

# Mobile Application Development

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## Questions:

### 1. Display text message using toast

MainActivity.java

```
package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(getApplicationContext(),"Hello
World!",Toast.LENGTH_SHORT).show();
    }
}
```

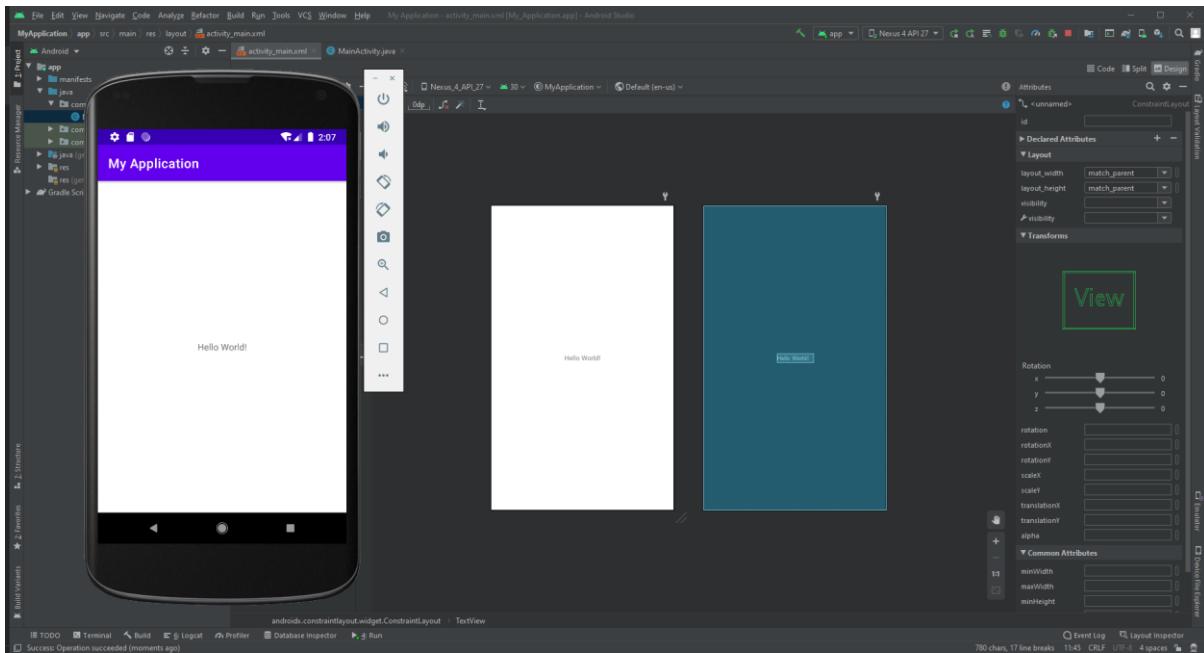
activity\_main.xml

```
<?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:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

## OUTPUT



## 2. Create different types of text views. Take the screenshot to find the difference.

### 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/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="TextView"
        tools:layout_editor_absoluteX="68dp"
        tools:layout_editor_absoluteY="16dp" />

    <EditText
        android:id="@+id/editTextTextPersonName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:text="Plain Text"
        tools:layout_editor_absoluteX="68dp"
        tools:layout_editor_absoluteY="35dp" />
```

```
<EditText
    android:id="@+id/editTextTextPassword"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textPassword"
    android:text="Password"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="80dp" />

<EditText
    android:id="@+id/editTextNumberPassword"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="numberPassword"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="125dp"
    tools:text="456456" />

<EditText
    android:id="@+id/editTextTextEmailAddress"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textEmailAddress"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="170dp"
    tools:text="fakemail@hotmail.com" />

<EditText
    android:id="@+id/editTextPhone"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="phone"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="215dp"
    tools:text="9876543210" />

<EditText
    android:id="@+id/editTextTextPostalAddress"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textPostalAddress"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="260dp"
    tools:text="123, fake st, fake city" />

<EditText
    android:id="@+id/editTextTextMultiLine"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:gravity="start|top"
    android:inputType="textMultiLine"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="305dp"
```

```
        tools:text="Mulit line text" />

<EditText
    android:id="@+id/editTextTime"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="time"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="350dp"
    tools:text="12:00" />

<EditText
    android:id="@+id/editTextDate"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="date"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="395dp"
    tools:text="07/03/2021" />

<EditText
    android:id="@+id/editTextNumber"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="number"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="440dp"
    tools:text="948465747574" />

<EditText
    android:id="@+id/editTextNumberSigned"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="numberSigned"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="485dp"
    tools:text="484545" />

<EditText
    android:id="@+id/editTextNumberDecimal"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="numberDecimal"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="530dp"
    tools:text="45454" />

<AutoCompleteTextView
    android:id="@+id/autoCompleteTextView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="AutoCompleteTextView"
    tools:layout_editor_absoluteX="68dp"
    tools:layout_editor_absoluteY="575dp" />
```

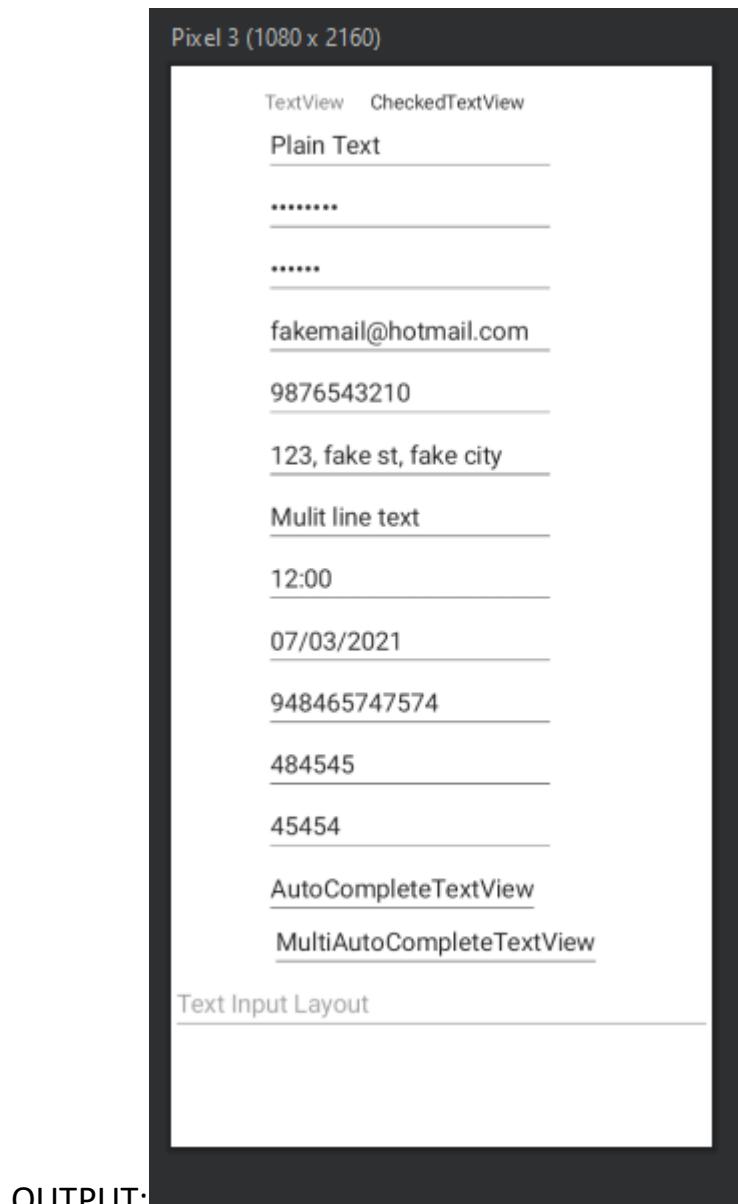
```
<MultiAutoCompleteTextView
    android:id="@+id/multiAutoCompleteTextView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="MultiAutoCompleteTextView"
    tools:layout_editor_absoluteX="72dp"
    tools:layout_editor_absoluteY="614dp" />

<CheckedTextView
    android:id="@+id/checkedTextView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="CheckedTextView"
    tools:layout_editor_absoluteX="145dp"
    tools:layout_editor_absoluteY="16dp" />

<com.google.android.material.textfield.TextInputLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    tools:layout_editor_absoluteX="73dp"
    tools:layout_editor_absoluteY="686dp">

</com.google.android.material.textfield.TextInputLayout>

<com.google.android.material.textfield.TextInputEditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Text Input Layout"
    tools:layout_editor_absoluteX="0dp"
    tools:layout_editor_absoluteY="659dp" />
</androidx.constraintlayout.widget.ConstraintLayout>
```



### 3. Read the Name, Regno, Department and college. Display welcome name.

MainActivity.java

```
package com.example.registration;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    EditText name, regno, dept, colg;
    Button submit;
    @Override
```

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    name = findViewById(R.id.name);
    regno = findViewById(R.id.regno);
    dept = findViewById(R.id.dept);
    colg = findViewById(R.id.colg);
    submit = findViewById(R.id.submit);
    submit.setOnClickListener(new View.OnClickListener(){
        @Override
        public void onClick(View v){
            Toast.makeText(getApplicationContext(), ("Welcome
"+name.getText()),Toast.LENGTH_LONG).show();
        }
    });
}
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">

    <EditText
        android:id="@+id/name"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="84dp"
        android:layout_marginLeft="84dp"
        android:layout_marginTop="196dp"
        android:ems="10"
        android:hint="enter name"
        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/pwd"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="84dp"
        android:layout_marginLeft="84dp"
        android:layout_marginTop="32dp"
        android:ems="10"
        android:hint="enter password"
        android:inputType="textPassword"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/name" />

    <Button
        android:id="@+id/submit"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="142dp"
```

```
        android:layout_marginLeft="142dp"
        android:layout_marginTop="64dp"
        android:text="SUBMIT"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/pwd" />
    </androidx.constraintlayout.widget.ConstraintLayout>
```

OUTPUT:

23:55 3

VoLTE

## Lab-1

Name

---

Regno

---

DClg

---

BUTTON

23:55 3

VoLTE

## Lab-1

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BUTTON

Darsi s s v Gopi Krishna

**4.Create a login page to read the User id and password. Check for validity and display “Login Successful” or “Login Failed”.**

MainActivity.java

**5.Read the two numbers using text to perform ADD, SUBTRACT, MULTIPLY and DIVIDE and display the output in a Text.**

MainActivity.java

```
package com.example.calculator;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {
    EditText t1,t2,t3;
    Button b1,b2,b3,b4;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        t1=findViewById(R.id.T1);
        t2=findViewById(R.id.T2);
        t3=findViewById(R.id.T3);
        b1=findViewById(R.id.B1);
        b2=findViewById(R.id.B2);
```

```
b3=findViewById(R.id.B3);

b4=findViewById(R.id.B4);

b1.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        double a = Double.parseDouble(t1.getText().toString());

        double b = Double.parseDouble(t2.getText().toString());

        double c = a + b;

        t3.setText(String.valueOf(c));

    }

});

b2.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        double a = Double.parseDouble(t1.getText().toString());

        double b = Double.parseDouble(t2.getText().toString());

        double c = a - b;

        t3.setText(String.valueOf(c));

    }

});

b3.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        double a = Double.parseDouble(t1.getText().toString());

        double b = Double.parseDouble(t2.getText().toString());

        double c = a * b;

        t3.setText(String.valueOf(c));

    }

});
```

```
b4.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View v) {  
        double a = Double.parseDouble(t1.getText().toString());  
        double b = Double.parseDouble(t2.getText().toString());  
        double c = a / b;  
        t3.setText(String.valueOf(c));  
    }  
});  
}  
}  
}  
}
```

### 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">
```

```
<EditText  
    android:id="@+id/T2"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="24dp"  
    android:ems="10"  
    android:hint="Enter a number"  
    android:inputType="number"
```

```
    app:layout_constraintStart_toStartOf="@+id/T1"
    app:layout_constraintTop_toBottomOf="@+id/T1" />

<EditText
    android:id="@+id/T1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="108dp"
    android:layout_marginEnd="86dp"
    android:autofillHints=""
    android:ems="10"
    android:hint="Enter a number"
    android:inputType="number"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<Button
    android:id="@+id/B1"
    android:layout_width="wrap_content"
    android:layout_height="48dp"
    android:layout_marginTop="32dp"
    android:text="+"
    app:layout_constraintStart_toStartOf="@+id/T2"
    app:layout_constraintTop_toBottomOf="@+id/T2" />

<Button
    android:id="@+id/B2"
    android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:text="-"
        app:layout_constraintEnd_toEndOf="@+id/T2"
        app:layout_constraintTop_toBottomOf="@+id/T2" />

<Button
        android:id="@+id/B3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text ="*"
        app:layout_constraintStart_toStartOf="@+id/B1"
        app:layout_constraintTop_toBottomOf="@+id/B1" />

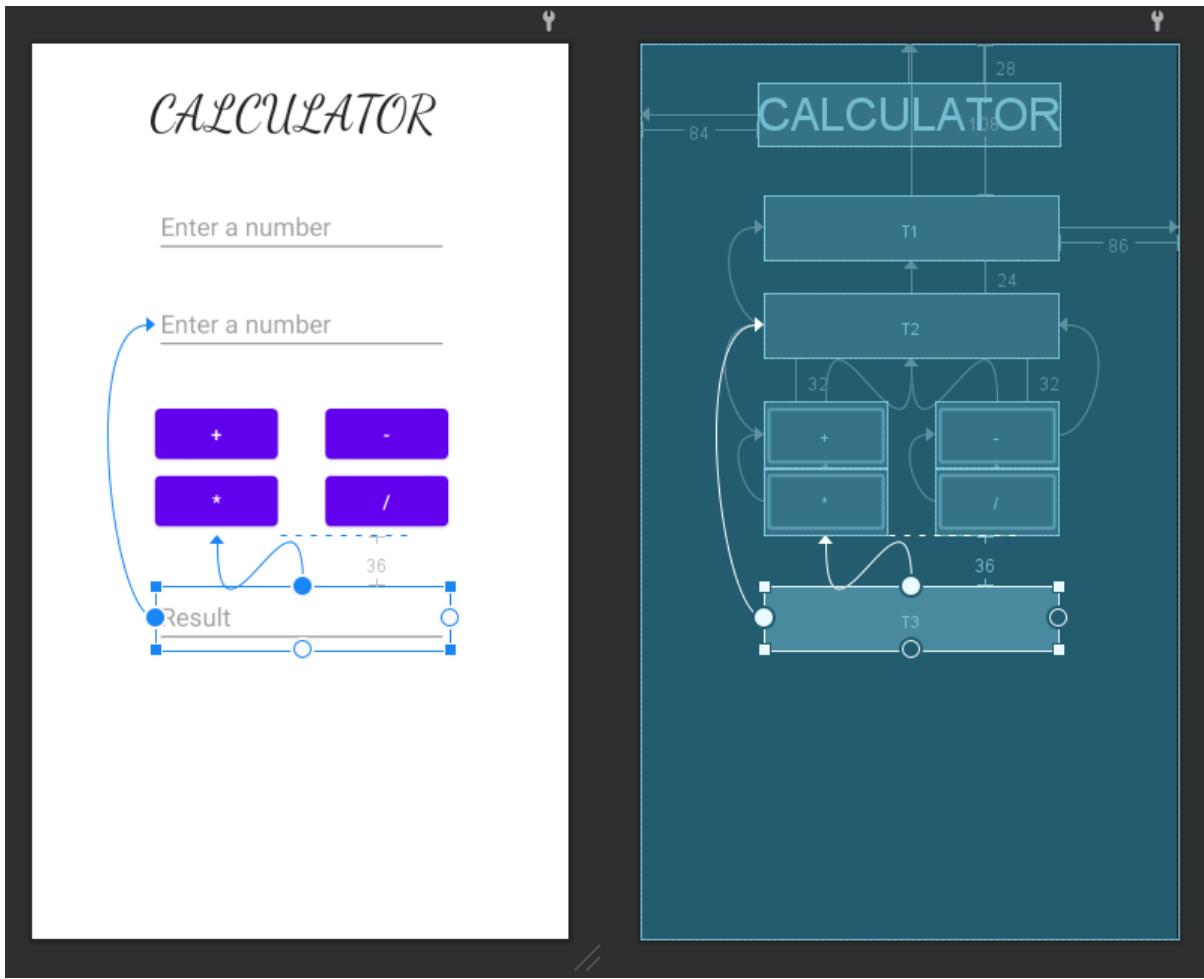
<Button
        android:id="@+id/B4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text = "/"
        app:layout_constraintStart_toStartOf="@+id/B2"
        app:layout_constraintTop_toBottomOf="@+id/B2" />

<EditText
        android:id="@+id/T3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="36dp"
        android:ems="10"
        android:hint="Result"
```

```
    android:importantForAutofill="no"
    android:inputType="number"
    app:layout_constraintStart_toStartOf="@+id/T2"
    app:layout_constraintTop_toBottomOf="@+id/B3" />

<TextView
    android:id="@+id/textView"
    android:layout_width="216dp"
    android:layout_height="45dp"
    android:layout_marginStart="84dp"
    android:layout_marginTop="28dp"
    android:fontFamily="cursive"
    android:text="CALCULATOR"
    android:textAppearance="@style/TextAppearance.AppCompat.Large"
    android:textSize="36sp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

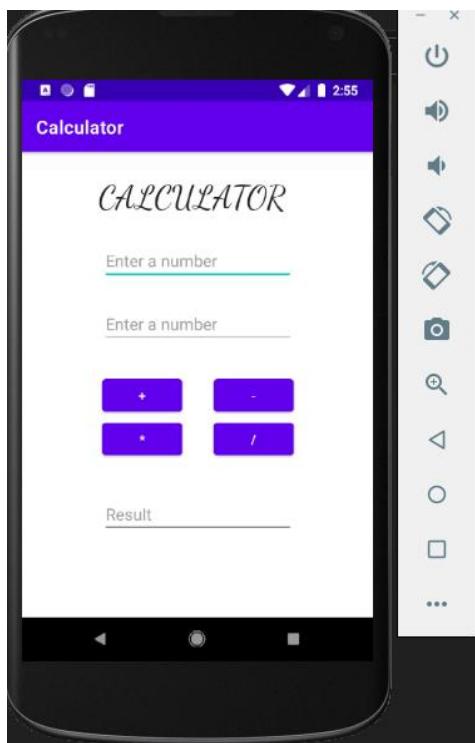
</androidx.constraintlayout.widget.ConstraintLayout>
```



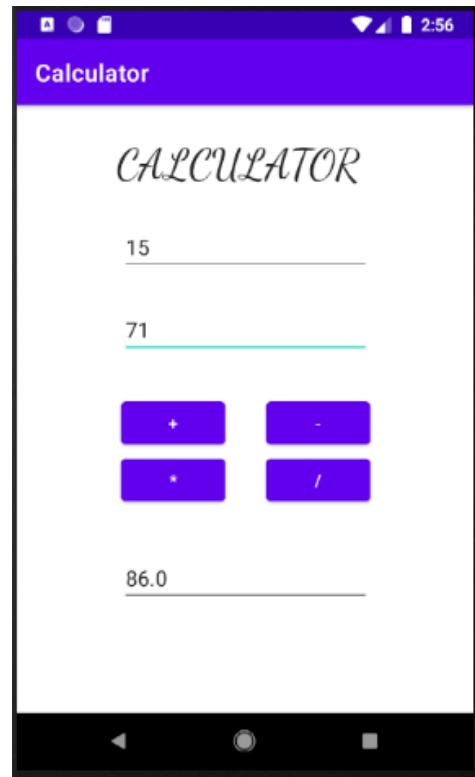
OUTPUT:

**LAYOUT**

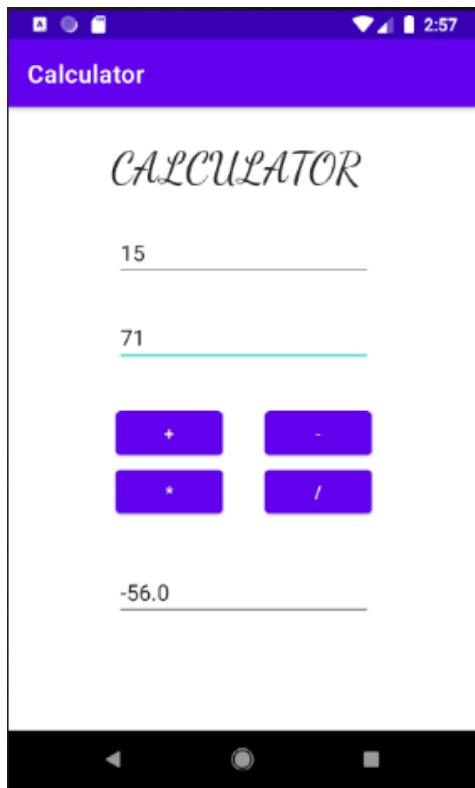
**ADDITION**



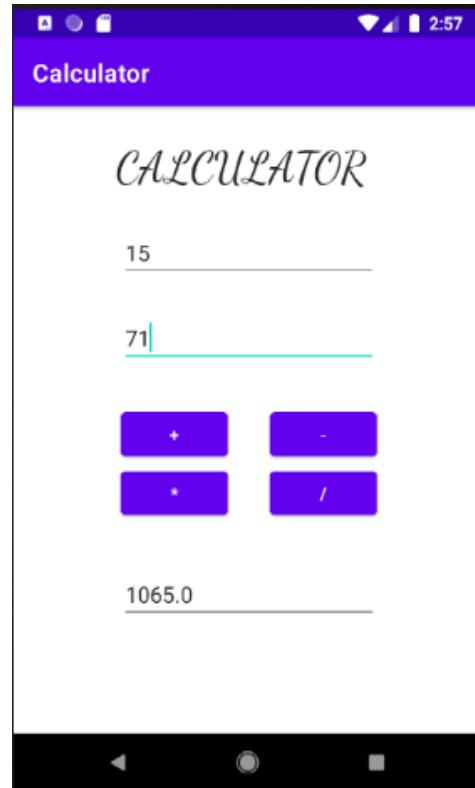
SUBTRACTION

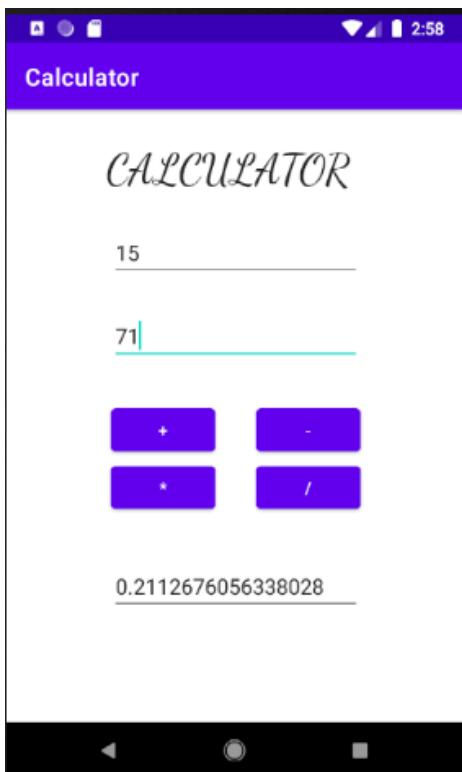


MULTIPLICATION



DIVISION





```
public class MainActivity extends AppCompatActivity {
    ImageView img;
    Button b;
    int flag = 0;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        img = (ImageView) findViewById(R.id.imageView1);
        b = (Button) findViewById(R.id.button1);

        b.setOnClickListener(new View.OnClickListener() {

            @Override
            public void onClick(View v) {
                // TODO Auto-generated method stub

                if (flag == 0) {
                    img.setImageResource(R.drawable.home1);
                    flag = 1;
                } else if (flag == 1) {
                    img.setImageResource(R.drawable.home2);
                    flag = 2;
                } else if (flag == 2) {
                    img.setImageResource(R.drawable.home3);
                    flag = 0;
                }
            }
        });
    }
}
```

```
@Override  
protected void onStart() {  
    super.onStart();  
    Log.d(LOG_TAG, "onStart");  
}  
  
@Override  
protected void onPause() {  
    super.onPause();  
    Log.d(LOG_TAG, "onPause");  
}  
  
@Override  
protected void onRestart() {  
    super.onRestart();  
    Log.d(LOG_TAG, "onRestart");  
}  
  
@Override  
protected void onResume() {  
    super.onResume();  
    Log.d(LOG_TAG, "onResume");  
}  
  
@Override  
protected void onStop() {  
    super.onStop();  
    Log.d(LOG_TAG, "onStop");  
}  
  
@Override  
protected void onDestroy() {
```

---

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## MOBILE APPLICATION DEVELOPMENT:

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REGNO: 19BCE7360

- 1) Design the following APP for the IOT store. The cost of Arduino Uno is 500RS, the cost of WIFI module is 250RS and the Bluetooth module is 200RS. Based on the quantity compute the Amount payable when submit button is clicked, when clear is clicked clear all the Editboxes.

**Java Code:**

```
package com.example.lab21;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
    EditText T1, T2, T3, T4;
    Button B1,B2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        T1 = findViewById(R.id.uno);
        T2 = findViewById(R.id.wifi);
        T3 = findViewById(R.id.bluetooth);
        T4 = findViewById(R.id.Total);
        B1 = findViewById(R.id.submitButton);
        B2 = findViewById(R.id.clearButton);
        B1.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
                int a = Integer.parseInt(T1.getText().toString());
                int b = Integer.parseInt(T2.getText().toString());
                int c = Integer.parseInt(T3.getText().toString());
                int x = a*500;
                int y = b*250;
                int z = c*200;
                int s = x+y+z;
                T4.setText(String.valueOf(s));
            }
        });
        B2.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v)
            {
```

```
    T1.setText("");  
    T2.setText("");  
    T3.setText("");  
    T4.setText("");  
}  
});  
}  
}
```

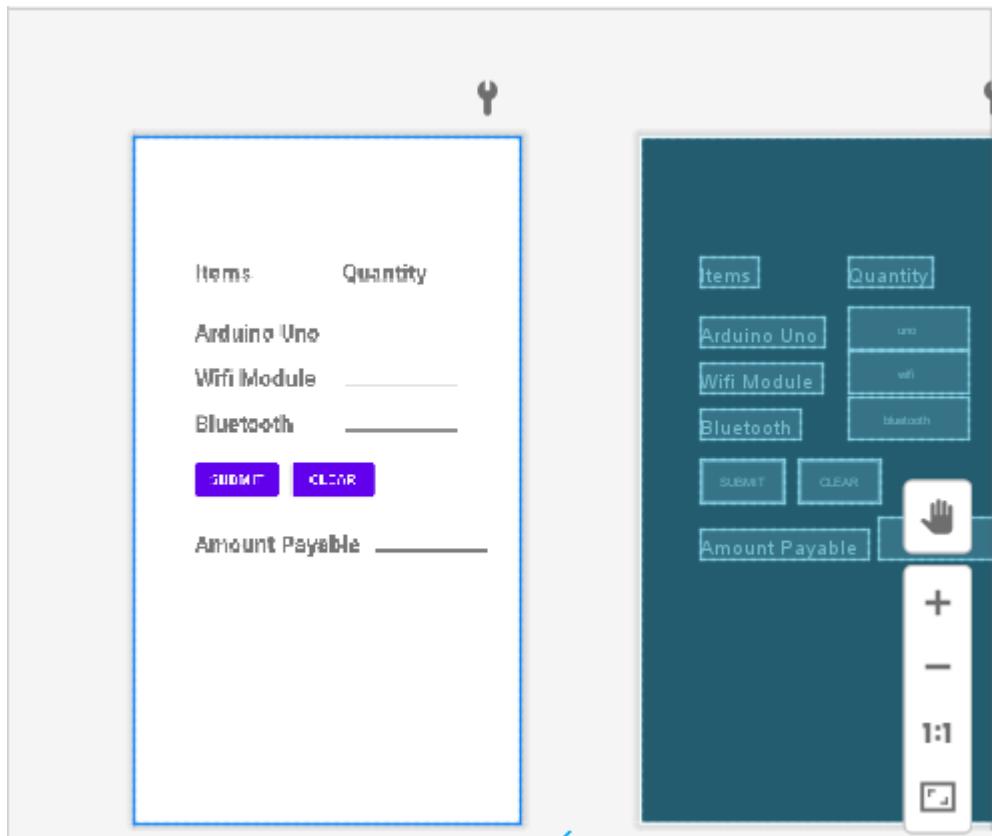
## XML:

```
<?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">
    <EditText
        android:id="@+id/bluetooth"
        android:layout_width="128dp"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="@+id/textView5"
        app:layout_constraintStart_toStartOf="@+id/textView2" />
    <EditText
        android:id="@+id/Total"
        android:layout_width="128dp"
        android:layout_height="wrap_content"
        android:layout_marginStart="12dp"
        android:layout_marginLeft="12dp"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="@+id/textView6"
        app:layout_constraintStart_toEndOf="@+id/textView6" />
    <EditText
        android:id="@+id/wifi"
        android:layout_width="128dp"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="@+id/textView4"
        app:layout_constraintStart_toStartOf="@+id/textView2" />
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="64dp"
        android:layout_marginLeft="64dp"
        android:layout_marginTop="128dp"
        android:text="Items"
        android:textSize="24sp"
        android:textStyle="bold"
        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:layout_marginStart="96dp"
    android:layout_marginLeft="96dp"
    android:layout_marginTop="128dp"
    android:text="Quantity"
    android:textSize="24sp"
    android:textStyle="bold"
    app:layout_constraintStart_toEndOf="@+id/textView"
    app:layout_constraintTop_toTopOf="parent" />
<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="32dp"
    android:text="Arduino Uno"
    android:textSize="24sp"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="@+id/textView"
    app:layout_constraintTop_toBottomOf="@+id/textView" />
<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="16dp"
    android:text="Wifi Module"
    android:textSize="24sp"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="@+id/textView3"
    app:layout_constraintTop_toBottomOf="@+id/textView3" />
<TextView
    android:id="@+id/textView5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="16dp"
    android:text="Bluetooth"
    android:textSize="24sp"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="@+id/textView4"
    app:layout_constraintTop_toBottomOf="@+id/textView4" />
<TextView
    android:id="@+id/textView6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="28dp"
    android:text="Amount Payable"
    android:textSize="24sp"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="@+id/submitButton"
    app:layout_constraintTop_toBottomOf="@+id/submitButton" />
<EditText
    android:id="@+id/uno"
    android:layout_width="128dp"
    android:layout_height="wrap_content"
```

```
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="@+id/textView3"
        app:layout_constraintStart_toStartOf="@+id/textView2" />
<Button
    android:id="@+id/submitButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="20dp"
    android:text="Submit"
    app:layout_constraintStart_toStartOf="@+id/textView5"
    app:layout_constraintTop_toBottomOf="@+id/textView5" />
<Button
    android:id="@+id/clearButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="13dp"
    android:layout_marginLeft="13dp"
    android:text="Clear"
    app:layout_constraintBottom_toBottomOf="@+id/submitButton"
    app:layout_constraintStart_toEndOf="@+id/submitButton" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

**OUTPUT:**





Items	Quantity
-------	----------

Arduino Uno	_____
-------------	-------

Wifi Module	_____
-------------	-------

Bluetooth	_____
-----------	-------

**SUBMIT**

**CLEAR**

Amount Payable	_____
----------------	-------





Items	Quantity
Arduino Uno	10
Wifi Module	20
Bluetooth	30

SUBMIT

CLEAR

Amount Payable 16000



## 2)Design a Currency converter APP.1rs=

### JAVA CODE:

```
package com.example.lab21;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
public class MainActivity extends AppCompatActivity {
    EditText T1, T2;
    RadioGroup RG;
    RadioButton RB;
    Button B;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        T1 = findViewById(R.id.input);
        T2 = findViewById(R.id.result);
        RG = findViewById(R.id.radioGroup);
        B = findViewById(R.id.convertButton);
        B.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int radioId = RG.getCheckedRadioButtonId();
                RB = findViewById(radioId);
                float rs = Float.parseFloat(T1.getText().toString());
                String str = RB.getText().toString();
                if(str.equals("USD"))
                    T2.setText(String.valueOf(rs*14/1000));
                else if(str.equals("EURO"))
                    T2.setText(String.valueOf(rs*11/1000));
                else if(str.equals("YEN"))
                    T2.setText(String.valueOf(rs*148/100));
                else
                    T2.setText("");
            }
        });
    }
}
```

### XML CODE:

```
<?xml version="1.0" encoding="utf-8"?>

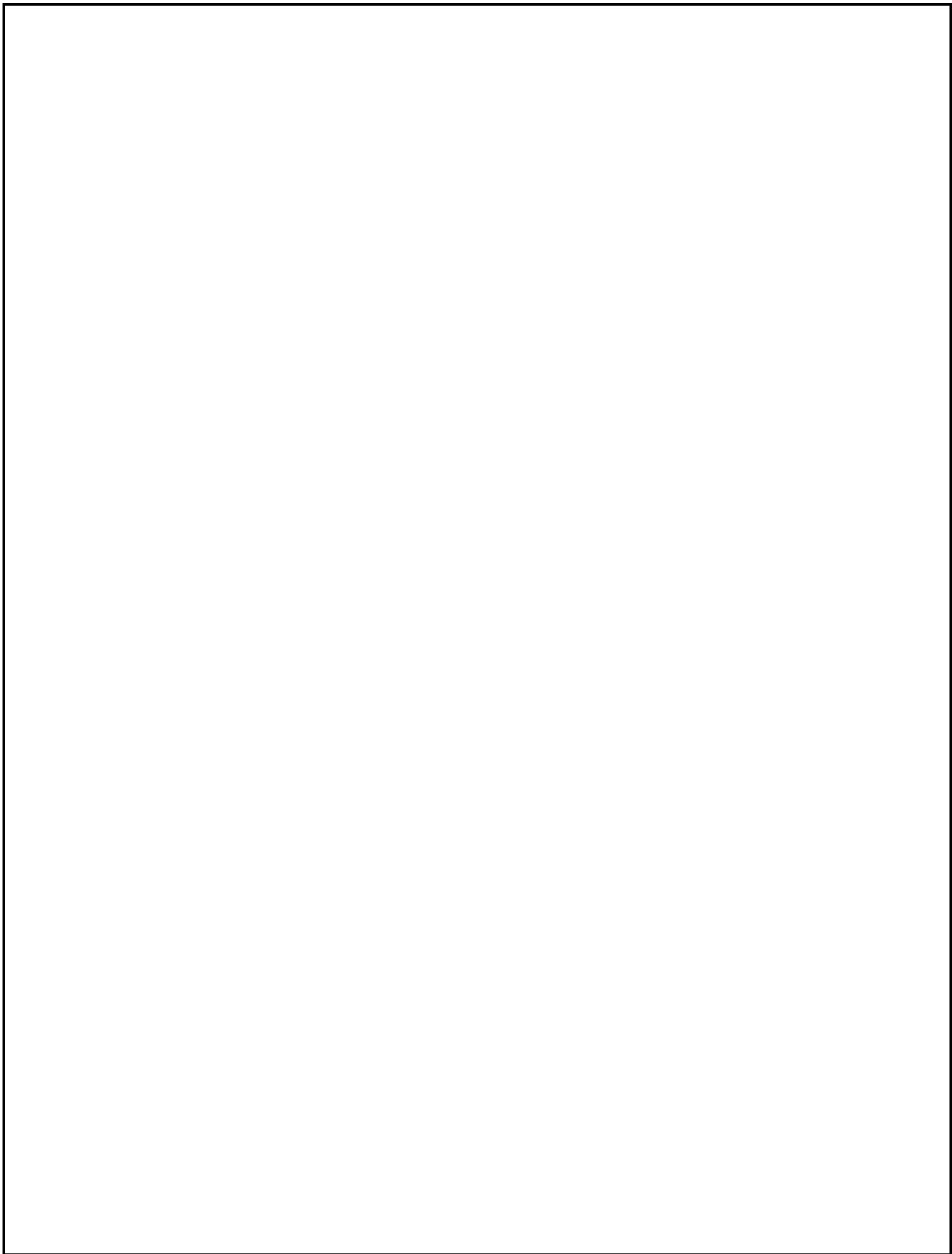
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
```

```
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="48dp"
    android:text=" CURRENCY \n CONVERTER"
    android:textAllCaps="false"
    android:textSize="36sp"
    android:textStyle="bold|italic"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
<EditText
    android:id="@+id/input"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="32dp"
    android:ems="10"
    android:hint="in rs"
    android:inputType="number|textPersonName"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />
<RadioGroup
    android:id="@+id/radioGroup"
    android:layout_width="128dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="16dp"
    android:checkedButton="@+id/usdButton"
    app:layout_constraintStart_toStartOf="@+id/input"
    app:layout_constraintTop_toBottomOf="@+id/input">
    <RadioButton
        android:id="@+id/usdButton"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="USD" />
    <RadioButton
        android:id="@+id/euroButton"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="EURO" />
    <RadioButton
        android:id="@+id/yenButton"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="YEN" />
</RadioGroup>
<Button
    android:id="@+id/convertButton"
    android:layout_width="200dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="16dp"
```

```
        android:text="CONVERT"
        app:layout_constraintStart_toStartOf="@+id/input"
        app:layout_constraintTop_toBottomOf="@+id/radioGroup" />

    <EditText
        android:id="@+id/result"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:ems="10"
        android:inputType="number|textPersonName"
        app:layout_constraintStart_toStartOf="@+id/convertButton"
        app:layout_constraintTop_toBottomOf="@+id/convertButton" />

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



3:31

4G 100%

lab2.1

# CURRENCY CONVERTER

50

USD

EURO

YEN

CONVERT

74.0



# Mobile Application Development LAB

---

**NAME:** DARSI S S V GOPI KRISHNA

**REGNO:**19BCE7360

Design an COVIDAPP to get the symptoms and analyse it to print the diagnostic result. Assume your condition for covid, cough and fever and display the result in mainActivity2

xml1:

```
<?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/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Enter Name"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.198"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.105" />
    <EditText
        android:id="@+id/e1"
        android:layout_width="157dp"
        android:layout_height="46dp"
        android:ems="10"
        android:inputType="textPersonName"
        android:hint="Name"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.883"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.087" />
    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
        android:text="Place"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.212"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.195" />
    <EditText
        android:id="@+id/e2"
        android:layout_width="159dp"
        android:layout_height="41dp"
        android:ems="10"
        android:hint="place"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.884"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.169" />
    <TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Aadhaar number"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.218"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.265" />
    <EditText
        android:id="@+id/e3"
        android:layout_width="159dp"
        android:layout_height="40dp"
        android:ems="10"
        android:hint="Aadhaar no"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.884"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.243" />
    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Symptoms"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.194"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.353" />
    <CheckBox
        android:id="@+id/c1"
        android:layout_width="130dp"
        android:layout_height="46dp"
        android:text="Cold Cough"
        app:layout_constraintBottom_toBottomOf="parent"
```

```
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.369"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.457" />
<CheckBox
    android:id="@+id/c2"
    android:layout_width="99dp"
    android:layout_height="47dp"
    android:text="Fever"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.859"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.457" />
<CheckBox
    android:id="@+id/c3"
    android:layout_width="140dp"
    android:layout_height="40dp"
    android:text="No smell"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.373"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.591" />
<CheckBox
    android:id="@+id/c4"
    android:layout_width="104dp"
    android:layout_height="36dp"
    android:text="Vomiting"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.857"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.596" />
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Submit"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.554"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.715" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

java1:

```
package com.example.covidapp;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.content.Intent;
```

```
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
EditText e1,e2,e3;
String ee1,ee2,ee3;
String cb1,cb2,cb3,cb4;
CheckBox c1,c2,c3,c4;
// String cb1="Cold Cough";
// String cb2="Cold Cough";
// String cb3="Cold Cough";
// String cb4="Cold Cough";
Button button;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
e1=findViewById(R.id.e1);
e2=findViewById(R.id.e2);
e3=findViewById(R.id.e3);
c1=(CheckBox)findViewById(R.id.c1);
c2=(CheckBox)findViewById(R.id.c2);
c3=(CheckBox)findViewById(R.id.c3);
c4=(CheckBox)findViewById(R.id.c4);
button=(Button)findViewById(R.id.button);
button.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View view) {
ee1=e1.getText().toString();
ee2=e2.getText().toString();
ee3=e3.getText().toString();
Intent intent=new
Intent(MainActivity.this,MainActivity2.class);
intent.putExtra("keyname",ee1);
intent.putExtra("keyplace",ee2);
intent.putExtra("keyaadhaar",ee3);
if(c1.isChecked() &&c2.isChecked() &&c3.isChecked() &&
c4.isChecked()){
// Toast.makeText(getApplicationContext(),"Covid
//positive",Toast.LENGTH_SHORT).show();
String res = "Covid Positive";
intent.putExtra("keyresult",res);
String cb1 = "Cold Cough";
String cb2 = "Fever";
String cb3 = "No smell";
String cb4 = "Vomiting";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(!c1.isChecked() &&c2.isChecked() &&c3.isChecked()
&&c4.isChecked()){
String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = " ";
String cb2 = "Fever";
String cb3 = "No smell";
String cb4 = "Vomiting";
}
```

```
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(c1.isChecked() && !c2.isChecked() &&c3.isChecked() &&
c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = "Cold Cough";
String cb2 = " ";
String cb3 = "No smell";
String cb4 = "Vomiting";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(c1.isChecked() &&c2.isChecked() && !c3.isChecked() &&
c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = "Cold Cough";
String cb2 = "Fever";
String cb3 = " ";
String cb4 = "Vomiting";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(c1.isChecked() &&c2.isChecked() &&c3.isChecked() &&
!c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = "Cold Cough";
String cb2 = "Fever";
String cb3 = "No smell";
String cb4 = " ";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(!c1.isChecked() && !c2.isChecked() &&c3.isChecked() &&
c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = " ";
String cb2 = " ";
String cb3 = "No smell";
String cb4 = "vomiting ";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(!c1.isChecked() &&c2.isChecked() && !c3.isChecked() &&
c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
```

```
String cb1 = " ";
String cb2 = "Fever ";
String cb3 = " ";
String cb4 = "vomiting ";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(!c1.isChecked() &&c2.isChecked() &&c3.isChecked() &&
!c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = " ";
String cb2 = "Fever ";
String cb3 = "No smell ";
String cb4 = " ";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(c1.isChecked() && !c2.isChecked() && !c3.isChecked() &&
c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = "Cold cough";
String cb2 = " ";
String cb3 = " ";
String cb4 = "Vomiting";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(c1.isChecked() && !c2.isChecked() &&c3.isChecked() &&
!c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = "Cold cough";
String cb2 = " ";
String cb3 = " No smell";
String cb4 = "";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(c1.isChecked() &&c2.isChecked() && !c3.isChecked() &&
!c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = "Cold cough";
String cb2 = "Fever";
String cb3 = " ";
String cb4 = "";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
```

```
else if(c1.isChecked() && !c2.isChecked() && !c3.isChecked() &&
       !c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = "Cold cough";
String cb2 = " ";
String cb3 = " ";
String cb4 = " ";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(!c1.isChecked() &&c2.isChecked() && !c3.isChecked() &&
       !c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = " ";
String cb2 = "Fever ";
String cb3 = " ";
String cb4 = " ";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(!c1.isChecked() && !c2.isChecked() &&c3.isChecked() &&
       !c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = " ";
String cb2 = " ";
String cb3 = "No smell ";
String cb4 = " ";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else if(!c1.isChecked() && !c2.isChecked() && !c3.isChecked()
&&c4.isChecked()){
    String res = "Covid Negative";
intent.putExtra("keyresult",res);
String cb1 = " ";
String cb2 = " ";
String cb3 = " ";
String cb4 = "Vomiting ";
intent.putExtra("keycb1",cb1);
intent.putExtra("keycb2",cb2);
intent.putExtra("keycb3",cb3);
intent.putExtra("keycb4",cb4);
}
else{
// Toast.makeText(getApplicationContext(),"Covid
// Negative",Toast.LENGTH_SHORT).show();
String res = "Covid Negative";
intent.putExtra("keyresult",res);
if(c1.isChecked()) {
    String cb1 = "Cold Cough";
}
else{
```

```

        String cb1 = " ";
    }
    if(c2.isChecked()) {
        String cb2 = "Fever";
    }
    else{
        String cb2 = " ";
    }
    if(c3.isChecked()) {
        String cb3 = "No smell";
    }
    else{
        String cb3 = " ";
    }
    if(c4.isChecked()) {
        String cb4 = "Vomiting";
    }
    else{
        String cb4 = " ";
    }
}
startActivity(intent);
})
));
}
}

```

### xml2:

```

<?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">
    <TextView
        android:id="@+id/e11"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginTop="42dp"
        android:layout_marginBottom="18dp"
        app:autoSizeMaxTextSize="45dp"
        app:layout_constraintBottom_toTopOf="@+id/e12"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="@+id/e12"
        app:layout_constraintTop_toTopOf="parent" />
    <TextView
        android:id="@+id/e12"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginBottom="10dp"
        app:layout_constraintBottom_toTopOf="@+id/e13"
        app:layout_constraintEnd_toEndOf="@+id/e13"
        app:layout_constraintHorizontal_bias="1.0"
        app:layout_constraintStart_toStartOf="@+id/e13"
        app:layout_constraintTop_toBottomOf="@+id/e11" />
    <TextView
        android:id="@+id/e13"

```

```
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginStart="102dp"
        android:layout_marginBottom="22dp"
        app:layout_constraintBottom_toTopOf="@+id/textView18"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/e12" />
    <TextView
        android:id="@+id/c13"
        android:layout_width="0dp"
        android:layout_height="43dp"
        android:layout_marginStart="91dp"
        android:layout_marginEnd="30dp"
        app:layout_constraintBaseline_toBaselineOf="@+id/c14"
        app:layout_constraintEnd_toStartOf="@+id/c14"
        app:layout_constraintStart_toStartOf="parent" />
    <TextView
        android:id="@+id/c14"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginEnd="110dp"
        android:layout_marginBottom="105dp"
        app:layout_constraintBottom_toTopOf="@+id/result"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/c13"
        app:layout_constraintTop_toBottomOf="@+id/c12" />
    <TextView
        android:id="@+id/textView18"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginBottom="70dp"
        android:text="Symptoms"
        app:layout_constraintBottom_toTopOf="@+id/c12"
        app:layout_constraintEnd_toEndOf="@+id/textView19"
        app:layout_constraintStart_toStartOf="@+id/textView19"
        app:layout_constraintTop_toBottomOf="@+id/e13" />
    <TextView
        android:id="@+id/textView19"
        android:layout_width="155dp"
        android:layout_height="42dp"
        android:layout_marginStart="43dp"
        android:layout_marginEnd="44dp"
        android:text="Diagnosis result"
        app:layout_constraintBaseline_toBaselineOf="@+id/result"
        app:layout_constraintEnd_toStartOf="@+id/result"
        app:layout_constraintStart_toStartOf="parent" />
    <TextView
        android:id="@+id/result"
        android:layout_width="115dp"
        android:layout_height="28dp"
        android:layout_marginEnd="110dp"
        android:layout_marginBottom="245dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/textView19"
        app:layout_constraintTop_toBottomOf="@+id/c14" />
    <TextView
        android:id="@+id/c11"
        android:layout_width="0dp"
        android:layout_height="43dp"
```

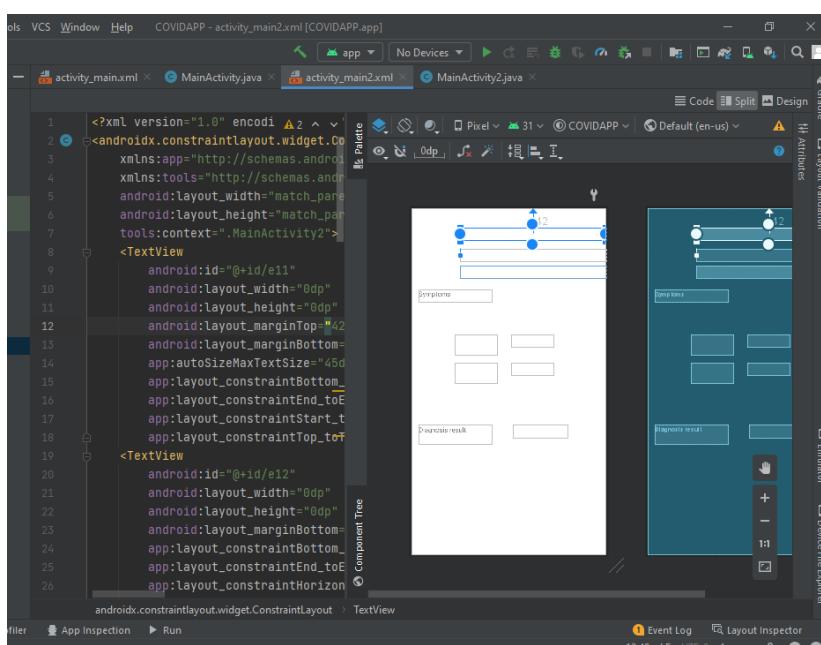
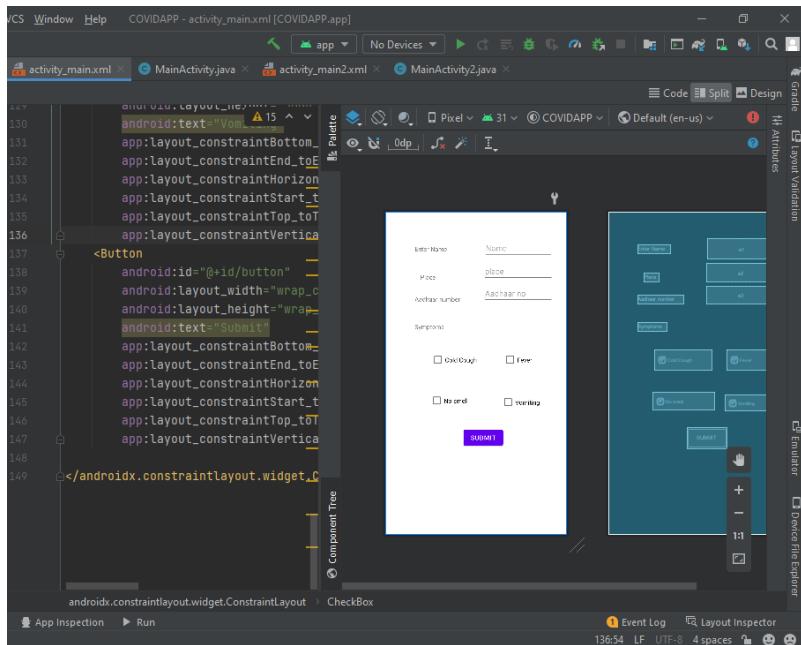
```
        android:layout_marginStart="91dp"
        android:layout_marginEnd="30dp"
        app:layout_constraintBaseline_toBaselineOf="@+id/c12"
        app:layout_constraintEnd_toStartOf="@+id/c12"
        app:layout_constraintStart_toStartOf="parent" />
    <TextView
        android:id="@+id/c12"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginEnd="110dp"
        android:layout_marginBottom="33dp"
        app:layout_constraintBottom_toTopOf="@+id/c14"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/c11"
        app:layout_constraintTop_toBottomOf="@+id/textView18"/>
</androidx.constraintlayout.widget.ConstraintLayout>
```

## Java2:

```
package com.example.covidapp;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.TextView;
public class MainActivity2 extends AppCompatActivity {
private TextView e11,e12,e13, c11,c12,c13,c14,result;
// TextView c11,c12,c13,c14;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main2);
e11=findViewById(R.id.e11);
e12=findViewById(R.id.e12);
e13=findViewById(R.id.e13);
result=findViewById(R.id.result);
c11=findViewById(R.id.c11);
c12=findViewById(R.id.c12);
c13=findViewById(R.id.c13);
c14=findViewById(R.id.c14);
String ee1=getIntent().getStringExtra("keyname");
e11.setText(ee1);
String ee2=getIntent().getStringExtra("keyplace");
e12.setText(ee2);
String ee3=getIntent().getStringExtra("keyaadhaar");
e13.setText(ee3);
String cb1=getIntent().getStringExtra("keycb1");
c11.setText(cb1);
String cb2=getIntent().getStringExtra("keycb2");
c12.setText(cb2);
String cb3=getIntent().getStringExtra("keycb3");
c13.setText(cb3);
String cb4=getIntent().getStringExtra("keycb4");
c14.setText(cb4);
String res=getIntent().getStringExtra("keyresult");
result.setText(res);
}
}
```



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VoIP 4G LTE1

# COVIDAPP

Enter Name

Name \_\_\_\_\_

Place

place \_\_\_\_\_

Aadhaar number

Aadhaar no \_\_\_\_\_

Symptoms

Cold Cough

Fever

No smell

Vomiting

**SUBMIT**

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4G LTE1 4G

# COVIDAPP

Gopi

Guntur

689254664532

## Symptoms

Cold Cough

Fever

No smell

Vomiting

## Diagnosis result

Covid Positive

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VoIP 4G LTE1

## COVIDAPP

Enter Name

Gopi

Place

Guntur

Aadhaar number

689254664532

Symptoms

Cold Cough

Fever

No smell

Vomiting

**SUBMIT**

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VoIP 4G LTE1

## COVIDAPP

Gopi

Guntur

689254664532

Symptoms

Cold cough

Vomiting

Diagnosis result

Covid Negative

MOBILE APPLICATION DEVELOPMENT:

NAME: DARSI S S V GOPI KRISHNA

REGNO: 19BCE7360

**Question:**

Design a calculator to perform addition, subtraction, multiplication and division. Also a 'C' button to clear the Value in the Textbox and '=' button to display the result.

**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:visibility="visible"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/T1"
        android:layout_width="347dp"
        android:layout_height="0dp"
        android:layout_marginTop="93dp"
        android:layout_marginBottom="51dp"
        android:textAlignment="viewEnd"
        android:textSize="30sp"
        android:visibility="visible"
        app:layout_constraintBottom_toTopOf="@+id/BA"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.421"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        tools:visibility="visible" />

    <Button
        android:id="@+id/B1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="1dp"
        android:layout_marginEnd="2dp"
        android:text="1"
        app:layout_constraintBaseline_toBaselineOf="@+id/B2"
        app:layout_constraintEnd_toStartOf="@+id/B2"
        app:layout_constraintStart_toStartOf="parent" />

    <Button
        android:id="@+id/B2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="3dp"
```

```
        android:text="2"
        app:layout_constraintEnd_toStartOf="@+id/B3"
        app:layout_constraintStart_toEndOf="@+id/B1"
        app:layout_constraintTop_toTopOf="@+id/B3" />

    <Button
        android:id="@+id/B3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="3dp"
        android:text="3"
        app:layout_constraintBaseline_toBaselineOf="@+id/BA"
        app:layout_constraintEnd_toStartOf="@+id/BA"
        app:layout_constraintStart_toEndOf="@+id/B2" />

    <Button
        android:id="@+id/BA"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="15dp"
        android:text="+"
        app:layout_constraintBottom_toTopOf="@+id/BS"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/B3"
        app:layout_constraintTop_toBottomOf="@+id/T1" />

    <Button
        android:id="@+id/B4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="3dp"
        android:text="4"
        app:layout_constraintBaseline_toBaselineOf="@+id/B5"
        app:layout_constraintEnd_toStartOf="@+id/B5"
        app:layout_constraintStart_toStartOf="parent" />

    <Button
        android:id="@+id/B5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="3dp"
        android:layout_marginBottom="2dp"
        android:text="5"
        app:layout_constraintBottom_toBottomOf="@+id/B6"
        app:layout_constraintEnd_toStartOf="@+id/B6"
        app:layout_constraintStart_toEndOf="@+id/B4" />

    <Button
        android:id="@+id/B6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="3dp"
        android:text="6"
        app:layout_constraintBaseline_toBaselineOf="@+id/BS"
        app:layout_constraintEnd_toStartOf="@+id/BS"
        app:layout_constraintStart_toEndOf="@+id/B5" />
```

```
<Button
    android:id="@+id/BS"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="12dp"
    android:text="-"
    app:layout_constraintBottom_toTopOf="@+id/BD"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/B6"
    app:layout_constraintTop_toBottomOf="@+id/BA" />

<Button
    android:id="@+id/B7"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="3dp"
    android:text="7"
    app:layout_constraintBaseline_toBaselineOf="@+id/B8"
    app:layout_constraintEnd_toStartOf="@+id/B8"
    app:layout_constraintStart_toStartOf="parent" />

<Button
    android:id="@+id/B8"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="3dp"
    android:text="8"
    app:layout_constraintEnd_toStartOf="@+id/B9"
    app:layout_constraintStart_toEndOf="@+id/B7"
    app:layout_constraintTop_toTopOf="@+id/B9" />

<Button
    android:id="@+id/B9"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="3dp"
    android:text="9"
    app:layout_constraintBaseline_toBaselineOf="@+id/BD"
    app:layout_constraintEnd_toStartOf="@+id/BD"
    app:layout_constraintStart_toEndOf="@+id/B8" />

<Button
    android:id="@+id/BD"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="11dp"
    android:text="/"
    app:layout_constraintBottom_toTopOf="@+id/BM"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/B9"
    app:layout_constraintTop_toBottomOf="@+id/BS" />

<Button
    android:id="@+id/B0"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="1dp"
```

```

        android:layout_marginTop="12dp"
        android:layout_marginEnd="4dp"
        android:text="0"
        app:layout_constraintEnd_toStartOf="@+id/BC"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/B7" />

    <Button
        android:id="@+id/BC"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="5dp"
        android:text="C"
        app:layout_constraintBaseline_toBaselineOf="@+id/B0"
        app:layout_constraintEnd_toStartOf="@+id/BE"
        app:layout_constraintStart_toEndOf="@+id/B0" />

    <Button
        android:id="@+id/BE"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="1dp"
        android:layout_marginEnd="4dp"
        android:text ="="
        app:layout_constraintEnd_toStartOf="@+id/BM"
        app:layout_constraintStart_toEndOf="@+id/BC"
        app:layout_constraintTop_toTopOf="@+id/BM" />

    <Button
        android:id="@+id/BM"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="273dp"
        android:text ="*"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/BE"
        app:layout_constraintTop_toBottomOf="@+id/BD" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Java:

```

package com.example.lab21;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity { TextView t1;
    Button b0,b1,b2,b3,b4,b5,b6,b7,b8,b9,ba,bs,bd,bm,bc,be;
    int res = 0, temp = 0;
    String t,r,op;
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState); setContentView(R.layout.activity_main);
    t1 = findViewById(R.id.T1);
    b0 = findViewById(R.id.B0);
    b1 = findViewById(R.id.B1);
    b2 = findViewById(R.id.B2);
    b3 = findViewById(R.id.B3);
    b4 = findViewById(R.id.B4);
    b5 = findViewById(R.id.B5);
    b6 = findViewById(R.id.B6);
    b7 = findViewById(R.id.B7);
    b8 = findViewById(R.id.B8);
    b9 = findViewById(R.id.B9);
    ba = findViewById(R.id.BA);
    bs = findViewById(R.id.BS);
    bd = findViewById(R.id.BD);
    bm = findViewById(R.id.BM);
    bc = findViewById(R.id.BC);
    be = findViewById(R.id.BE);
    b0.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "0";
    t1.setText(r);
}
});
    b1.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "1";
    t1.setText(r);
}
});
    b2.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "2";
    t1.setText(r);
}
});
    b3.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "3";
    t1.setText(r);
}
});
    b4.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "4";
    t1.setText(r);
}
});
    b5.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
```

```
        t = t1.getText().toString();
        r = t + "5";
        t1.setText(r);
    }
});
b6.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "6";
    t1.setText(r);
}
});
b7.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "7";
    t1.setText(r);
}
});
b8.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "8";
    t1.setText(r);
}
});
b9.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    t = t1.getText().toString();
    r = t + "9";
    t1.setText(r);
}
});
ba.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    op = "+";
    temp = Integer.parseInt(t1.getText().toString()); t1.setText("");
}
});
bs.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    op = "-";
    temp = Integer.parseInt(t1.getText().toString()); t1.setText("");
}
});
bd.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) { op = "/";
    temp = Integer.parseInt(t1.getText().toString()); t1.setText("");
}
});
bm.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    op = "*";
    temp = Integer.parseInt(t1.getText().toString()); t1.setText("");
}
});
bc.setOnClickListener(new View.OnClickListener() { @Override
```

```
public void onClick(View v) {
    temp = 0; t1.setText("");
}
});
be.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View v) {
    if (op.equals("+")) {
        res = temp + Integer.parseInt(t1.getText().toString());
t1.setText(String.valueOf(res));
    }
    else if (op.equals("-")) {
        res = temp - Integer.parseInt(t1.getText().toString());
        t1.setText(String.valueOf(res));
    }
    else if (op.equals("/")) {
        res = temp / Integer.parseInt(t1.getText().toString());
t1.setText(String.valueOf(res));
    }
    else if (op.equals("*")) {
        res = temp * Integer.parseInt(t1.getText().toString());
t1.setText(String.valueOf(res));
    }
}
});
}
});
```

**output:**

calculator

4



9:41



## lab2.1

1

2

3

+

4

5

6

-

7

8

9

/

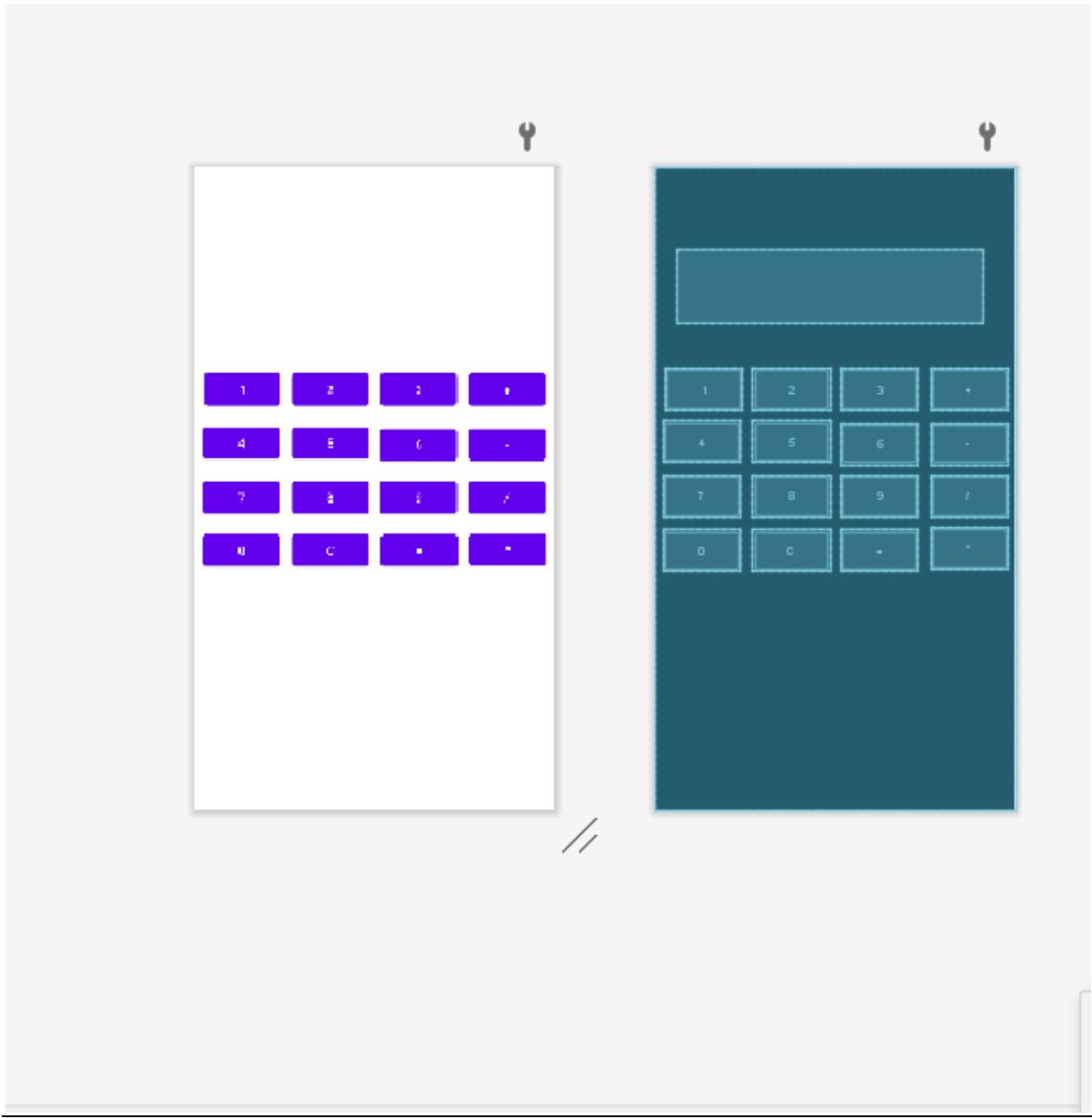
0

C

=

\*



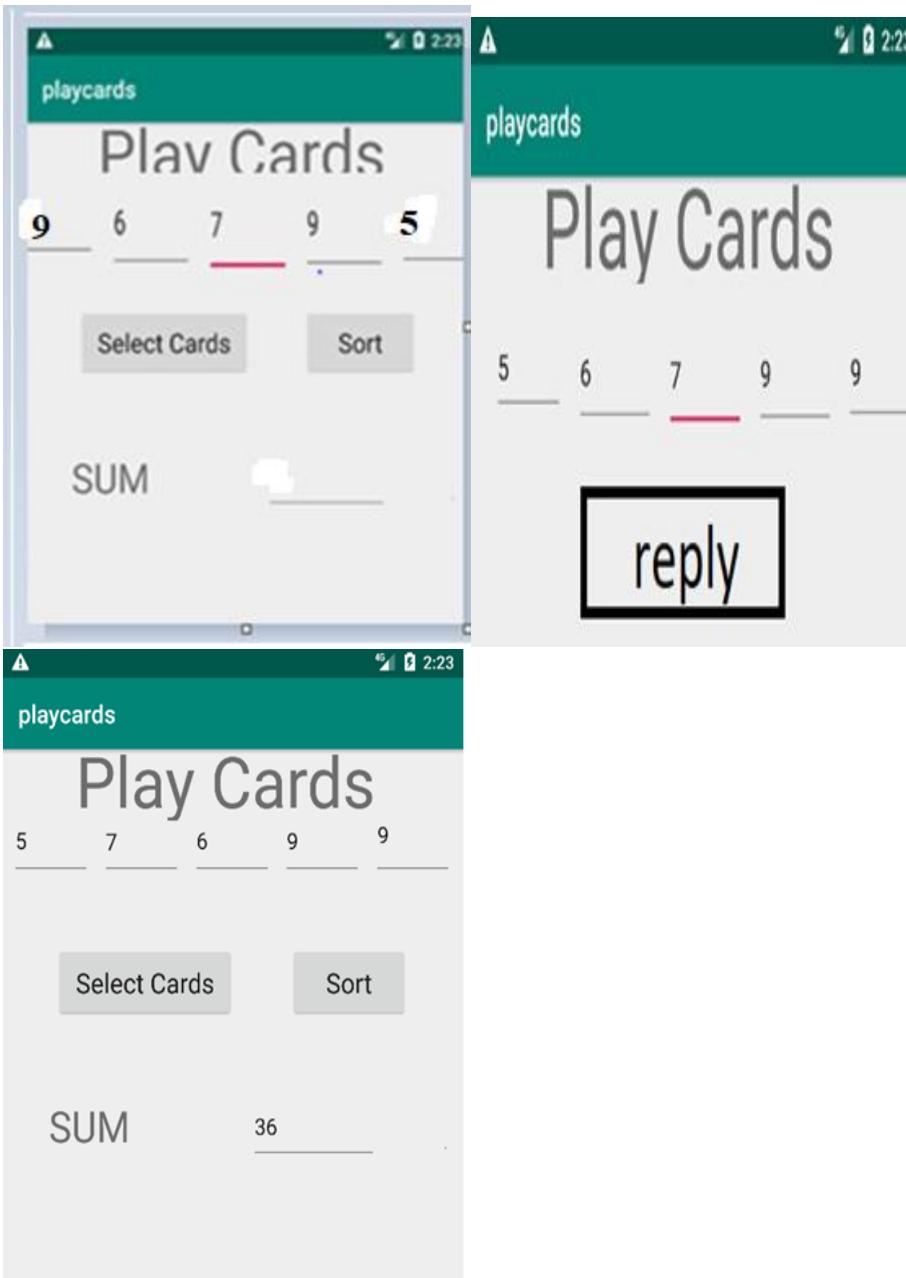


**NAME: Darsi S S V GoPi KRISHNA**

**REGNO: 19BCE7360**

**LAB: CSE4002Mobile Application Development LAB**

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



**CODE:**

**XML 1:**

```
<?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">

    <EditText
```

```
        android:id="@+id/T1"
        android:layout_width="0dp"
        android:layout_height="47dp"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="7dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintBaseline_toBaselineOf="@+id/T2"
        app:layout_constraintEnd_toStartOf="@+id/T2"
        app:layout_constraintStart_toStartOf="parent" />

<EditText
    android:id="@+id/T2"
    android:layout_width="0dp"
    android:layout_height="47dp"
    android:layout_marginTop="113dp"
    android:layout_marginEnd="8dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintEnd_toStartOf="@+id/T3"
    app:layout_constraintStart_toEndOf="@+id/T1"
    app:layout_constraintTop_toTopOf="parent" />

<EditText
    android:id="@+id/T3"
    android:layout_width="69dp"
    android:layout_height="48dp"
    android:layout_marginEnd="10dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBaseline_toBaselineOf="@+id/T2"
    app:layout_constraintEnd_toStartOf="@+id/T4"
    app:layout_constraintStart_toEndOf="@+id/T2" />

<EditText
    android:id="@+id/T4"
    android:layout_width="0dp"
    android:layout_height="0dp"
    android:layout_marginEnd="9dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="@+id/T1"
    app:layout_constraintEnd_toStartOf="@+id/T5"
    app:layout_constraintStart_toEndOf="@+id/T3"
    app:layout_constraintTop_toTopOf="@+id/T1" />

<EditText
    android:id="@+id/T5"
    android:layout_width="0dp"
    android:layout_height="47dp"
    android:layout_marginEnd="16dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBaseline_toBaselineOf="@+id/T4"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/T4" />
```

```
<Button
    android:id="@+id/B1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="45dp"
    android:layout_marginEnd="44dp"
    android:text="SELECT CARDS"
    app:layout_constraintBaseline_toBaselineOf="@+id/B2"
    app:layout_constraintEnd_toStartOf="@+id/T4"
    app:layout_constraintStart_toStartOf="@+id/T1" />

<Button
    android:id="@+id/B2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="26dp"
    android:layout_marginTop="101dp"
    android:layout_marginBottom="101dp"
    android:text="SORT"
    app:layout_constraintBottom_toTopOf="@+id/T6"
    app:layout_constraintStart_toEndOf="@+id/B1"
    app:layout_constraintTop_toBottomOf="@+id/T3" />

<TextView
    android:id="@+id/T6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="33dp"
    android:text=" SUM "
    android:textColor="@color/black"
    android:textSize="24sp"
    app:layout_constraintBottom_toBottomOf="@+id/T7"
    app:layout_constraintEnd_toStartOf="@+id/T7" />

<EditText
    android:id="@+id/T7"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="40dp"
    android:layout_marginBottom="291dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />

<TextView
    android:id="@+id/textView"
    android:layout_width="118dp"
    android:layout_height="0dp"
    android:layout_marginTop="30dp"
    android:layout_marginBottom="325dp"
    android:text="PlayCards"
    android:textAppearance="@style/TextAppearance.AppCompat.Body2"
    app:layout_constraintBottom_toTopOf="@+id/T7"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
```

```
        app:layout_constraintTop_toTopOf="parent" />  
</androidx.constraintlayout.widget.ConstraintLayout>
```

**XML 2:**

```
<?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"  
        app:layout_constraintVertical_bias="0.0" />  
  
    <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"
        app:layout_constraintVertical_bias="0.0" />

<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"
    app:layout_constraintVertical_bias="0.0" />

<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>
```

#### JAVA 1:

```

package com.example.lab21;
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;
import java.util.Random;
public class MainActivity extends AppCompatActivity {
    EditText t1,t2,t3,t4,t5,t7;
    Button b1,b2;
    int[] cards = new int[5];
    Random rand = new Random();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        t1 = findViewById(R.id.T1);
        t2 = findViewById(R.id.T2);
        t3 = findViewById(R.id.T3);
        t4 = findViewById(R.id.T4);
        t5 = findViewById(R.id.T5);
        t7 = findViewById(R.id.T7);
        b1 = findViewById(R.id.B1);
        b2 = findViewById(R.id.B2);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                for (int k = 0; k < 5; k++) {
                    cards[k] = 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"));
        t7.setText(data.getExtras().getString("sum"));
    }
}
}
```

## JAVA 2:

```
package com.example.lab21;
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:**

9:38



lab2.1

-----

SELECT CARDS

SORT

SUM

\_\_\_\_\_



9:38



## lab2.1

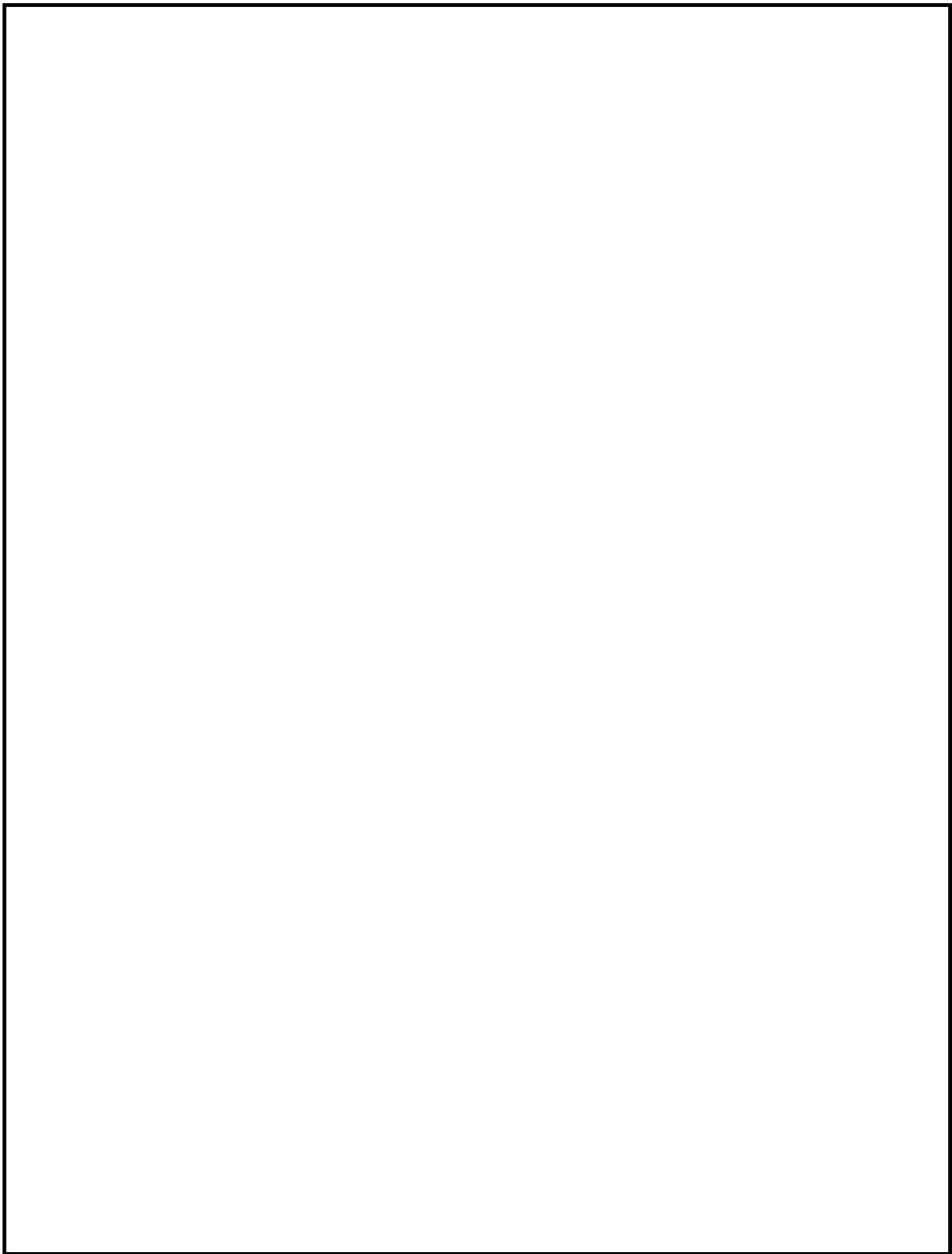
5 \_\_\_\_\_ 6 \_\_\_\_\_ 7 \_\_\_\_\_ 9 \_\_\_\_\_ 9 \_\_\_\_\_

SELECT CARDS

SORT

SUM 36 \_\_\_\_\_



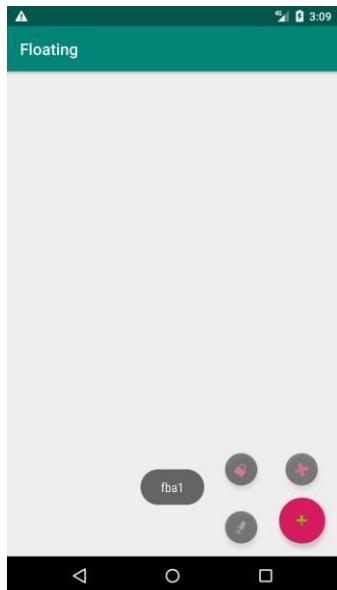


NAME: Darsi S S V GoPI KRISHNA

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LAB: CSE4002Mobile Application Development LAB

- Design a Floating action button demo. Initially only the pink button should display when 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.



### Activity\_main.xml:

```
package com.example.fab;
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 android.widget.Toast;

import
```

```
com.google.android.material.floatingactionbutton.FloatingActionButton;
public class MainActivity extends AppCompatActivity {
    Animation fab_open,fab_close,fab_clock,fab_anticlockwise;
    FloatingActionButton fab_plus,fab_audio,fab_camera,fab_cal;
    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.floatingActionButton1);
        fab_audio = (FloatingActionButton)
findViewById(R.id.floatingActionButton2);
        fab_audio.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Toast.makeText(getApplicationContext(), "audio",
Toast.LENGTH_LONG).show();
            }
        );
        fab_camera = (FloatingActionButton)
findViewById(R.id.floatingActionButton3);
        fab_camera.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Toast.makeText(getApplicationContext(), "camera",
Toast.LENGTH_LONG).show();
            }
        );
        fab_cal = (FloatingActionButton)
findViewById(R.id.floatingActionButton4);
        fab_cal.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Toast.makeText(getApplicationContext(), "cal",
Toast.LENGTH_LONG).show();
            }
        );
        fab_open = AnimationUtils.loadAnimation(getApplicationContext(),
R.anim.fab_open);
        fab_close =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.fab_close);
        fab_clock =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.fab_clock);
        fab_anticlockwise =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.fab_anticlock);
        fab_plus.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if (!isOpen)
                {
                    fab_audio.startAnimation(fab_open);
                    fab_camera.startAnimation(fab_open);
                    fab_cal.startAnimation(fab_open);
                    fab_plus.startAnimation(fab_clock);
                    fab_audio.setClickable(true);
                    fab_camera.setClickable(true);
                    fab_cal.setClickable(true);
                    isOpen = true;
                } else {

```

```
        fab_audio.startAnimation(fab_close);
        fab_camera.startAnimation(fab_close);
        fab_cal.startAnimation(fab_close);
        fab_plus.startAnimation(fab_anticlockwise);
        fab_audio.setClickable(false);
        fab_camera.setClickable(false);
        fab_cal.setClickable(false);
        isOpen = false;
    }
}
});
```

## fab\_open.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/textView"
        android:layout_width="253dp"
        android:layout_height="42dp"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="90dp"
        android:layout_marginTop="27dp"
        android:text="Floating Action Button"
        android:textColor="#9C27B0"
        android:textSize="24sp" />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/floatingActionButton1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="36dp"
        android:layout_marginBottom="29dp"
        android:clickable="true"
        app:srcCompat="@android:drawable/ic_input_add" />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/floatingActionButton2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="35dp"
        android:layout_marginBottom="121dp"
        android:clickable="true"
        app:srcCompat="@android:drawable/presence_audio_online" />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/floatingActionButton3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="132dp"
        android:layout_marginBottom="124dp"
        android:clickable="true"
        app:srcCompat="@android:drawable/ic_menu_camera" />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/floatingActionButton4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="133dp"
        android:layout_marginBottom="36dp"
        android:clickable="true"
        app:srcCompat="@android:drawable/ic_menu_my_calendar" />
</RelativeLayout>
```

### fab\_close.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/textView"
        android:layout_width="253dp"
        android:layout_height="42dp"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="90dp"
        android:layout_marginTop="27dp"
        android:text="Floating Action Button"
        android:textColor="#9C27B0"
        android:textSize="24sp" />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/floatingActionButton1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="36dp"
        android:layout_marginBottom="29dp"
        android:clickable="true"
        app:srcCompat="@android:drawable/ic_input_add" />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/floatingActionButton2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="35dp"
        android:layout_marginBottom="121dp"
        android:clickable="true"
        app:srcCompat="@android:drawable/presence_audio_online" />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/floatingActionButton3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="132dp"
        android:layout_marginBottom="124dp"
        android:clickable="true"
        app:srcCompat="@android:drawable/ic_menu_camera" />
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/floatingActionButton4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="133dp"
        android:layout_marginBottom="36dp"
        android:clickable="true"
        app:srcCompat="@android:drawable/ic_menu_my_calendar" />
</RelativeLayout>
```

### **fab\_clock.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\_anticlock.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>
```

### **MainActivity.java:**

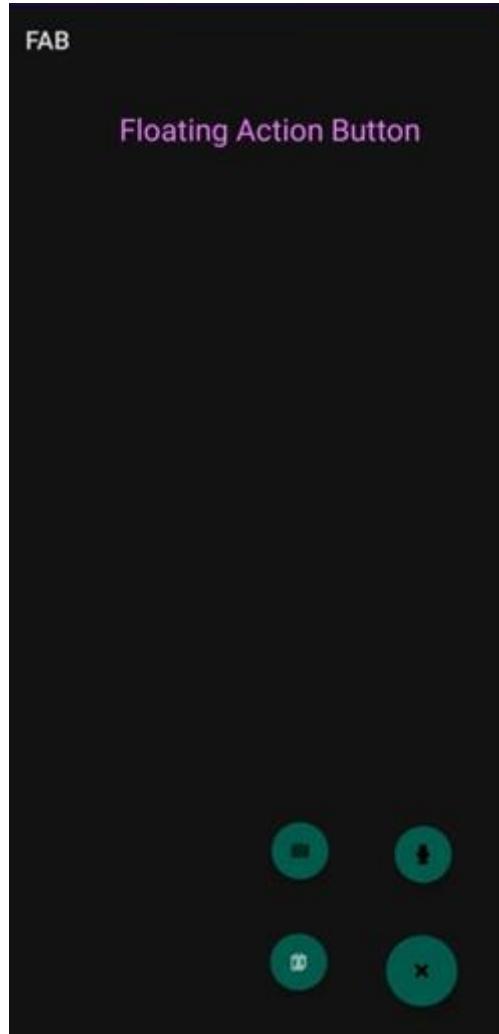
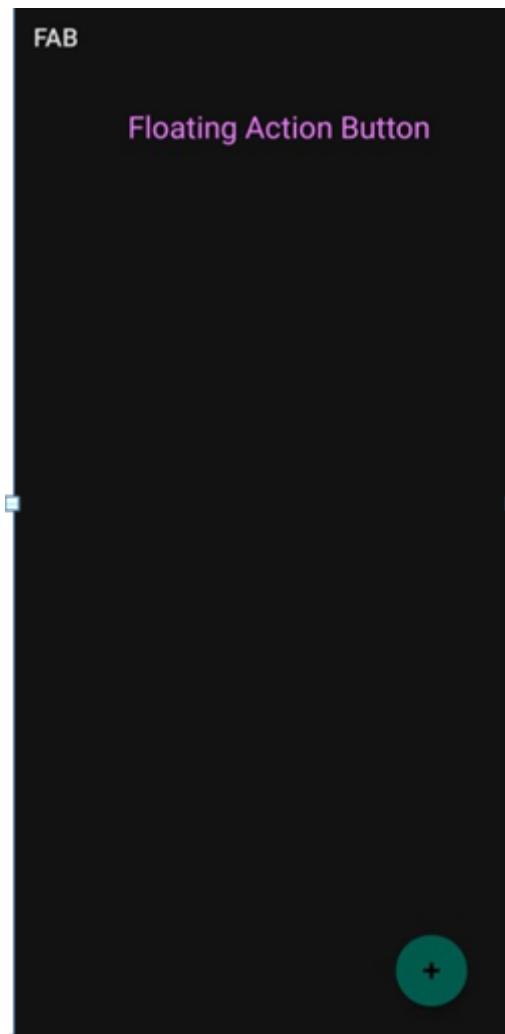
```
package com.example.fab;
import androidx.appcompat.app.AppCompatActivity;
import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.view.animation.Animation; import
android.view.animation.AnimationUtils; import android.widget.Toast;

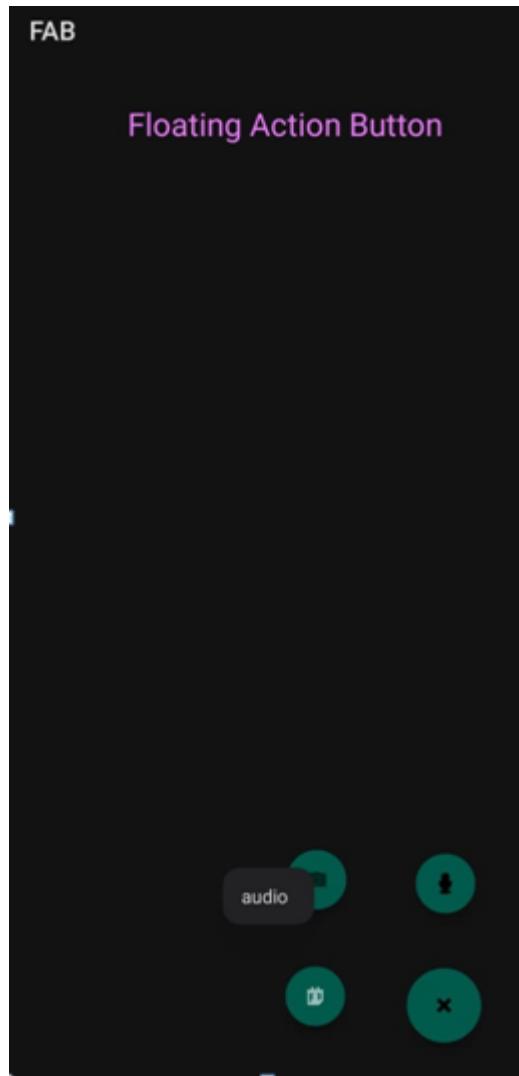
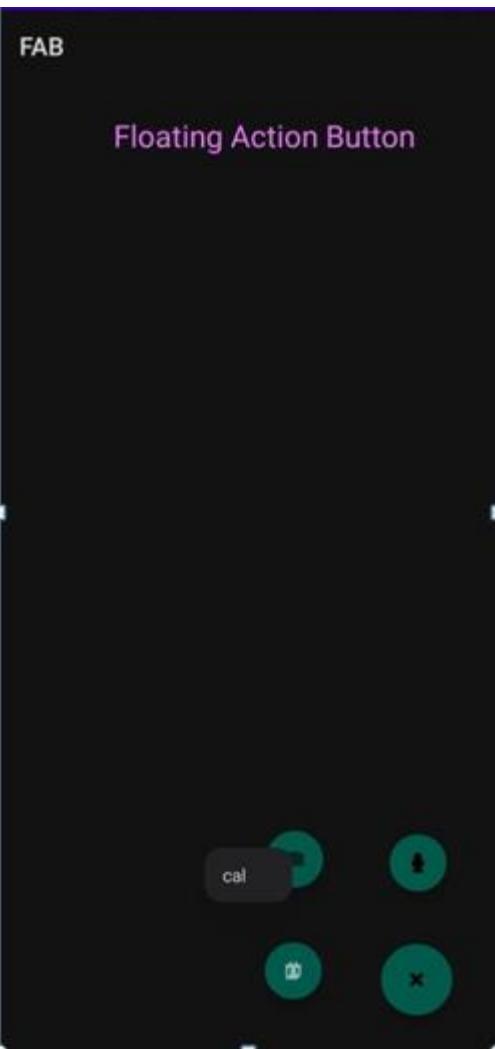
import
com.google.android.material.floatingactionbutton.FloatingActionButton;
public class MainActivity extends AppCompatActivity {
    Animation fab_open,fab_close,fab_clock,fab_anticlockwise;
    FloatingActionButton fab_plus,fab_audio,fab_camera,fab_cal; boolean isOpen,
isClose;
    @SuppressLint("ResourceType") @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState); setContentView(R.layout.activity_main);
fab_plus = (FloatingActionButton)
        findViewById(R.id.floatingActionButton1);
    fab_audio = (FloatingActionButton)
findViewById(R.id.floatingActionButton2);
    fab_audio.setOnClickListener(new View.OnClickListener() { @Override

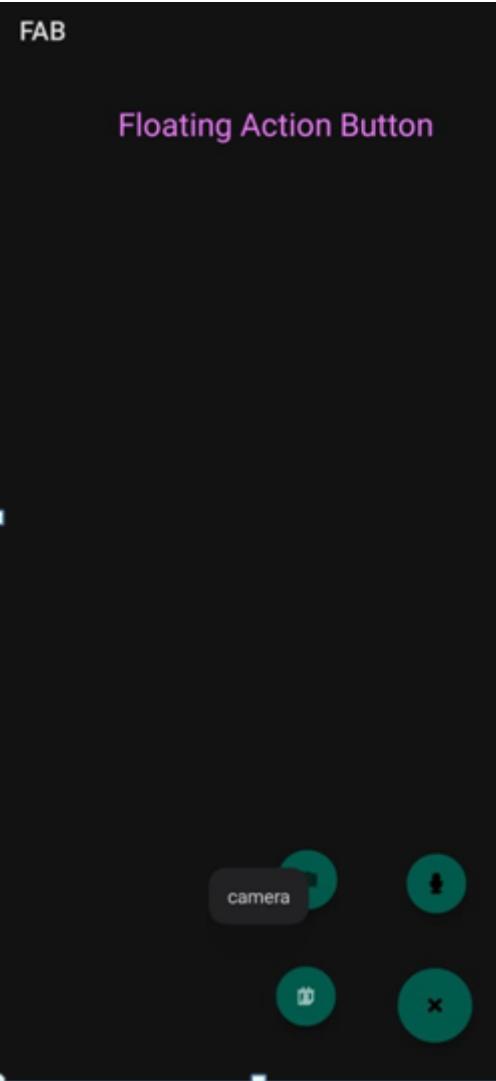
        public void onClick(View view) {
Toast.makeText(getApplicationContext(), "audio",
            Toast.LENGTH_LONG).show();
        }
    });
    fab_camera = (FloatingActionButton)
findViewById(R.id.floatingActionButton3);
    fab_camera.setOnClickListener(new View.OnClickListener() { @Override
        public void onClick(View view) {
Toast.makeText(getApplicationContext(), "camera",
            Toast.LENGTH_LONG).show();
        }
    });
    fab_cal = (FloatingActionButton)
```

```
findViewById(R.id.floatingActionButton4);
        fab_cal.setOnClickListener(new View.OnClickListener() { @Override
        public void onClick(View view) {
    Toast.makeText(getApplicationContext(), "cal",
                    Toast.LENGTH_LONG).show();
    }
    });
    fab_open = AnimationUtils.loadAnimation(getApplicationContext(),
R.anim.fab_open);
    fab_close =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.fab_close);
    fab_clock =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.fab_clock);
    fab_anticlockwise =
AnimationUtils.loadAnimation(getApplicationContext(),R.anim.fab_anticlock);
    fab_plus.setOnClickListener(new View.OnClickListener() { @Override
    public void onClick(View v) {
        if (!isOpen)
        {
            fab_audio.startAnimation(fab_open);
fab_camera.startAnimation(fab_open); fab_cal.startAnimation(fab_open);
fab_plus.startAnimation(fab_clock); fab_audio.setClickable(true);
fab_camera.setClickable(true); fab_cal.setClickable(true);
            isOpen = true;
        } else {
            fab_audio.startAnimation(fab_close);
fab_camera.startAnimation(fab_close); fab_cal.startAnimation(fab_close);
fab_plus.startAnimation(fab_anticlockwise); fab_audio.setClickable(false);
fab_camera.setClickable(false); fab_cal.setClickable(false);
            isOpen = false;
        }
    }
    });
}
}
```

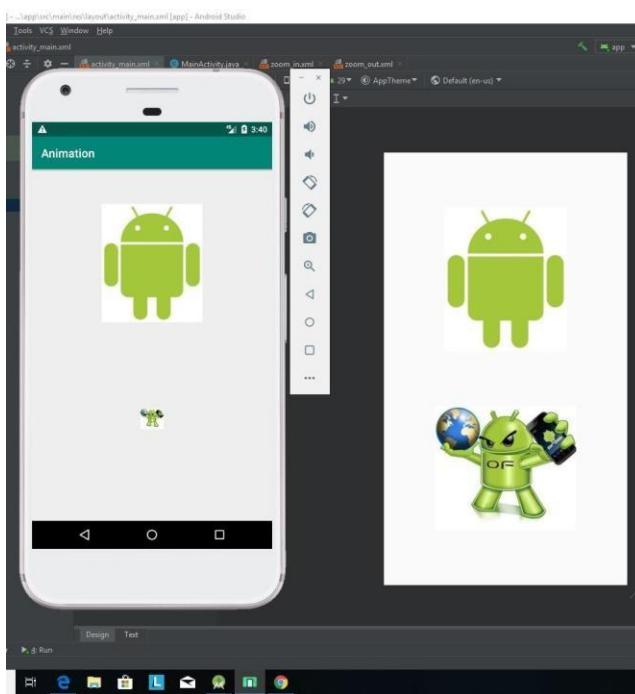
## **Output:**







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



### 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/imageView2" android:layout_width="0dp"
        android:layout_height="0dp" android:layout_marginTop="96dp"
        android:layout_marginBottom="91dp"
        app:layout_constraintBottom_toTopOf="@+id/imageView3"
        app:layout_constraintStart_toStartOf="@+id/imageView3"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@android:drawable/star_big_on" />

    <ImageView
        android:id="@+id/imageView3" android:layout_width="124dp"
        android:layout_height="0dp" android:layout_marginBottom="149dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView2"

        app:srcCompat="@android:drawable/star_big_off" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

### anime.xml :

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

    <scale android:fromXScale="50dp" android:fromYScale="50dp"
        android:pivotX="25%" android:pivotY="25%" android:toXScale="250dp"
        android:toYScale="250dp" android:duration="5000"/>
```

```
</set>
```

### anime1.xml :

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

    <scale android:fromXScale="250dp" android:fromYScale="250dp"
        android:pivotX="75%" android:pivotY="75%" android:toXScale="50dp"
        android:toYScale="50dp" android:duration="5000"/>
</set>
```

### anime2.xml :

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

    <scale android:fromXScale="250dp" android:fromYScale="250dp"
        android:pivotX="75%" android:pivotY="75%" android:toXScale="50dp"
        android:toYScale="50dp" android:duration="5000"/>
</set>
```

### anime3.xml :

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

    <scale android:fromXScale="50dp" android:fromYScale="50dp"
        android:pivotX="25%" android:pivotY="25%" android:toXScale="250dp"
        android:toYScale="250dp" android:duration="5000"/>
</set>
```

### Mainactivity.java :

```
package com.example.animation;

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.ImageView;

public class MainActivity extends AppCompatActivity { ImageView a1,a2;
    int flag=0; @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState); setContentView(R.layout.activity_main);
a1=findViewById(R.id.imageView2); a2=findViewById(R.id.imageView3);
    }

    public void res(View view)
    {
        if(flag==0) {
            Animation obj =
AnimationUtils.loadAnimation(getApplicationContext(), R.anim.anime);
            Animation obj1 =
AnimationUtils.loadAnimation(getApplicationContext(), R.anim.anime1);
            a1.startAnimation(obj); a2.startAnimation(obj1); flag=1;
        }
    }
}
```

```
    else
    {

        Animation obj =
AnimationUtils.loadAnimation(getApplicationContext(), R.anim.anime2);
        Animation obj1 =
AnimationUtils.loadAnimation(getApplicationContext(), R.anim.anime3);
        a1.startAnimation(obj); a2.startAnimation(obj1); flag=0;
    }
}
}
```

**output :**

Animation



Animation



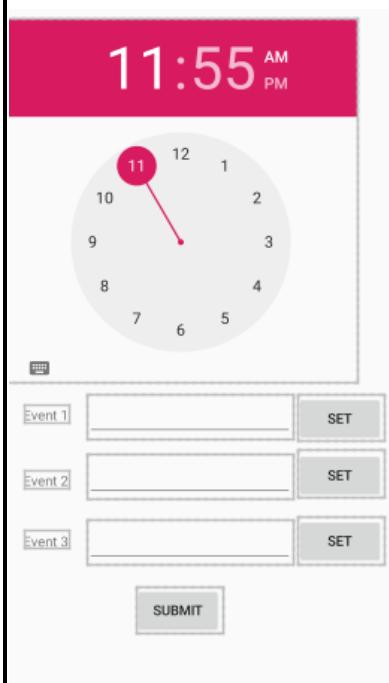
## LAB-7

NAME: Darsi S S V GoPI KRISHNA

REGNO: 19BCE7360

LAB: CSE4002 Mobile Application Development LAB

1. Design an app to schedule three events. Add time picker to the App, choose time and when SET button is clicked, set the time in the respective event Text.



### 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">

    <TimePicker
        android:id="@+id/TP"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/T1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="51dp"
        android:text="Event1"
        app:layout_constraintBaseline_toBaselineOf="@+id/E1"
        app:layout_constraintEnd_toStartOf="@+id/E1"
        app:layout_constraintStart_toStartOf="parent" />
```

```
<TextView
    android:id="@+id/T2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="16dp"
    android:layout_marginTop="41dp"
    android:layout_marginEnd="51dp"
    android:text="Event2"
    app:layout_constraintEnd_toStartOf="@+id/E2"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/T1" />

<TextView
    android:id="@+id/T3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="16dp"
    android:layout_marginTop="31dp"
    android:layout_marginEnd="51dp"
    android:text="Event3"
    app:layout_constraintEnd_toStartOf="@+id/E3"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/T2" />

<EditText
    android:id="@+id/E1"
    android:layout_width="0dp"
    android:layout_height="48dp"
    android:layout_marginTop="21dp"
    android:layout_marginEnd="32dp"
    android:layout_marginBottom="15dp"
    android:ems="10"
    android:inputType="time"
    app:layout_constraintBottom_toTopOf="@+id/E2"
    app:layout_constraintEnd_toStartOf="@+id/B1"
    app:layout_constraintStart_toEndOf="@+id/T1"
    app:layout_constraintTop_toBottomOf="@+id/TP"
    tools:ignore="SpeakableTextPresentCheck" />

<EditText
    android:id="@+id/E2"
    android:layout_width="0dp"
    android:layout_height="48dp"
    android:layout_marginTop="57dp"
    android:layout_marginEnd="32dp"
    android:layout_marginBottom="55dp"
    android:ems="10"
    android:inputType="time"
    app:layout_constraintBottom_toBottomOf="@+id/E3"
    app:layout_constraintEnd_toStartOf="@+id/B2"
    app:layout_constraintStart_toEndOf="@+id/T2"
    app:layout_constraintTop_toTopOf="@+id/B1"
    tools:ignore="SpeakableTextPresentCheck, SpeakableTextPresentCheck" />

<EditText
    android:id="@+id/E3"
    android:layout_width="0dp"
    android:layout_height="48dp"
    android:layout_marginTop="7dp"
    android:layout_marginEnd="32dp"
    android:layout_marginBottom="6dp"
    android:ems="10"
    android:inputType="time"
    app:layout_constraintBottom_toBottomOf="@+id/B3"
    app:layout_constraintEnd_toStartOf="@+id/B3"
    app:layout_constraintStart_toEndOf="@+id/T3"
    app:layout_constraintTop_toBottomOf="@+id/B2" />

<Button
    android:id="@+id/B1"
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="21dp"
        android:layout_marginEnd="22dp"
        android:text="Set"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/E1"
        app:layout_constraintTop_toBottomOf="@+id/TP" />

    <Button
        android:id="@+id/B2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="9dp"
        android:layout_marginEnd="22dp"
        android:text="SET"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/E2"
        app:layout_constraintTop_toBottomOf="@+id/B1" />

    <Button
        android:id="@+id/B3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="7dp"
        android:layout_marginEnd="22dp"
        android:text="SET"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/E3"
        app:layout_constraintTop_toBottomOf="@+id/B2" />

    <Button
        android:id="@+id/B4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="32dp"
        android:layout_marginBottom="54dp"
        android:text="SUBMIT"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="@+id/E3" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

## Java:

```

package com.example.lab21;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.TimePicker;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    TextView T1,T2,T3;
    TimePicker TP;
    EditText E1,E2,E3;
    Button B1,B2,B3,B4;
    int H,M;
    String S;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

```

```

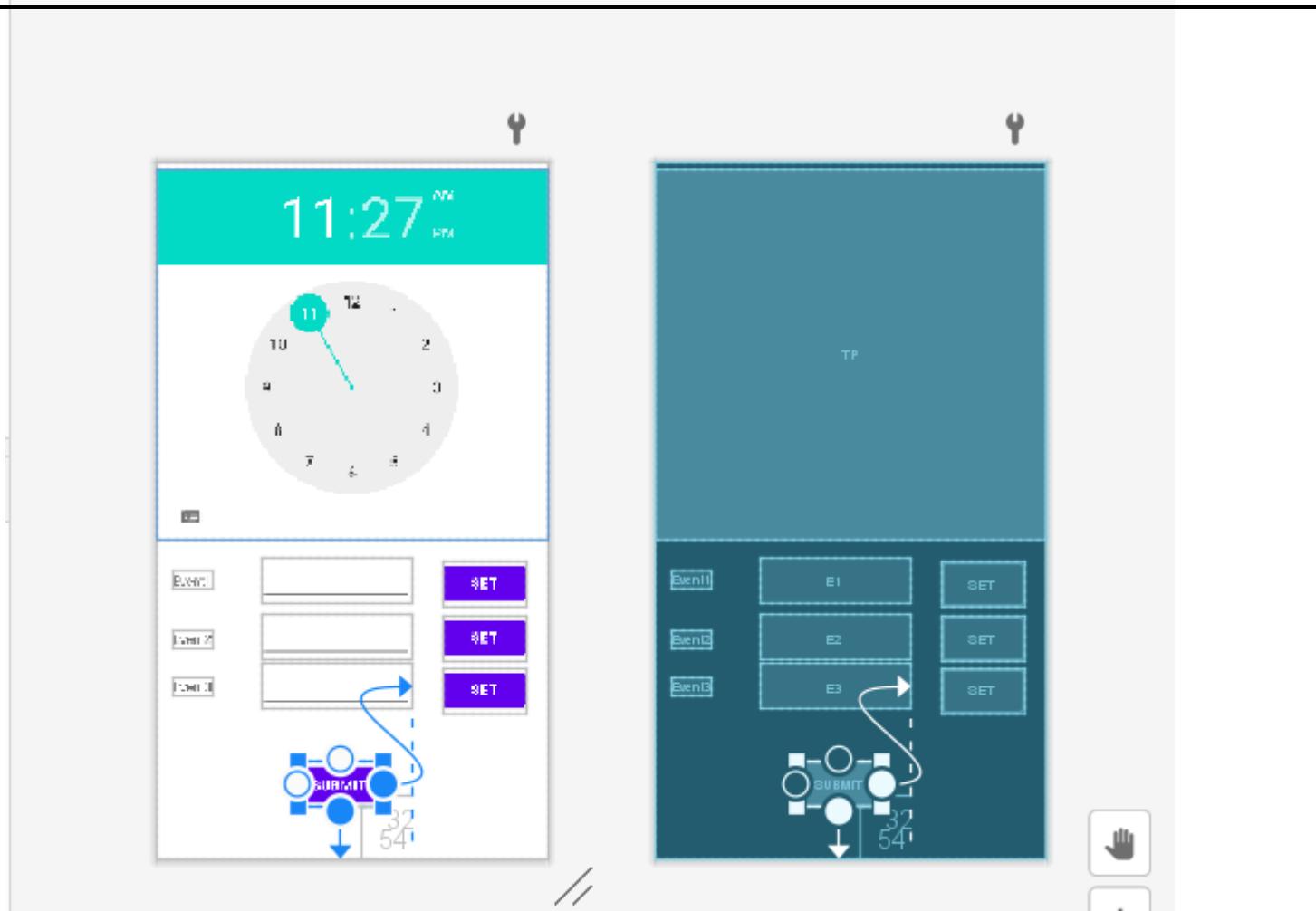
T1=findViewById(R.id.T1);
T2=findViewById(R.id.T2);
T3=findViewById(R.id.T3);
TP=findViewById(R.id.TP);
E1=findViewById(R.id.E1);
E2=findViewById(R.id.E2);
E3=findViewById(R.id.E3);
B1=findViewById(R.id.B1);
B2=findViewById(R.id.B2);
B3=findViewById(R.id.B3);
B4=findViewById(R.id.B4);

B1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        H=TP.getCurrentHour();
        M=TP.getCurrentMinute();
        S=String.valueOf(H)+":"+String.valueOf(M);
        E1.setText(S);
    }
});
B2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        H=TP.getCurrentHour();
        M=TP.getCurrentMinute();
        S=String.valueOf(H)+":"+String.valueOf(M);
        E2.setText(S);
    }
});
B3.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        H=TP.getCurrentHour();
        M=TP.getCurrentMinute();
        S=String.valueOf(H)+":"+String.valueOf(M);
        E3.setText(S);
    }
});
B4.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {

if(E1.getText().toString().equals("")||E2.getText().toString().equals("")||E3.getText().toString().equals(""))
{
    Toast.makeText(getApplicationContext(),"Please Set All events",Toast.LENGTH_LONG).show();
}
else
{
    Toast.makeText(getApplicationContext(),"All Events Was Set",Toast.LENGTH_LONG).show();
}
}
});
}
}

```

## Output:



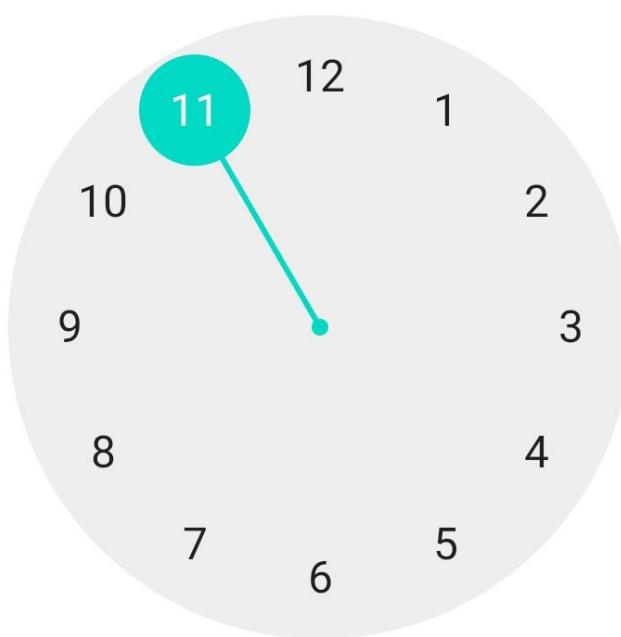
11:25

VoLTE 92%

## lab2.1

11:24 AM

PM



Event1

\_\_\_\_\_

SET

Event2

\_\_\_\_\_

SET

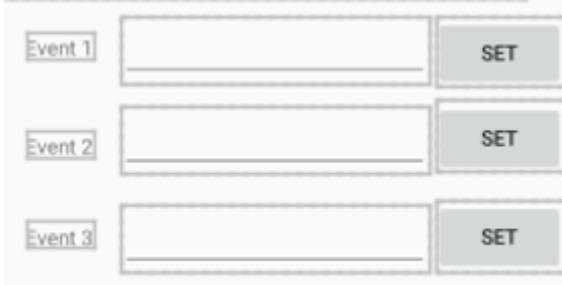
Event3

SUBMIT

SET



## 2. Design an App for a Dialog based TimePicker.



Whenever SET button is clicked a TimePicker should popup. Choose the time and set the Time in the EditText and once selected the picker should disappear.

**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/T1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="17dp"
        android:layout_marginEnd="56dp"
        android:text="Event1"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toStartOf="@+id/E1"
        app:layout_constraintHorizontal_bias="0.047"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.264" />

    <TextView
        android:id="@+id/T2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="19dp"
        android:layout_marginEnd="51dp"
        android:text="Event2"
        app:layout_constraintBaseline_toBaselineOf="@+id/E2"
        app:layout_constraintEnd_toStartOf="@+id/E2"
        app:layout_constraintStart_toStartOf="parent" />

    <TextView
        android:id="@+id/T3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="19dp"
        android:layout_marginTop="40dp"
        android:layout_marginEnd="51dp"
        android:text="Event3"
        app:layout_constraintEnd_toStartOf="@+id/E3"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/T2" />

    <EditText
        android:id="@+id/E1"
        android:layout_width="0dp"
```

```
        android:layout_height="49dp"
        android:layout_marginEnd="26dp"
        android:ems="10"
        android:inputType="time"
        app:layout_constraintBottom_toBottomOf="@+id/B1"
        app:layout_constraintEnd_toStartOf="@+id/B1"
        app:layout_constraintStart_toEndOf="@+id/T1"
        tools:ignore="SpeakableTextPresentCheck" />

    <EditText
        android:id="@+id/E2"
        android:layout_width="0dp"
        android:layout_height="49dp"
        android:layout_marginTop="66dp"
        android:layout_marginEnd="29dp"
        android:layout_marginBottom="66dp"
        android:ems="10"
        android:inputType="time"
        app:layout_constraintBottom_toBottomOf="@+id/B3"
        app:layout_constraintEnd_toStartOf="@+id/B2"
        app:layout_constraintStart_toEndOf="@+id/T2"
        app:layout_constraintTop_toTopOf="@+id/E1"
        tools:ignore="SpeakableTextPresentCheck" />

    <EditText
        android:id="@+id/E3"
        android:layout_width="0dp"
        android:layout_height="49dp"
        android:layout_marginTop="26dp"
        android:layout_marginEnd="29dp"
        android:ems="10"
        android:inputType="time"
        app:layout_constraintEnd_toStartOf="@+id/B3"
        app:layout_constraintStart_toEndOf="@+id/T3"
        app:layout_constraintTop_toBottomOf="@+id/B2"
        tools:ignore="SpeakableTextPresentCheck" />

    <Button
        android:id="@+id/B1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="175dp"
        android:layout_marginEnd="22dp"
        android:text="SET"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/E1"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/B2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:layout_marginEnd="22dp"
        android:text="SET"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/E2"
        app:layout_constraintTop_toBottomOf="@+id/B1" />

    <Button
        android:id="@+id/B3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="22dp"
        android:text="SET"
        app:layout_constraintBaseline_toBaselineOf="@+id/E3"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/E3" />

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

**Java:**

### TimeDialog.java:

```
package com.example.timepopup;

import android.app.Dialog;
import android.app.TimePickerDialog;
import android.os.Bundle;
import android.text.format.Time;

import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.fragment.app.DialogFragment;

import java.util.Calendar;

public class TimeDialog extends DialogFragment
{
    @NonNull
    @Override
    public Dialog onCreateDialog(@Nullable Bundle savedInstanceState) {
        Calendar c=Calendar.getInstance();
        int hours =c.get(Calendar.HOUR_OF_DAY);
        int minutes=c.get(Calendar.MINUTE);
        TimePickerDialog TPD=new
TimePickerDialog(getActivity(),(TimePickerDialog.OnTimeSetListener) getActivity(),hou
rs,minutes,true);
        return TPD;
    }
}
```

### MainActivity.java:

```
package com.example.lab21;

import androidx.appcompat.app.AppCompatActivity;

import android.app.TimePickerDialog;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.TimePicker;

import com.example.MainActivity2.TimeDialog;

public class MainActivity extends AppCompatActivity implements
TimePickerDialog.OnTimeSetListener {
    TextView T1,T2,T3;
    EditText E1,E2,E3;
    Button B1,B2,B3;
    String s;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        T1=findViewById(R.id.T1);
        T2=findViewById(R.id.T2);
        T3=findViewById(R.id.T3);
        E1=findViewById(R.id.E1);
```

```

E2=findViewById(R.id.E2);
E3=findViewById(R.id.E3);
B1=findViewById(R.id.B1);
B2=findViewById(R.id.B2);
B3=findViewById(R.id.B3);
B1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {

        TimeDialog T=new TimeDialog();

        T.show(getSupportFragmentManager(),"TimePicker");
        s=T.getTag();

    }
});
B2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {

        TimeDialog T=new TimeDialog();
        T.show(getSupportFragmentManager(),"TimePicker1");
        s=T.getTag();

    }
});
B3.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {

        TimeDialog T=new TimeDialog();
        T.show(getSupportFragmentManager(),"TimePicker2");
        s=T.getTag();

    }
});

@Override
public void onTimeSet(TimePicker timePicker, int i, int i1) {
    if(s.equals("TimePicker"))

        E1.setText(String.valueOf(i) + ":" + String.valueOf(i1));

    else if(s.equals("TimePicker1"))
    {
        E2.setText(String.valueOf(i) + ":" + String.valueOf(i1));
    }
    else
    {
        E3.setText(String.valueOf(i) + ":" + String.valueOf(i1));
    }

}
}

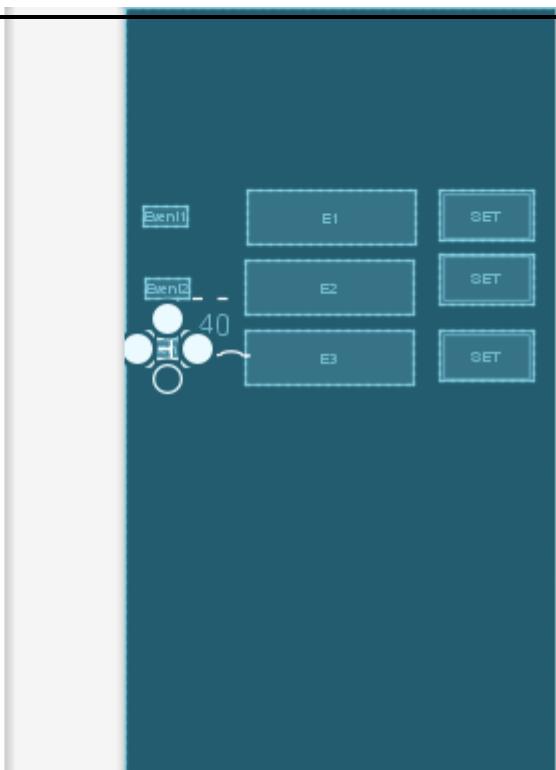
```

**Output:**



Event1  
Event2  
Event3

SET  
SET  
SET



Event1  
Event2  
Event3

E1  
E2  
E3

SET  
SET  
SET

## TimePOPUp

Event1      3:16      SET

Event2      19:35      SET

Event3      13:16      SET

# Mobile Application Development LAB

---

NAME: Darsi S S V GoPi Krishna

REGNO: 19BCE7360

1. Design an app that creates dynamic adding and removing of chip buttons.

## Java:

```
package com.example.lab8;

import androidx.appcompat.app.AppCompatActivity;

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

import com.google.android.material.chip.Chip;
import com.google.android.material.chip.ChipGroup;

public class MainActivity extends AppCompatActivity {
    Button b1,b2;
    ChipGroupc;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        b1 = findViewById(R.id.b1);
        b2 = findViewById(R.id.b2);
        c = findViewById(R.id.chipgr);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Chip chip = new Chip(MainActivity.this);
                chip.setCloseIconVisible(true);
                c.addView(chip);
                chip.setOnCloseIconClickListener(new View.OnClickListener() {
                    @Override
                    public void onClick(View v) {
                        c.removeView(chip);
                    }
                });
            }
        );
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                c.removeView(chip);
            }
        });
    }
}
```

```

        });
    }
});
}

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/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="75dp"
        android:layout_marginBottom="137dp"
        android:text="create"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

    <Button
        android:id="@+id/b2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="59dp"
        android:text="delete"
        app:layout_constraintBottom_toBottomOf="@+id/b1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="@+id/b1" />

    <com.google.android.material.chip.ChipGroup
        android:id="@+id/chipgr"
        android:layout_width="332dp"
        android:layout_height="415dp"
        android:layout_marginStart="44dp"
        android:layout_marginTop="88dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

    </com.google.android.material.chip.ChipGroup>
</androidx.constraintlayout.widget.ConstraintLayout>
```

### **Output:**



CREATE

DELETE



CREATE

DELETE



CREATE

DELETE

2. Design an App for the Gmail header. Whenever the user enters an email in the “To” section create a chip button with photo and the email. It should also contain close button to remove the chip button.

**Java:**

```
package com.example.lab21;

import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.Spinner;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    Spinner s;

    String mailList[] = {"heyfromrachel@gamil.com", "heyfromsmith@gmail.com"};
    //ListView simpleListView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        s=findViewById(R.id.spinner);
        ArrayAdapter<CharSequence> ad = new
        ArrayAdapter(getApplicationContext(),
        android.R.layout.simple_spinner_item,mailList);
        ad.setDropDownViewResource(
            android.R.layout
                .simple_spinner_dropdown_item);
        s.setAdapter(ad);

    }
}

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/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="24dp"
        android:layout_marginEnd="25dp"
        android:layout_marginBottom="40dp"
        android:text="To"
        app:layout_constraintBottom_toTopOf="@+id/editTextTextPersonName"
        app:layout_constraintEnd_toStartOf="@+id/chipGroup"
    </>
```

```
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/spinner" />

    <com.google.android.material.chip.ChipGroup
        android:id="@+id/chipGroup"
        android:layout_width="0dp"
        android:layout_height="37dp"
        android:layout_marginTop="72dp"
        android:layout_marginEnd="27dp"
        android:layout_marginBottom="77dp"
        app:layout_constraintBottom_toBottomOf="@+id/editTextTextPersonName"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/textView"
        app:layout_constraintTop_toTopOf="@+id/spinner"
        app:layout_constraintVertical_bias="0.258">

        <com.google.android.material.chip.Chip
            android:id="@+id/chip4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Smith" />

        <com.google.android.material.chip.Chip
            android:id="@+id/chip5"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Jayanth" />

    </com.google.android.material.chip.ChipGroup>

    <EditText
        android:id="@+id/editTextTextPersonName"
        android:layout_width="361dp"
        android:layout_height="69dp"
        android:layout_marginStart="9dp"
        android:layout_marginEnd="9dp"
        android:layout_marginBottom="16dp"
        android:ems="10"
        android:hint="Subject"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/editTextTextPersonName2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView" />

    <EditText
        android:id="@+id/editTextTextPersonName2"
        android:layout_width="366dp"
        android:layout_height="220dp"
        android:layout_marginStart="3dp"
        android:layout_marginEnd="3dp"
        android:layout_marginBottom="251dp"
        android:ems="10"
        android:hint="Message"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName" />

    <Spinner
        android:id="@+id/spinner"
        android:layout_width="375dp"
        android:layout_height="50dp"
```

```
        android:layout_marginStart="9dp"
        android:layout_marginTop="25dp"
        android:layout_marginEnd="9dp"
        android:layout_marginBottom="38dp"
    app:layout_constraintBottom_toTopOf="@+id/textView"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

**Output:**

10:36

Voice WiFi 90%

lab8

heyfromrachel@gamil.com



To

Smith

Gopi

Subject

---

Message

---

---

10:36

WiFi 90% 

lab8

heyfromrachel@gamil.com



To

Smith

Gopi

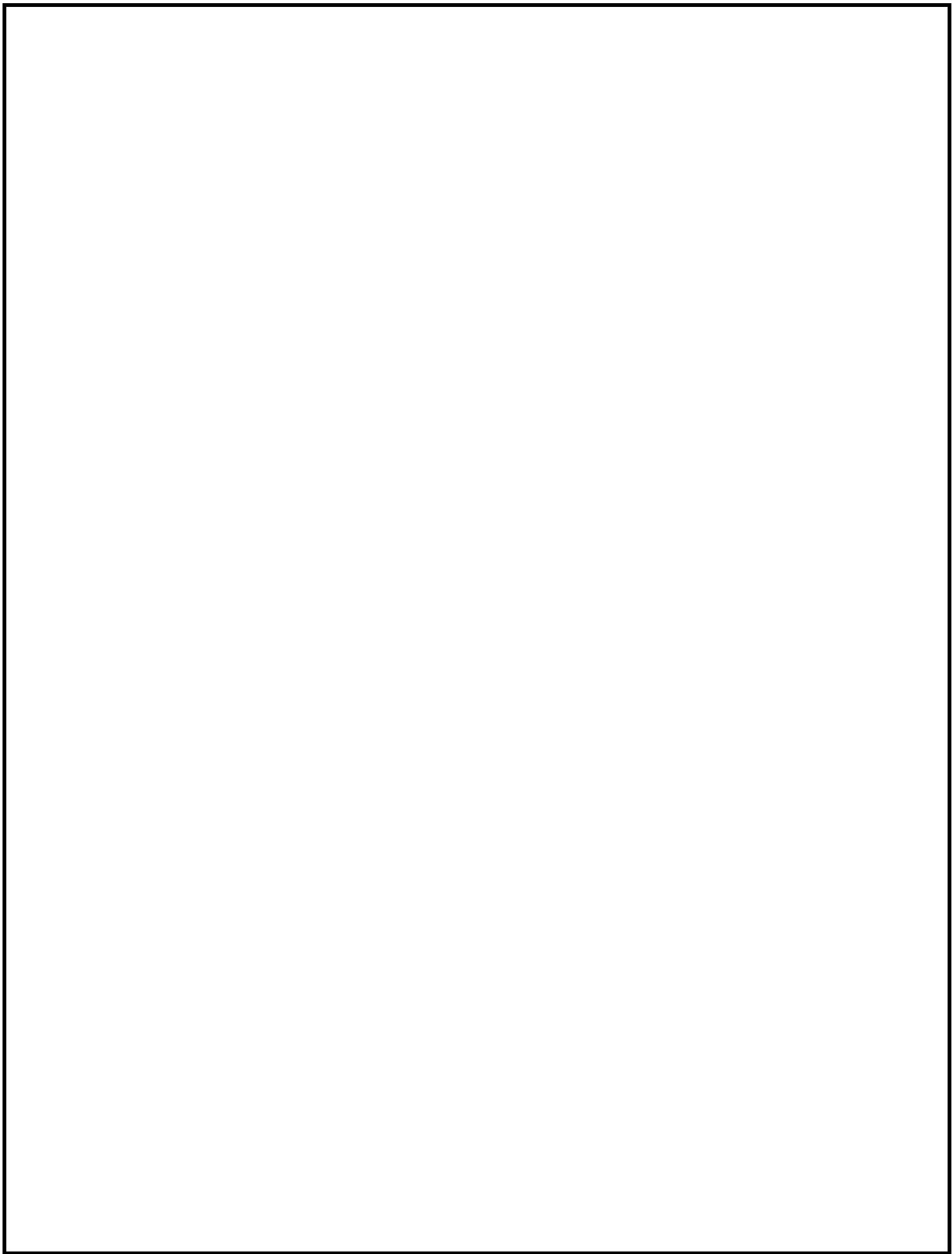
gopi

---

mad

---

---



NAME: DARSI S S V GOPI KRISHNA

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LAB: CSE4002 Mobile Application Development LAB

Design an app to display the below 3 imageView, 3 TextView, 3 buttons. Three Buttons (-, Add,+) are there. Oncreate only Add button is visible. If you click the button add it should display the “-“ and “+” button.



code:

xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    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:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">
    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="200dp">
        <ImageView
            android:id="@+id/image1"
            android:layout_width="128dp"
            android:layout_height="128dp"
            android:layout_margin="16dp"
            android:scaleType="fitXY"
            android:src="@drawable/i1"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />
        <TextView
            android:id="@+id/text1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_margin="16dp"
            android:text="Aamras Mango Fruit Juice"
            android:textColor="#000000"
            android:textSize="16sp" />
        <Spinner
            android:id="@+id/spinner1"
            android:layout_width="128dp"
            android:layout_height="32dp"
            android:layout_margin="16dp" />
        <TextButton
            android:id="@+id/button1"
            android:layout_width="128dp"
            android:layout_height="32dp"
            android:layout_margin="16dp" />
    
```

```
        android:id="@+id/title1"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginHorizontal="16dp"
        android:text="Aamras Mango Fruit Juice"
        android:textColor="#DEEE9E9"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/image1"
        app:layout_constraintTop_toTopOf="@+id/image1" />

    <LinearLayout
        android:id="@+id/qty_container1"
        android:layout_width="128dp"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:visibility="invisible"
        app:layout_constraintBottom_toBottomOf="@+id/image1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/image1"
        app:layout_constraintTop_toBottomOf="@+id/title1">

        <Button
            android:id="@+id/decreaseButton1"

            style="@style/Widget.MaterialComponents.Button.OutlinedButton"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="-"
            android:textColor="#DEF6F2F2"
            android:textSize="20sp"
            android:textStyle="bold" />

        <TextView
            android:id="@+id/qty_textView1"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            tools:text="1"
            android:paddingVertical="5dp"
            android:background="?colorPrimary"
            android:textSize="20sp"
            android:textColor="#fff"
            android:gravity="center"
            android:layout_weight="1"/>

        <Button
            android:id="@+id/increaseButton1"

            style="@style/Widget.MaterialComponents.Button.OutlinedButton"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="+"
            android:textColor="#DEEE9E6"
            android:textSize="20sp"
            android:textStyle="bold" />
    </LinearLayout>

    <Button
        android:id="@+id/addButton1"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:text="Add"
        app:layout_constraintBottom_toBottomOf="@+id/qty_container1"
        app:layout_constraintEnd_toEndOf="@+id/qty_container1"
        app:layout_constraintStart_toStartOf="@+id/qty_container1" />
</androidx.constraintlayout.widget.ConstraintLayout>
<androidx.constraintlayout.widget.ConstraintLayout>
```

```
        android:layout_width="match_parent"
        android:layout_height="200dp">
    <ImageView
        android:id="@+id/image2"
        android:layout_width="128dp"
        android:layout_height="128dp"
        android:layout_margin="16dp"
        android:scaleType="fitXY"
        android:src="@drawable/i2"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/title2"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginHorizontal="16dp"
        android:text="Aamras Mango Fruit Juice"
        android:textColor="#DEF4ECEC"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/image2"
        app:layout_constraintTop_toTopOf="@+id/image2" />

    <LinearLayout
        android:id="@+id/qty_container2"
        android:layout_width="128dp"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:visibility="invisible"
        app:layout_constraintBottom_toBottomOf="@+id/image2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/image2"
        app:layout_constraintTop_toBottomOf="@+id/title2">

        <Button
            android:id="@+id/decreaseButton2"
            style="@style/Widget.MaterialComponents.Button.OutlinedButton"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="-"
            android:textColor="#DEF8F5F5"
            android:textSize="20sp"
            android:textStyle="bold" />
        <TextView
            android:id="@+id/qty_textView2"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            tools:text="1"
            android:paddingVertical="5dp"
            android:background="?colorPrimary"
            android:textSize="20sp"
            android:textColor="#fff"
            android:gravity="center"
            android:layout_weight="1"/>

        <Button
            android:id="@+id/increaseButton2"
            style="@style/Widget.MaterialComponents.Button.OutlinedButton"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="+"
            android:textColor="#DEEFEEEE"
```

```
        android:textSize="20sp"
        android:textStyle="bold" />
    </LinearLayout>

    <Button
        android:id="@+id/addButton2"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:text="Add"
        app:layout_constraintBottom_toBottomOf="@+id/qty_container2"
        app:layout_constraintEnd_toEndOf="@+id/qty_container2"
        app:layout_constraintStart_toStartOf="@+id/qty_container2" />
</androidx.constraintlayout.widget.ConstraintLayout>
<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="200dp">
    <ImageView
        android:id="@+id/image3"
        android:layout_width="128dp"
        android:layout_height="128dp"
        android:layout_margin="16dp"
        android:scaleType="fitXY"
        android:src="@drawable/i13"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/title3"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginHorizontal="16dp"
        android:text="Juice - Mango Refresh"
        android:textColor="#DEF4EBEB"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/image3"
        app:layout_constraintTop_toTopOf="@+id/image3" />

    <LinearLayout
        android:id="@+id/qty_container3"
        android:layout_width="128dp"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:visibility="invisible"
        app:layout_constraintBottom_toBottomOf="@+id/image3"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toEndOf="@+id/image3"
        app:layout_constraintTop_toBottomOf="@+id/title3">

        <Button
            android:id="@+id/decreaseButton3"
            style="@style/Widget.MaterialComponents.Button.OutlinedButton"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="-"
            android:textColor="#DEF1EAEA"
            android:textSize="20sp"
            android:textStyle="bold" />
        <TextView
            android:id="@+id/qty_textView3"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            tools:text="1"
            android:paddingVertical="5dp"
            android:background="?colorPrimary"
```

```

        android:textSize="20sp"
        android:textColor="#fff"
        android:gravity="center"
        android:layout_weight="1"/>

    <Button
        android:id="@+id/increaseButton3"

style="@style/Widget.MaterialComponents.Button.OutlinedButton"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="+"
        android:textColor="#DEF6F2F2"
        android:textSize="20sp"
        android:textStyle="bold" />
</LinearLayout>

<Button
    android:id="@+id/addButton3"
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:text="Add"
    app:layout_constraintBottom_toBottomOf="@+id/qty_container3"
    app:layout_constraintEnd_toEndOf="@+id/qty_container3"
    app:layout_constraintStart_toStartOf="@+id/qty_container3" />
</androidx.constraintlayout.widget.ConstraintLayout>
</LinearLayout>

```

### java:

```

package com.example.lab21;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;

import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity{
    private final View[] qtyContainers = new View[3];
    private final Button[] increaseButtons = new Button[3];
    private final Button[] decreaseButtons = new Button[3];
    private final Button[] addButtons = new Button[3];
    private final TextView[] qtyTextViews = new TextView[3];
    private final int[] quantities = {0,0,0};
    ImageView i1,i2,i3;

    public MainActivity() {
    }

    @Override
    protected void onCreate(@Nullable Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        i1=findViewById(R.id.image1);
        i2=findViewById(R.id.image2);
        i3=findViewById(R.id.image3);
        i1.setImageResource(R.drawable.ii1);
        i2.setImageResource(R.drawable.ii2);
        i3.setImageResource(R.drawable.ii3);
        qtyContainers[0] = findViewById(R.id.qty_container1);
        qtyContainers[1] = findViewById(R.id.qty_container2);
        qtyContainers[2] = findViewById(R.id.qty_container3);
        increaseButtons[0] = findViewById(R.id.increaseButton1);

```

## output:

lab21



### Aamras Mango Fruit Juice

- 2 +



### Aamras Mango Fruit Juice

- 3 +



### Juice - Mango Refresh

- 1 +

lab21



## Aamras Mango Fruit Juice

- 2 +



## Aamras Mango Fruit Juice

ADD



## Juice - Mango Refresh

ADD

11:18

0.68  
KB/S WiFi X 57% 

lab21



### Aamras Mango Fruit Juice

ADD



### Aamras Mango Fruit Juice

ADD

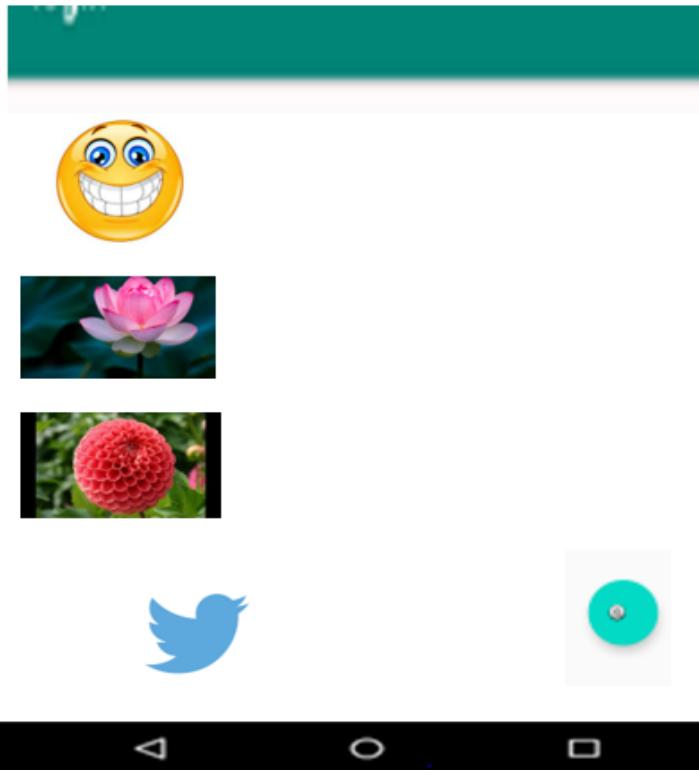


### Juice - Mango Refresh

ADD



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:

Xml:

Main Activity.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/floatingActionButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="17dp"
        android:layout_marginBottom="67dp"
        android:clickable="true"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:srcCompat="@android:drawable/ic_input_add" />

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="wrap_content"
```

```

        android:layout_height="wrap_content"
        android:layout_marginStart="38dp"
        android:layout_marginTop="83dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@drawable/i1" />

    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="40dp"
        android:layout_marginTop="28dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView"
        app:srcCompat="@drawable/i2" />

    <ImageView
        android:id="@+id/imageView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="2dp"
        android:layout_marginTop="28dp"
        app:layout_constraintStart_toStartOf="@+id/imageView2"
        app:layout_constraintTop_toBottomOf="@+id/imageView2"
        app:srcCompat="@drawable/i3" />

    <ImageView
        android:id="@+id/imageView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="11dp"
        android:layout_marginTop="36dp"
        app:layout_constraintStart_toStartOf="@+id/imageView3"
        app:layout_constraintTop_toBottomOf="@+id/imageView3"
        app:srcCompat="@drawable/i4" />
    </androidx.constraintlayout.widget.ConstraintLayout>

```

#### 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="2000"
          android:fromXScale="1.0"
          android:fromYScale="1.0"
          android:pivotX="20%"
          android:pivotY="20%"
          android:toXScale="3.0"
          android:toYScale="3.0"
          />
    <alpha
          android:duration="2000"
          android:fromAlpha="1.0"
          android:toAlpha="2.0"

          />
    <rotate
          android:duration="2000"
          android:fromDegrees="0"
          android:toDegrees="25"
          android:pivotX="20%"
          android:pivotY="20%"
          />

```

```

<translate
    android:fromXDelta="0%p"
    android:toXDelta="20%p"
    android:duration= "2000"/>

</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="2000"
        android:fromXScale="3.0"
        android:fromYScale="3.0"
        android:pivotX="20%"
        android:pivotY="20%"
        android:toXScale="1.0"
        android:toYScale="1.0"
    />
    <alpha
        android:duration="2000"
        android:fromAlpha="2.0"
        android:toAlpha="1.0"

    />
    <rotate
        android:duration="2000"
        android:fromDegrees="25"
        android:toDegrees="0"
        android:pivotX="20%"
        android:pivotY="20%"
    />
    <translate
        android:fromXDelta="20%p"
        android:toXDelta="0%p"
        android:duration= "2000"/>
</set>

```

Java:

```

package com.example.fab;

import static com.example.fab.R.animator.fab_open;

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<booleanisOpen> AppCompatActivity {

    Animation fab_open,fab_close;
    FloatingActionButtonfb;
    ImageViewi1,i2,i3,i4;
    booleanisOpen,isClose;
    @SuppressLint("ResourceType")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        i1=findViewById(R.id.imageView);

```

```
i2=findViewById(R.id.imageView2);
i3=findViewById(R.id.imageView3);
i4=findViewById(R.id.imageView4);
i1.setImageResource(R.drawable.i1);
i2.setImageResource(R.drawable.i2);
i3.setImageResource(R.drawable.i3);
i4.setImageResource(R.drawable.i4);
fb=(FloatingActionButton)findViewById(R.id.floatingActionButton);
fab_open= AnimationUtils.loadAnimation(getApplicationContext(),
R.animator.fab_open);
fab_close=
AnimationUtils.loadAnimation(getApplicationContext(),R.animator.fab_close);
fb.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        if(!isOpen)
        {
            i1.startAnimation(fab_open);
            i2.startAnimation(fab_open);
            i3.startAnimation(fab_open);
            i4.startAnimation(fab_open);
            isOpen=true;
        }
        else{
            i1.startAnimation(fab_close);
            i2.startAnimation(fab_close);
            i3.startAnimation(fab_close);
            i4.startAnimation(fab_close);
            isOpen=false;
        }
    }
});
```

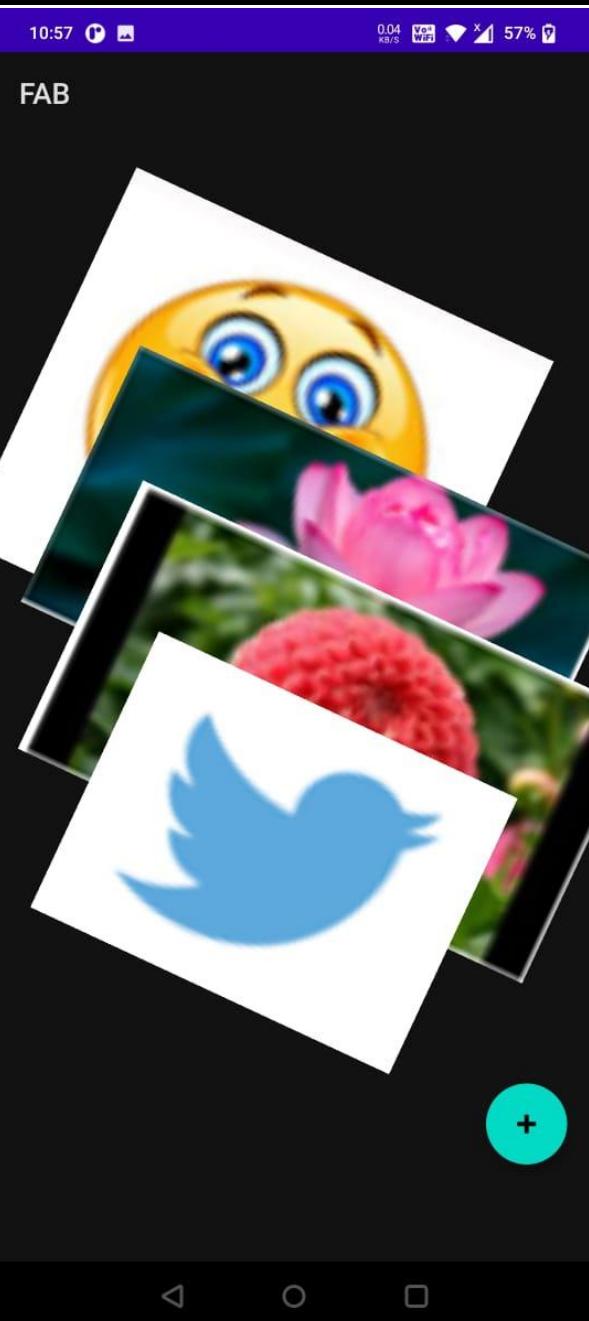
Output:

10:57

0.04  
KB/S WiFi X 57%

FAB





10:57

4.79 WiFi X 57%

FAB



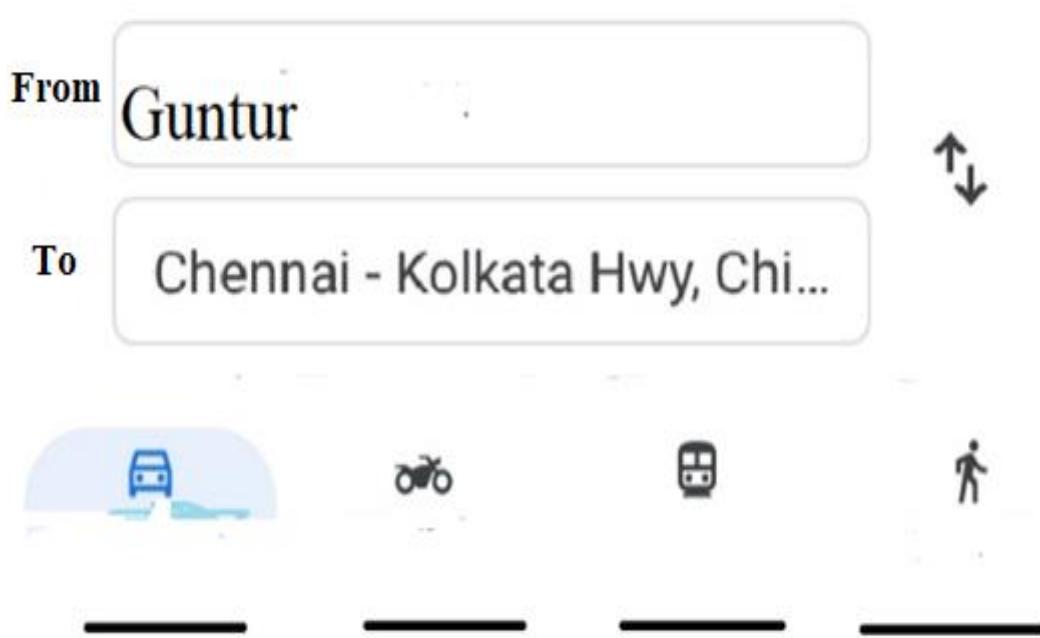
**NAME: DARSI S S V GOPI KRISHNA**

**REGNO:19BCE7360**

**LAB: CSE4002 Mobile Application Development LAB**

**LAB: CSE4002 Mobile Application Development LAB**

Design an App Activity that finds the distance between Guntur to Chennai. When the image buttons car is clicked then the time 7hrs should display in the textfield1, when bike is clicked 9hrs should display in second textfield, when train image button is presses 6hrs should display and when run image button is presses then 40hrs should display in fouthtextfiled. When the arrow button is clicked, the editText should be swapped.



**Main activity java:**

```
package com.example.distanceapp;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.ImageButton;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
```

```
EditText e1 = findViewById(R.id.editText1);
EditText e2 = findViewById(R.id.editText2);
ImageButton i1 = findViewById(R.id.imageButton1);
ImageButton i2 = findViewById(R.id.imageButton2);
ImageButton i3 = findViewById(R.id.imageButton3);
ImageButton i4 = findViewById(R.id.imageButton4);
ImageButton i5 = findViewById(R.id.imageButton5);
TextView t1 = findViewById(R.id.textView3);
TextView t2 = findViewById(R.id.textView4);
TextView t3 = findViewById(R.id.textView5);
TextView t4 = findViewById(R.id.textView6);
i1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String temp = e1.getText().toString();
        e1.setText(e2.getText().toString());
        e2.setText(temp);
    }
});
i2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        t1.setText("7hrs");
    }
});
i3.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        t2.setText("9hrs");
    }
});
i4.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        t3.setText("6hrs");
    }
});
i5.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        t4.setText("40hrs");
    }
});
```

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="0dp"
        android:layout_height="70dp"
        android:layout_marginStart="16dp"
        android:layout_marginTop="64dp"
        ...>
```

```
        android:layout_marginEnd="13dp"
        android:layout_marginBottom="60dp"
        app:layout_constraintBottom_toBottomOf="@+id/textView3"
        app:layout_constraintEnd_toStartOf="@+id/imageButton3"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2"
        app:srcCompat="@drawable/car"
        tools:ignore="SpeakableTextPresentCheck, TouchTargetSizeCheck" />

<ImageButton
    android:id="@+id/imageButton3"
    android:layout_width="71dp"
    android:layout_height="0dp"
    android:layout_marginStart="73dp"
    android:layout_marginTop="1dp"
    android:layout_marginEnd="74dp"
    android:layout_marginBottom="1dp"
    app:layout_constraintBottom_toBottomOf="@+id/imageButton4"
    app:layout_constraintEnd_toStartOf="@+id/textView5"
    app:layout_constraintStart_toStartOf="@+id/textView2"
    app:layout_constraintTop_toTopOf="@+id/imageButton2"
    app:srcCompat="@drawable/bike"
    tools:ignore="SpeakableTextPresentCheck, TouchTargetSizeCheck" />

<ImageButton
    android:id="@+id/imageButton4"
    android:layout_width="67dp"
    android:layout_height="0dp"
    android:layout_marginStart="94dp"
    android:layout_marginEnd="96dp"
    app:layout_constraintBottom_toBottomOf="@+id/imageButton2"
    app:layout_constraintEnd_toEndOf="@+id/imageButton5"
    app:layout_constraintStart_toStartOf="@+id/imageButton3"
    app:layout_constraintTop_toTopOf="@+id/imageButton2"
    app:srcCompat="@drawable/train"
    tools:ignore="SpeakableTextPresentCheck, TouchTargetSizeCheck" />

<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="21dp"
    android:text="To"
    android:textColor="#179E1C"
    android:textStyle="bold"
    app:layout_constraintBaseline_toBaselineOf="@+id/editText2"
    app:layout_constraintStart_toStartOf="parent" />

<TextView
    android:id="@+id/textView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="13dp"
    android:text="From"
    android:textColor="#179E1C"
    android:textStyle="bold"
    app:layout_constraintBaseline_toBaselineOf="@+id/editText1"
    app:layout_constraintStart_toStartOf="parent" />

<EditText
    android:id="@+id/editText1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="12dp"
    android:layout_marginTop="86dp"
    android:background="#FFFFFF"
```

```
    android:ems="10"
    android:inputType="textPersonName"
    android:minHeight="48dp"
    android:textColor="#2F49D5"
    app:layout_constraintStart_toEndOf="@+id/textView1"
    app:layout_constraintTop_toTopOf="parent"
    tools:ignore="SpeakableTextPresentCheck" />

<EditText
    android:id="@+id/editText2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="21dp"
    android:layout_marginTop="42dp"
    android:background="#FFFFFF"
    android:ems="10"
    android:inputType="textPersonName"
    android:minHeight="48dp"
    android:textColor="#2F49D5"
    app:layout_constraintStart_toEndOf="@+id/textView2"
    app:layout_constraintTop_toBottomOf="@+id/editText1"
    tools:ignore="SpeakableTextPresentCheck" />

<ImageButton
    android:id="@+id/imageButton1"
    android:layout_width="50dp"
    android:layout_height="50dp"
    android:layout_marginEnd="44dp"
    app:layout_constraintBottom_toTopOf="@+id/editText2"
    app:layout_constraintEnd_toEndOf="parent"
    app:srcCompat="@drawable/to"
    tools:ignore="TouchTargetSizeCheck, SpeakableTextPresentCheck" />

<ImageButton
    android:id="@+id/imageButton5"
    android:layout_width="0dp"
    android:layout_height="0dp"

    android:layout_marginTop="1dp"
    android:layout_marginBottom="1dp"
    app:layout_constraintBottom_toBottomOf="@+id/imageButton4"
    app:layout_constraintEnd_toEndOf="@+id/textView6"
    app:layout_constraintStart_toStartOf="@+id/textView6"
    app:layout_constraintTop_toTopOf="@+id/imageButton3"
    app:srcCompat="@drawable/walk"
    tools:ignore="SpeakableTextPresentCheck, SpeakableTextPresentCheck, TouchTargetSizeCheck" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="37dp"
    android:layout_marginBottom="326dp"
    android:textColor="#E6420F"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="parent" />

<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="41dp"
    android:layout_marginEnd="21dp"
    android:textColor="#E6420F"
    app:layout_constraintEnd_toEndOf="@+id/imageButton3"
```

```

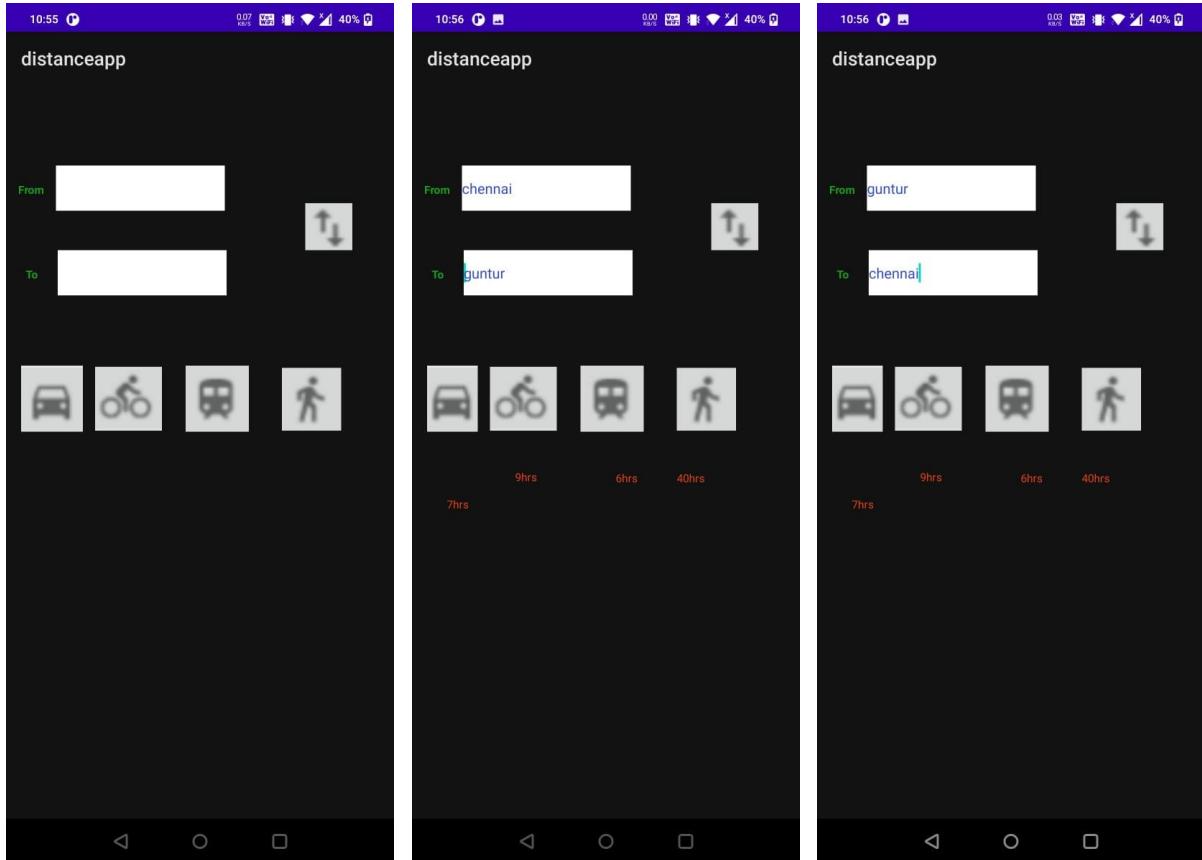
    app:layout_constraintTop_toBottomOf="@+id/imageButton3" />

<TextView
    android:id="@+id/textView5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="41dp"
    android:layout_marginEnd="172dp"
    android:textColor="#E6420F"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/imageButton4" />

<TextView
    android:id="@+id/textView6"
    android:layout_width="63dp"
    android:layout_height="32dp"
    android:layout_marginStart="53dp"
    android:layout_marginEnd="56dp"
    android:textColor="#E6420F"
    app:layout_constraintBaseline_toBaselineOf="@+id/textView5"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="@+id/textView5" />
</androidx.constraintlayout.widget.ConstraintLayout>

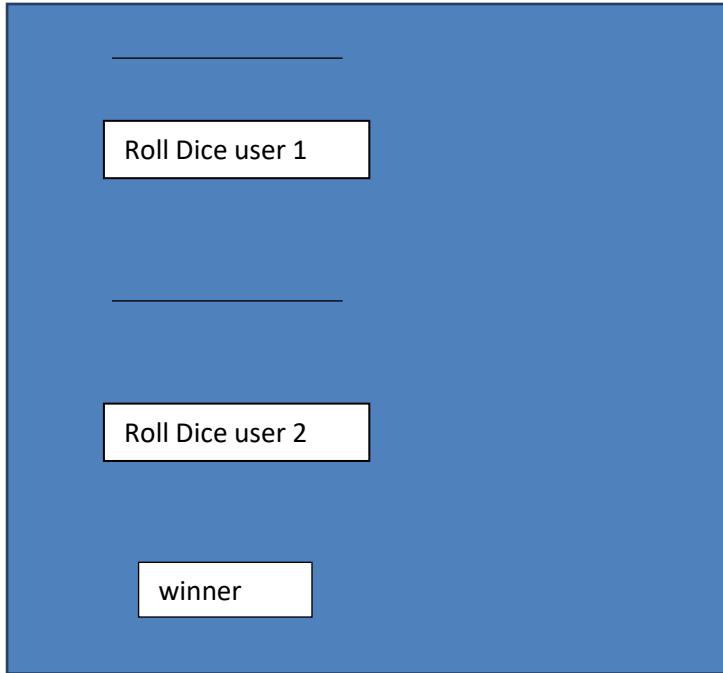
```

## Outputs:



Design an Application that reads a random number between 1 to 6 whenever the user clicks Roll Dice. Do this for both the user. When the Winner button is pressed, the user whose number is greater will be

identified and raise an Alert notification indicating whether user1 or user2 is the winner.



Main activity java:

```
package com.example.dicegame;
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);
        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 player1 & player2");
        } 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();
                }
            });
        builder.setNegativeButton("Roll dice again", new
            DialogInterface.OnClickListener() {
                public void onClick(DialogInterface dialog, int
                    id) {
                    dialog.cancel();
                }
            });
        AlertDialog alert = builder.create();
        alert.show();
    }
});
}
}

```

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 Player1"
        android:textAllCaps="true"
        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"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Roll Dice Player 2"
    android:textAllCaps="true"
    android:textStyle="bold"
    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="true"
    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:

