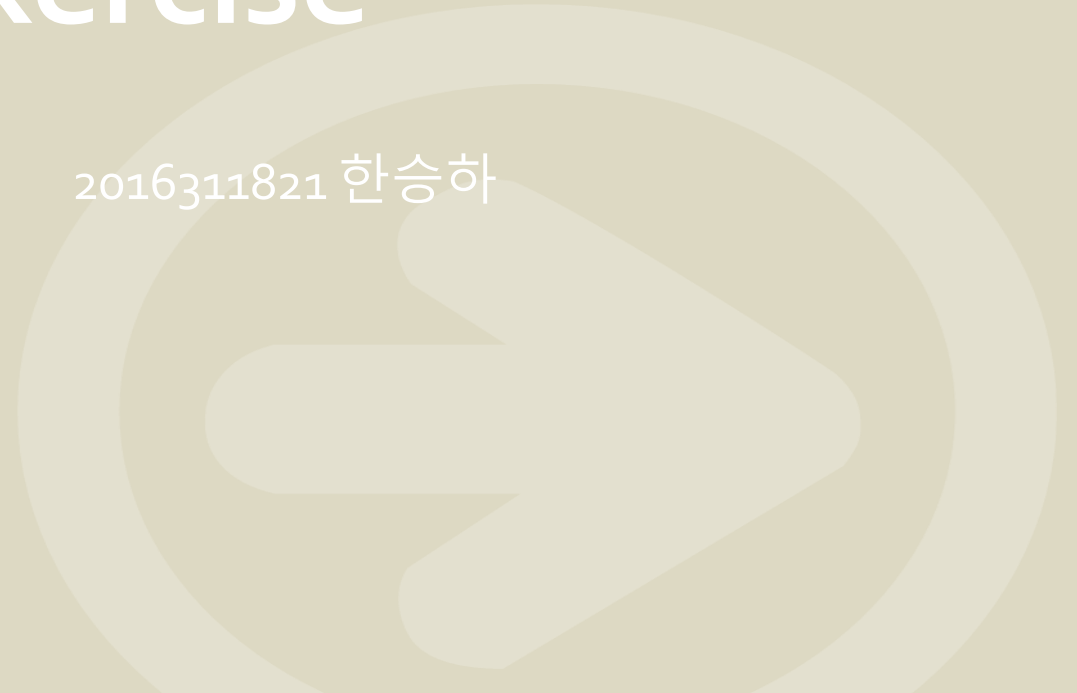


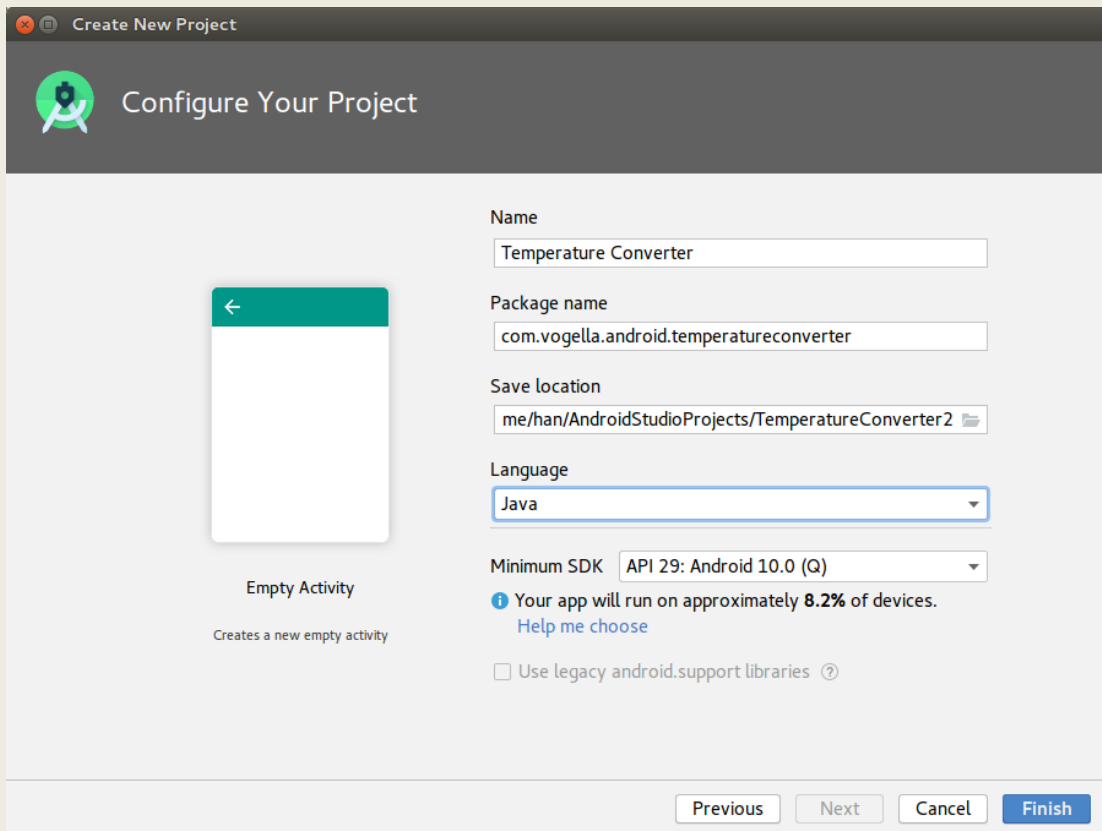


# Embedded System Android Exercise

2016311821 한승하



# Making new project



Create New Project

Configure Your Project

←

Empty Activity  
Creates a new empty activity

Name  
Temperature Converter

Package name  
com.vogella.android.temperatureconverter

Save location  
me/han/AndroidStudioProjects/TemperatureConverter2

Language  
Java

Minimum SDK  
API 29: Android 10.0 (Q)

ⓘ Your app will run on approximately 8.2% of devices.  
[Help me choose](#)

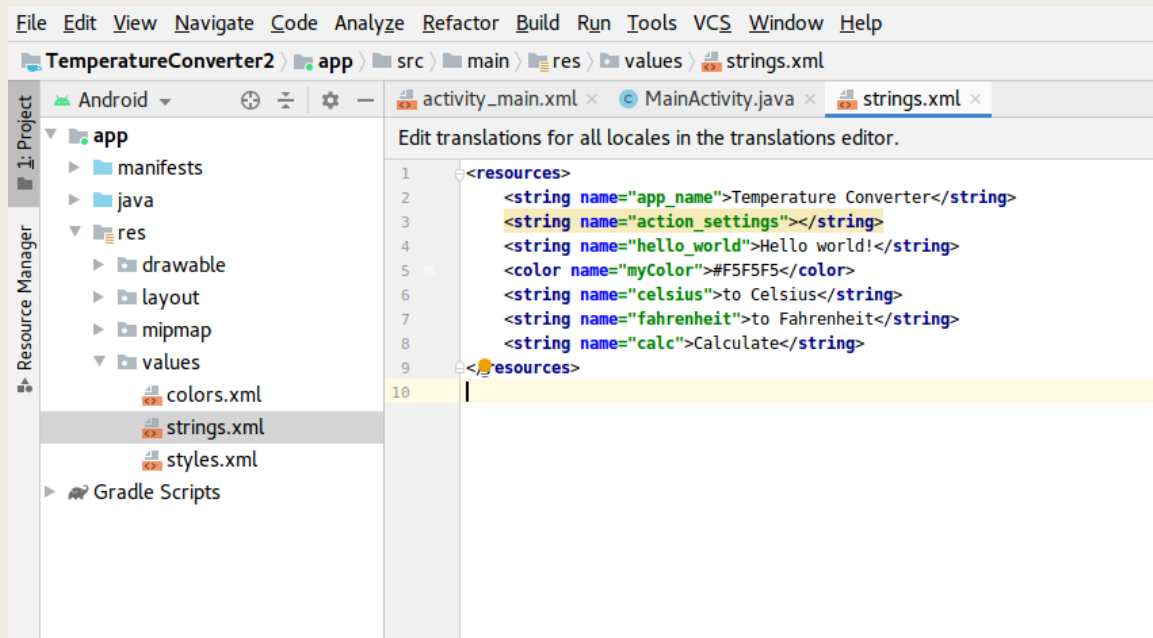
☐ Use legacy android.support libraries ⓘ

Previous Next Cancel Finish

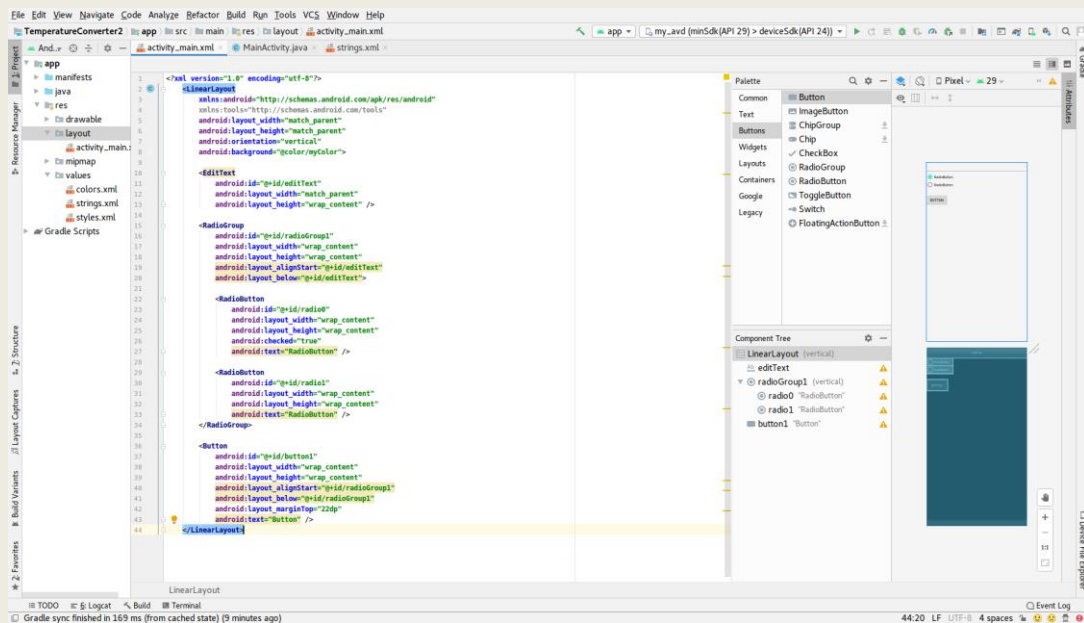
- ❑ 먼저 Temperature convertor를 만들기 위한 새로운 project를 만들어 주었습니다.

# Strings.xml

- 이후 설명에 따라 strings.xml을 설정해 주었습니다.



- ❑ 다음은 activity\_main.xml 파일을 수정하여 applicatio의 화면 layout을 설정해 주었습니다.



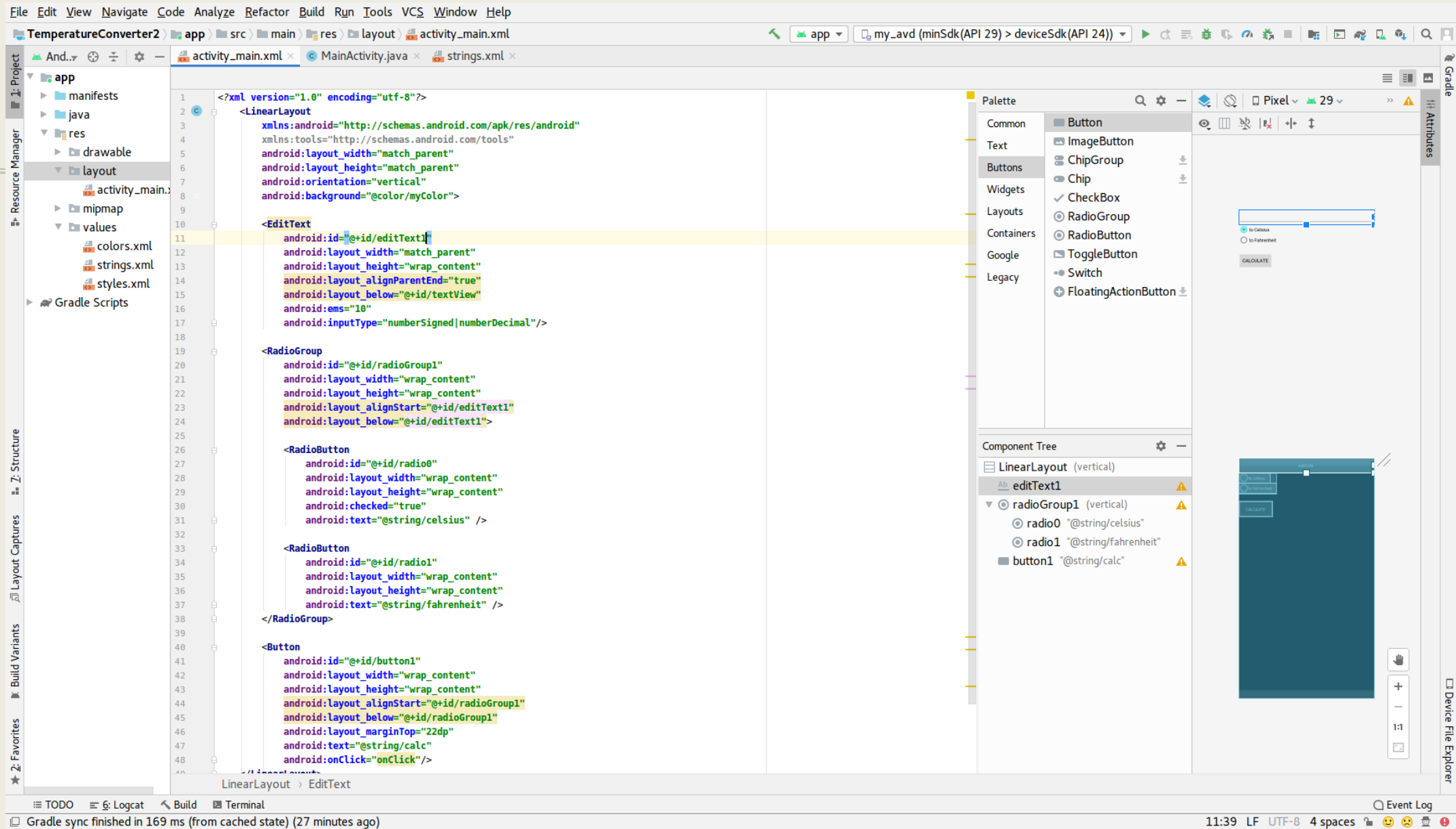
# RadioGroup

- ❑ Radio Group의 상세 코드를 설정해 주었습니다.

```
<RadioGroup
    android:id="@+id/radioGroup1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignStart="@+id/editText"
    android:layout_below="@+id/editText">

    <RadioButton
        android:id="@+id/radio0"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:checked="true"
        android:text="@string/celsius" />

    <RadioButton
        android:id="@+id/radio1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/fahrenheit" />
</RadioGroup>
```



모든 코드 수정을 완료한 버전입니다. Tutorial의 예시를 따라 진행하였습니다.

# Util code



- Util code를 작성해 주었습니다.

```
package com.vogella.android.temperatureconverter;

public class ConverterUtil {
    public static float convertFahrenheitToCelsius(float fahrenheit){
        return ((fahrenheit - 32) * 5 / 9);
    }

    public static float convertCelsiusToFahrenheit(float celsius){
        return ((celsius * 9) / 5 ) + 32;
    }
}
```



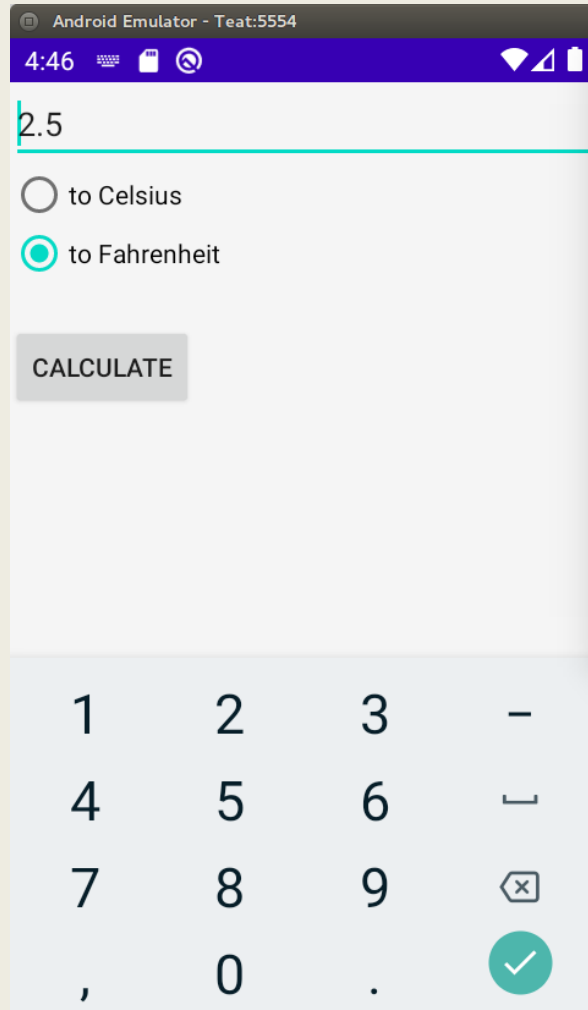
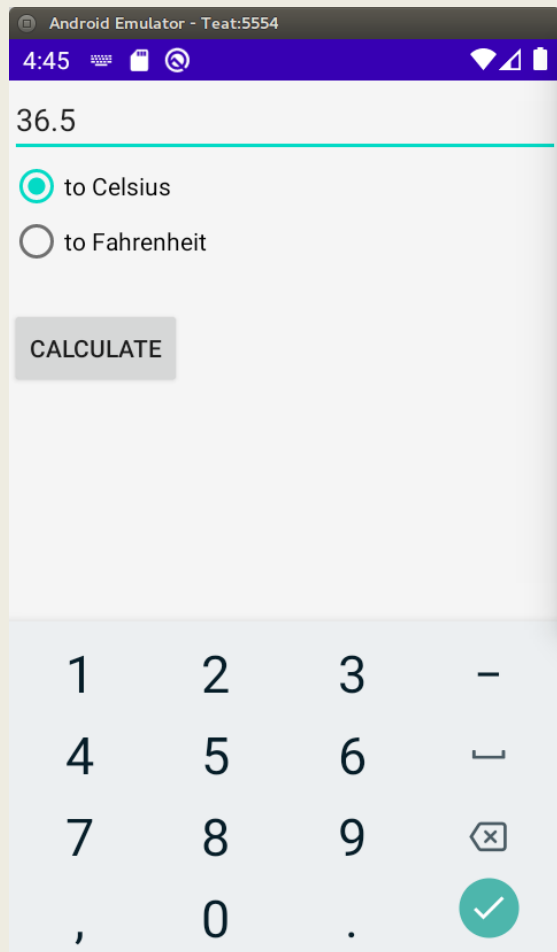
```
1 package com.vogella.android.temperatureconverter;
2
3 import android.app.Activity;
4 import android.os.Bundle;
5 import android.view.View;
6 import android.widget.EditText;
7 import android.widget.RadioButton;
8 import android.widget.Toast;
9
10 public class MainActivity extends Activity{
11     private EditText text;
12
13     @Override
14     public void onCreate(Bundle savedInstanceState){
15         super.onCreate(savedInstanceState);
16         setContentView(R.layout.activity_main);
17         text = (EditText) findViewById(R.id.inputValue);
18     }
19
20     public void onClick(View view){
21         switch(view.getId()){
22             case R.id.button1:
23                 RadioButton celsiusButton = (RadioButton) findViewById(R.id.radio0);
24                 RadioButton fahrenheitButton = (RadioButton) findViewById(R.id.radio1);
25                 if(text.getText().length() == 0){
26                     Toast.makeText(this, "Please enter a valid number", Toast.LENGTH_LONG).show();
27                     return;
28                 }
29                 float inputValue = Float.parseFloat(text.getText().toString());
30                 if(celsiusButton.isChecked()){
31                     text.setText(String.valueOf(ConverterUtil.convertFahrenheitToCelsius(inputValue)));
32                     celsiusButton.setChecked(false);
33                     fahrenheitButton.setChecked(true);
34                 }
35                 else{
36                     text.setText(String.valueOf(ConverterUtil.convertCelsiusToFahrenheit(inputValue)));
37                     fahrenheitButton.setChecked(false);
38                     celsiusButton.setChecked(true);
39                 }
40                 break;
41             }
42         }
43     }
44 }
45 }
```

이후 MainActivity 또한 예시를 따라 수정해 주었습니다.





# 결과



이후 Emulator를 이용해  
실행시켜 작동을 확인해  
주었습니다.