n2"
        android:layout_width="52dp"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_weight="1"
        android:ems="10"
        android:inputType="textPersonName"
        android:minHeight="48dp"
        tools:ignore="SpeakableTextPresentCheck" />

    <EditText
        android:id="@+id/n3"
        android:layout_width="52dp"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_weight="1"
        android:ems="10"
        android:inputType="textPersonName"
        android:minHeight="48dp"
        tools:ignore="SpeakableTextPresentCheck" />

    <EditText
        android:id="@+id/n4"
        android:layout_width="52dp"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:layout_weight="1"
```

```
        android:ems="10"
        android:inputType="textPersonName"
        android:minHeight="48dp"
        tools:ignore="SpeakableTextPresentCheck,SpeakableTextPresentCheck" />

<EditText
    android:id="@+id/n5"
    android:layout_width="52dp"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:layout_weight="1"
    android:ems="10"
    android:inputType="textPersonName"
    android:minHeight="48dp"
    tools:ignore="SpeakableTextPresentCheck,SpeakableTextPresentCheck" />

</LinearLayout>

<Button
    android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="340dp"
    android:background="#7A7474"
    android:backgroundTint="#6C6767"
    android:backgroundTintMode="add"
    android:text="Select Cards"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/b2"
    app:layout_constraintHorizontal_bias="0.423"
    app:layout_constraintStart_toStartOf="parent" />

<Button
    android:id="@+id/b2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="168dp"
    android:layout_marginEnd="64dp"
    android:background="#837E7E"
    android:backgroundTint="#6E6868"
    android:backgroundTintMode="src_over"
    android:text="Sort"
    android:textColor="#000000"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toTopOf="@+id/linearLayout" />

<TextView
    android:id="@+id/T7"
    android:layout_width="wrap_content"
```

```

    android:layout_height="wrap_content"
    android:layout_marginStart="52dp"
    android:layout_marginBottom="184dp"
    android:text="SUM"
    android:textColor="#101010"
    android:textSize="20sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/sn"
    app:layout_constraintHorizontal_bias="0.194"
    app:layout_constraintStart_toStartOf="parent" />

```

```
<EditText
```

```

    android:id="@+id/sn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="44dp"
    android:layout_marginBottom="172dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:minHeight="48dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    tools:ignore="SpeakableTextPresentCheck" />

```

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

### MainActivity.java

```

package com.example.cardapp;

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

import java.util.Random;

public class MainActivity extends AppCompatActivity {
    EditText t1, t2, t3, t4, t5, t6, t7, t8;
    Button b1, b2;
    int cards[] = new int[5];
    Random rand = new Random();

    @SuppressLint("WrongViewCast")

```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    t1 = findViewById(R.id.n1);
    t2 = findViewById(R.id.n2);
    t3 = findViewById(R.id.n3);
    t4 = findViewById(R.id.n4);
    t5 = findViewById(R.id.n5);
    t6 = findViewById(R.id.T6);
    t7 = findViewById(R.id.T7);
    t8 = findViewById(R.id.sn);
    b1 = findViewById(R.id.B1);
    b2 = findViewById(R.id.B2);

    b1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            for (int i = 0; i < 5; i++) {
                cards[i] = rand.nextInt(14);
            }
            t1.setText(String.valueOf(cards[0]));
            t2.setText(String.valueOf(cards[1]));
            t3.setText(String.valueOf(cards[2]));
            t4.setText(String.valueOf(cards[3]));
            t5.setText(String.valueOf(cards[4]));
        }
    });
    b2.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent i = new Intent(getApplicationContext(), MainActivity2.class);

            i.putExtra("card1", t1.getText().toString());
            i.putExtra("card2", t2.getText().toString());
            i.putExtra("card3", t3.getText().toString());
            i.putExtra("card4", t4.getText().toString());
            i.putExtra("card5", t5.getText().toString());
            startActivityForResult(i, 2);
        }
    });
}

protected void onActivityResult(int requestCode, int resultCode, Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    if (requestCode == 2) {
        if (resultCode == RESULT_OK) {
            t1.setText(data.getExtras().getString("c1"));
        }
    }
}
```

```

        t2.setText(data.getExtras().getString("c2"));
        t3.setText(data.getExtras().getString("c3"));
        t4.setText(data.getExtras().getString("c4"));
        t5.setText(data.getExtras().getString("c5"));
        t8.setText(data.getExtras().getString("sum"));
    }
}
}
}

```

### activity\_main2.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=".MainActivity2">
    <EditText
        android:id="@+id/C3"
        android:layout_width="48dp"
        android:layout_height="45dp"
        android:layout_marginStart="2dp"
        android:layout_marginTop="200dp"
        android:layout_marginEnd="8dp"
        android:layout_marginBottom="88dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/B3"
        app:layout_constraintEnd_toStartOf="@+id/C4"
        app:layout_constraintStart_toEndOf="@+id/C2"
        app:layout_constraintTop_toTopOf="parent" />
    <EditText
        android:id="@+id/C4" android:layout_width="48dp"
        android:layout_height="45dp"
        android:layout_marginStart="2dp"
        android:layout_marginTop="168dp"
        android:layout_marginEnd="14dp"
        android:layout_marginBottom="518dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toStartOf="@+id/C5"
        app:layout_constraintStart_toEndOf="@+id/C3"
        app:layout_constraintTop_toTopOf="parent" />

```

```
<EditText
    android:id="@+id/C5"
    android:layout_width="48dp"
    android:layout_height="44dp"
    android:layout_marginStart="10dp"
    android:layout_marginTop="168dp"
    android:layout_marginEnd="64dp"
    android:layout_marginBottom="519dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/C4"
    app:layout_constraintTop_toTopOf="parent" />

<EditText
    android:id="@+id/C2"
    android:layout_width="48dp"
    android:layout_height="45dp"
    android:layout_marginStart="19dp"
    android:layout_marginTop="168dp"
    android:layout_marginEnd="12dp"
    android:layout_marginBottom="160dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toTopOf="@+id/B3"
    app:layout_constraintEnd_toStartOf="@+id/C3"
    app:layout_constraintStart_toEndOf="@+id/C1"
    app:layout_constraintTop_toTopOf="parent" />

<EditText
    android:id="@+id/C1" android:layout_width="48dp"
    android:layout_height="44dp"
    android:layout_marginStart="35dp"
    android:layout_marginTop="168dp"
    android:layout_marginEnd="19dp"
    android:layout_marginBottom="519dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/C2"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<Button
    android:id="@+id/B3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="139dp"
    android:layout_marginTop="70dp"
    android:layout_marginEnd="184dp"
    android:layout_marginBottom="350dp"
```

```
        android:text="REPLY"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/C3" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

### MainActivity2.java

```
package com.example.cardApp;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle; import
    android.view.View; import
    android.widget.Button; import
    android.widget.EditText;
public class MainActivity2 extends AppCompatActivity {
    EditText c1,c2,c3,c4,c5;
    Button b3;
    String temp;
    int sum = 0;
    String[] sortedCards = new String[5];
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        Bundle extras = getIntent().getExtras();
        c1 = findViewById(R.id.C1);
        c2 = findViewById(R.id.C2);
        c3 = findViewById(R.id.C3);
        c4 = findViewById(R.id.C4);
        c5 = findViewById(R.id.C5);
        b3 = findViewById(R.id.B3);
        String card1 = extras.getString("Card1");
        String card2 = extras.getString("Card2");
        String card3 = extras.getString("Card3");
        String card4 = extras.getString("Card4");
        String card5 = extras.getString("Card5");
        sortedCards[0] = card1;
        sortedCards[1] = card2;
        sortedCards[2] = card3;
        sortedCards[3] = card4;
        sortedCards[4] = card5;
        for (int i = 0; i < 5; i++) {
            for (int j = 0; j < 5; j++) {
                if (Integer.parseInt(sortedCards[i]) <
```



```
        Integer.parseInt(sortedCards[j])) {
            temp = sortedCards[i];
            sortedCards[i] = sortedCards[j];
            sortedCards[j] = temp;
        }
    }
}
for (int i = 0; i < 5; i++) {
    sum += Integer.parseInt(sortedCards[i]);
}
c1.setText(sortedCards[0]);
c2.setText(sortedCards[1]);
c3.setText(sortedCards[2]);
c4.setText(sortedCards[3]);
c5.setText(sortedCards[4]);
b3.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent i = new Intent(getApplicationContext(),
            MainActivity.class);
        i.putExtra("c1", sortedCards[0]);
        i.putExtra("c2", sortedCards[1]);
        i.putExtra("c3", sortedCards[2]);
        i.putExtra("c4", sortedCards[3]);
        i.putExtra("c5", sortedCards[4]);
        i.putExtra("sum", String.valueOf(sum));
        setResult(RESULT_OK, i);
        finish();
    }
});
}
```

OUTPUT:

19BCE7346



Taran



1 6 9 23 33

9 6 1 33 23

1 6 9 23 33

SELECT CARDS

SORT

SELECT CARDS

SORT

REPLY

SUM 72

SUM