PRACTICAL:4

AIM: Create a temperature converter Application. (Fahrenheit-Celsius)

Source Code:
Program: activity_main.xml

```
//activity_main.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">

    <Button
        android:id="@+id/celcius"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_alignParentLeft="true"
        android:layout_alignParentTop="true"
        android:layout_marginStart="65dp"
        android:layout_marginLeft="65dp"
        android:layout_marginTop="145dp"
        android:text="to fahrenheit" />

    <Button
        android:id="@+id/fahrenheit"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_alignParentEnd="true"
        android:layout_alignParentRight="true"
        android:layout_marginTop="148dp"
        android:layout_marginEnd="69dp"
        android:layout_marginRight="69dp"
        android:text="to celc" />

    <EditText
        android:id="@+id/tempreture"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
```

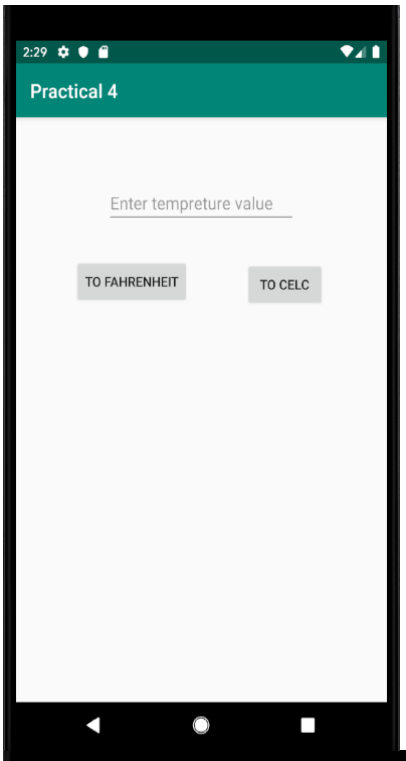
```
    android:layout_marginTop="66dp"
    android:ems="10"
    android:hint="Enter tempreture value"
    android:inputType="numberDecimal" />

  <TextView
    android:id="@+id/answer"
    android:layout_width="197dp"
    android:layout_height="48dp"
    android:layout_below="@+id/tempreture"
    android:layout_alignParentStart="true"
    android:layout_alignParentLeft="true"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout_alignParentBottom="true"
    android:layout_marginStart="96dp"
    android:layout_marginLeft="96dp"
    android:layout_marginTop="145dp"
    android:layout_marginEnd="91dp"
    android:layout_marginRight="91dp"
    android:layout_marginBottom="204dp"
    android:gravity="center"
    android:textSize="20sp"
    android:textStyle="bold" />
</RelativeLayout>
```

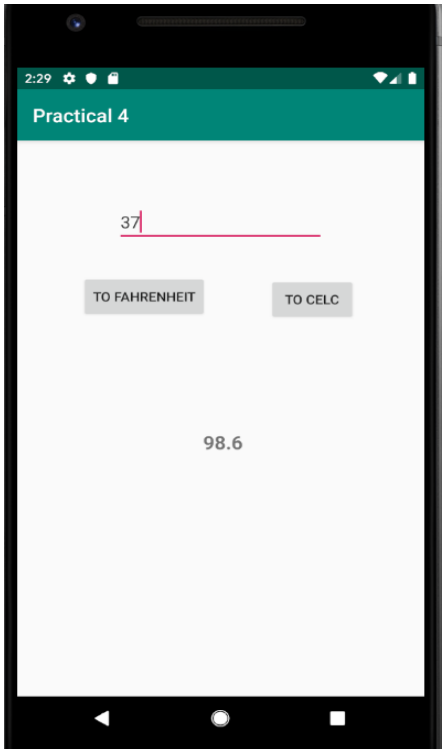
Program: MainActivity.java

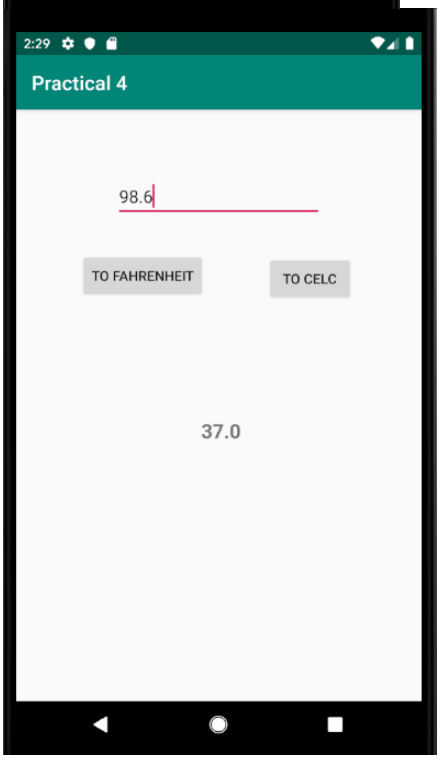
```
//MainActivity.java
package com.example.practical4;

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.Toast;

import static java.lang.String.valueOf;

public class MainActivity extends AppCompatActivity {
   @Override
```

```
   protected void onCreate(Bundle savedInstanceState) {

      super.onCreate(savedInstanceState);
      setContentView(R.layout.activity_main);

      final Button celc = (Button) findViewById(R.id.celcius);
      final Button fahren = (Button) findViewById(R.id.fahrenheit);
      final EditText value  = (EditText) findViewById(R.id.tempreture);
      final TextView ans = (TextView) findViewById(R.id.answer);

      celc.setOnClickListener(new View.OnClickListener() {
         @Override
         public void onClick(View v) {
            if(value.getText().toString().equals(""))
               Toast.makeText(getApplicationContext(), "Please Enter value",
Toast.LENGTH_SHORT).show();
            else{
               float temp = Float.parseFloat(value.getText().toString());
               float fahrenheit = (float) ((9.0/5.0)*temp + 32.0);
               ans.setText(valueOf(fahrenheit));
            }
         }
      });

      fahren.setOnClickListener(new View.OnClickListener() {
         @Override
         public void onClick(View v) {
            if(value.getText().toString().equals(""))
               Toast.makeText(getApplicationContext(), "Please Enter value",
Toast.LENGTH_SHORT).show();
            else{
               float temp = Float.parseFloat(value.getText().toString());
               float celcius = (float) ((temp - 32.0) * (5.0/9.0));
               ans.setText(valueOf(celcius));
            }
         }
      });
   }
}
```

Output:


2:29
Practical 4
Enter tempreture value
TO FAHRENHEIT
TO CELC


2:29
Practical 4
37
TO FAHRENHEIT
TO CELC
98.6


2:29
Practical 4
98.6
TO FAHRENHEIT
TO CELC
37.0