

# 스마트폰 프로그래밍

## Assign #4

(제목 : RadioButtonTest, ChoiceTest)

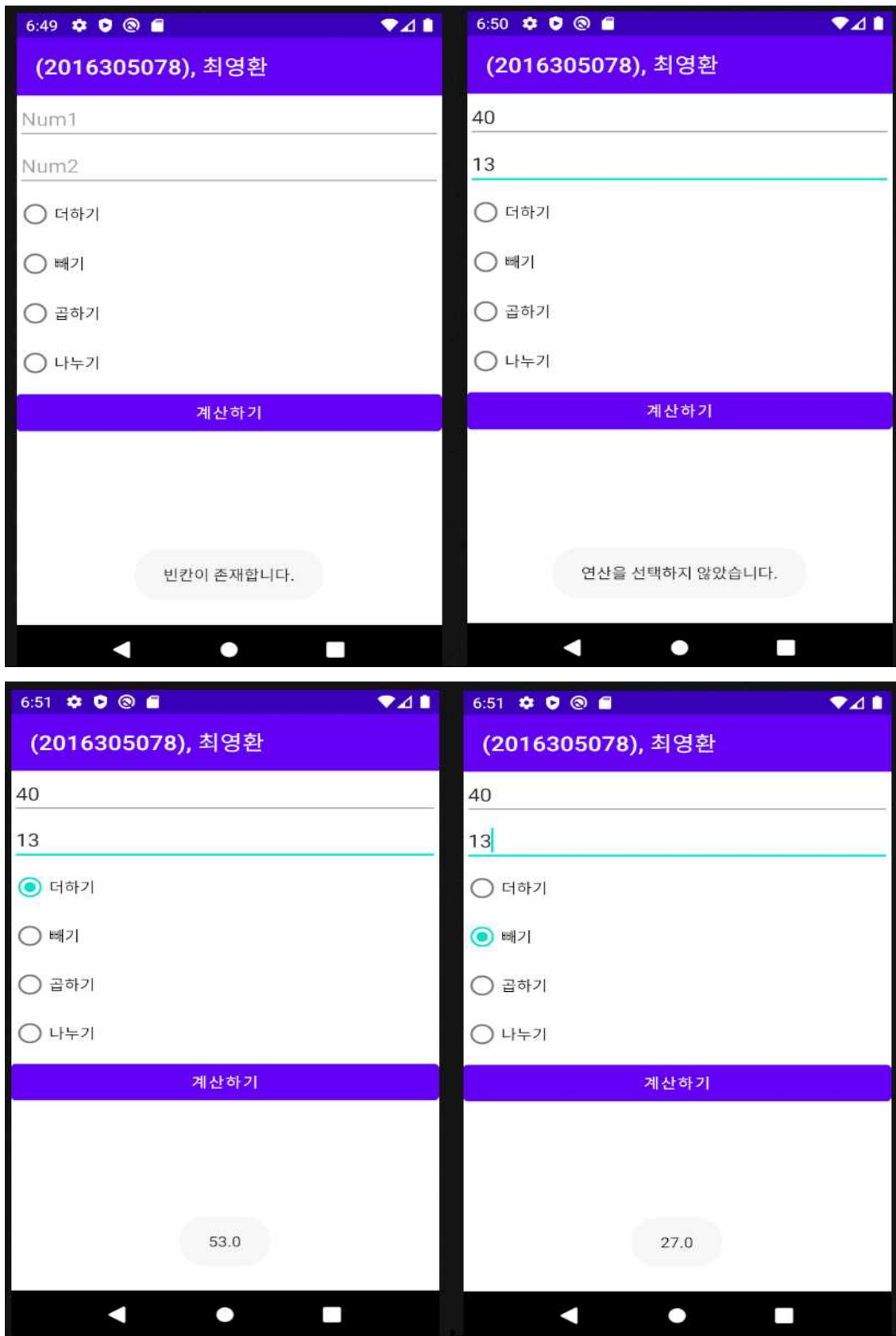
학번 : 2016305078

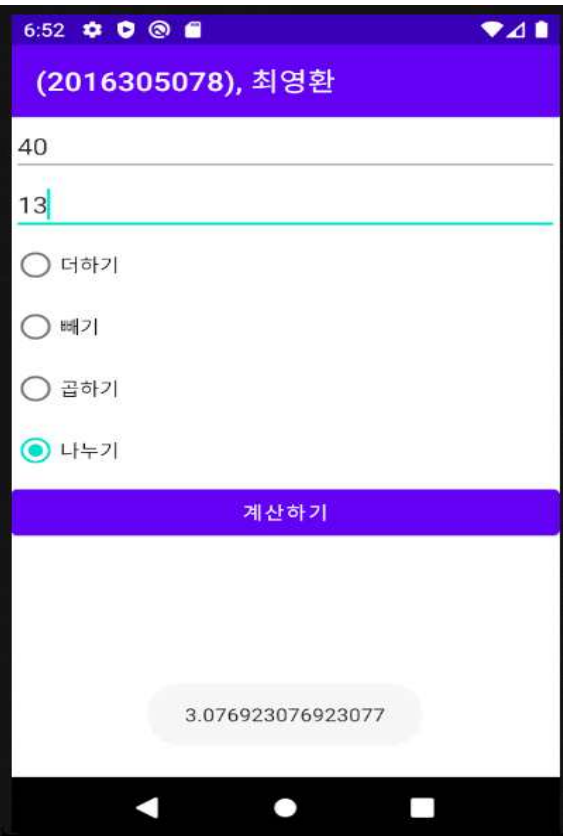
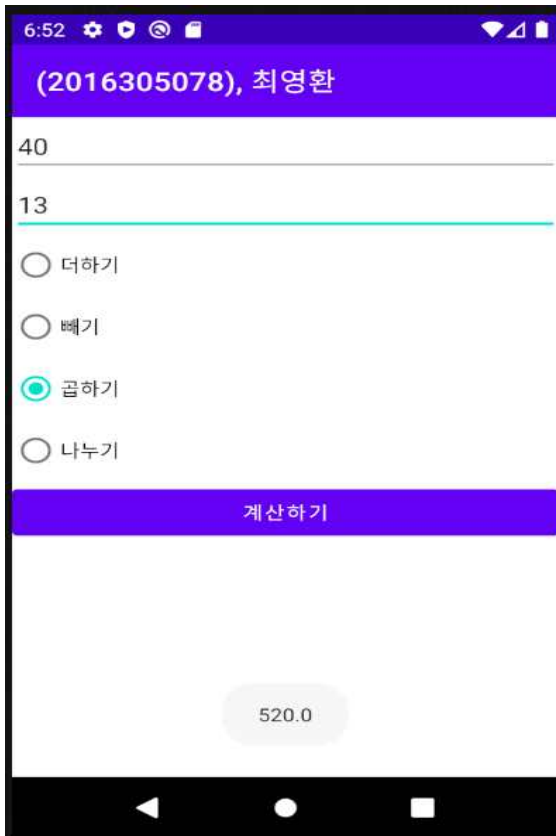
성명 : 최 영 환

제출일자 : 2021.9.29

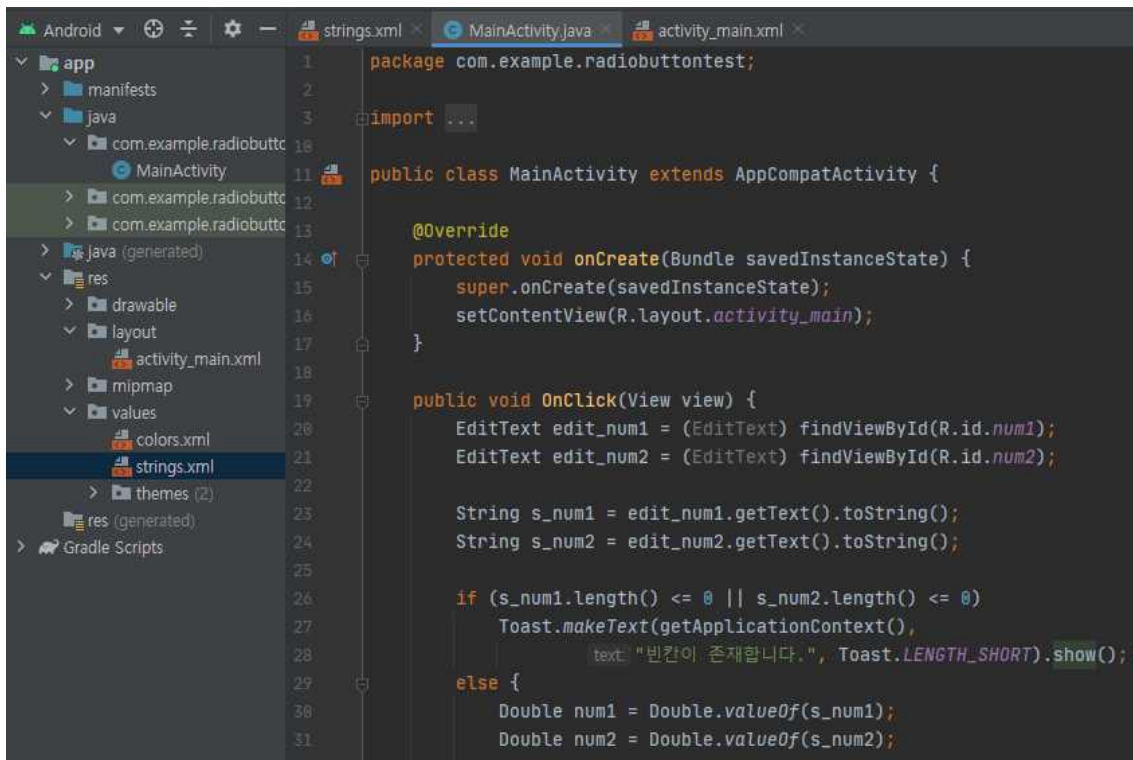
본인은 타인이나 다른 매체를 도용하지 않았음을 확인합니다 <본인사인>

<실행화면>

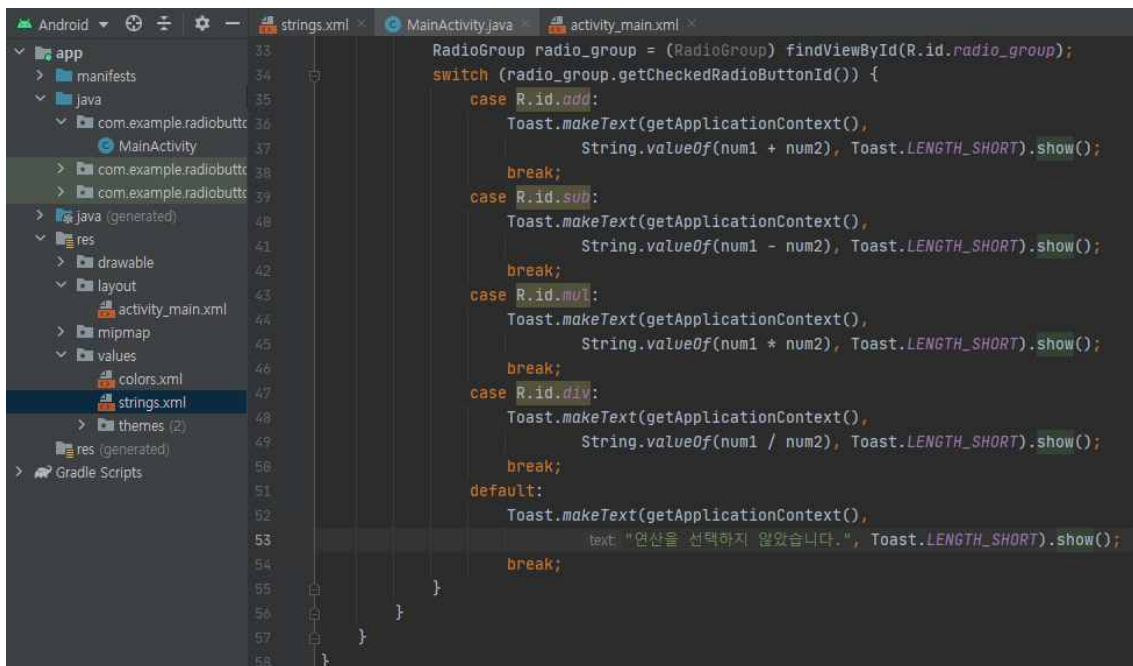




## <MainActivity.java>



```
1 package com.example.radiobuttontest;
2
3 import ...
4
5 public class MainActivity extends AppCompatActivity {
6
7     @Override
8     protected void onCreate(Bundle savedInstanceState) {
9         super.onCreate(savedInstanceState);
10        setContentView(R.layout.activity_main);
11    }
12
13    public void onClick(View view) {
14        EditText edit_num1 = (EditText) findViewById(R.id.num1);
15        EditText edit_num2 = (EditText) findViewById(R.id.num2);
16
17        String s_num1 = edit_num1.getText().toString();
18        String s_num2 = edit_num2.getText().toString();
19
20        if (s_num1.length() <= 0 || s_num2.length() <= 0)
21            Toast.makeText(getApplicationContext(),
22                text: "빈칸이 존재합니다.", Toast.LENGTH_SHORT).show();
23        else {
24            Double num1 = Double.valueOf(s_num1);
25            Double num2 = Double.valueOf(s_num2);
26
27            // ... (rest of the code is in the second screenshot)
28        }
29    }
30 }
```



```
33 RadioGroup radio_group = (RadioGroup) findViewById(R.id.radio_group);
34 switch (radio_group.getCheckedRadioButtonId()) {
35     case R.id.add:
36         Toast.makeText(getApplicationContext(),
37             String.valueOf(num1 + num2), Toast.LENGTH_SHORT).show();
38         break;
39     case R.id.sub:
40         Toast.makeText(getApplicationContext(),
41             String.valueOf(num1 - num2), Toast.LENGTH_SHORT).show();
42         break;
43     case R.id.mul:
44         Toast.makeText(getApplicationContext(),
45             String.valueOf(num1 * num2), Toast.LENGTH_SHORT).show();
46         break;
47     case R.id.div:
48         Toast.makeText(getApplicationContext(),
49             String.valueOf(num1 / num2), Toast.LENGTH_SHORT).show();
50         break;
51     default:
52         Toast.makeText(getApplicationContext(),
53             text: "연산을 선택하지 않았습니다.", Toast.LENGTH_SHORT).show();
54         break;
55 }
56 }
57 }
58 }
```

```
package com.example.radiobuttontest;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
```

```

import android.widget.RadioGroup;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void OnClick(View view) {
        EditText edit_num1 = (EditText) findViewById(R.id.num1);
        EditText edit_num2 = (EditText) findViewById(R.id.num2);
        String s_num1 = edit_num1.getText().toString();
        String s_num2 = edit_num2.getText().toString();
        if (s_num1.length() <=0 || s_num2.length() <=0)
            Toast.makeText(getApplicationContext(),
                "빈칸이 존재합니다.", Toast.LENGTH_SHORT).show();
        else {
            Double num1 = Double.valueOf(s_num1);
            Double num2 = Double.valueOf(s_num2);
            RadioGroup radio_group = (RadioGroup) findViewById(R.id.radio_group);
            switch (radio_group.getCheckedRadioButtonId()) {
                case R.id.add:
                    Toast.makeText(getApplicationContext(),
                        String.valueOf(num1 + num2), Toast.LENGTH_SHORT).show();
                    break;
                case R.id.sub:
                    Toast.makeText(getApplicationContext(),
                        String.valueOf(num1 - num2), Toast.LENGTH_SHORT).show();
                    break;
                case R.id.mul:
                    Toast.makeText(getApplicationContext(),
                        String.valueOf(num1 * num2), Toast.LENGTH_SHORT).show();
                    break;
                case R.id.div:
                    Toast.makeText(getApplicationContext(),
                        String.valueOf(num1 / num2), Toast.LENGTH_SHORT).show();
                    break;
                default:
                    Toast.makeText(getApplicationContext(),
                        "연산을 선택하지 않았습니다.", Toast.LENGTH_SHORT).show();
                    break;
            }
        }
    }
}

```

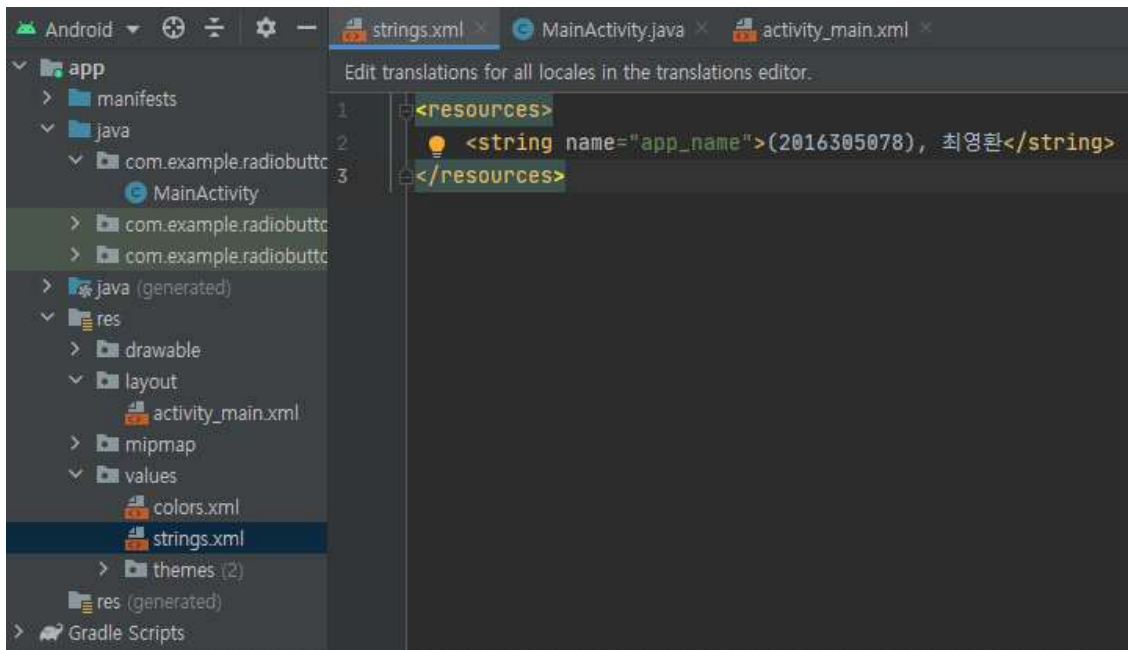
}

}

}

}

<string.xml>

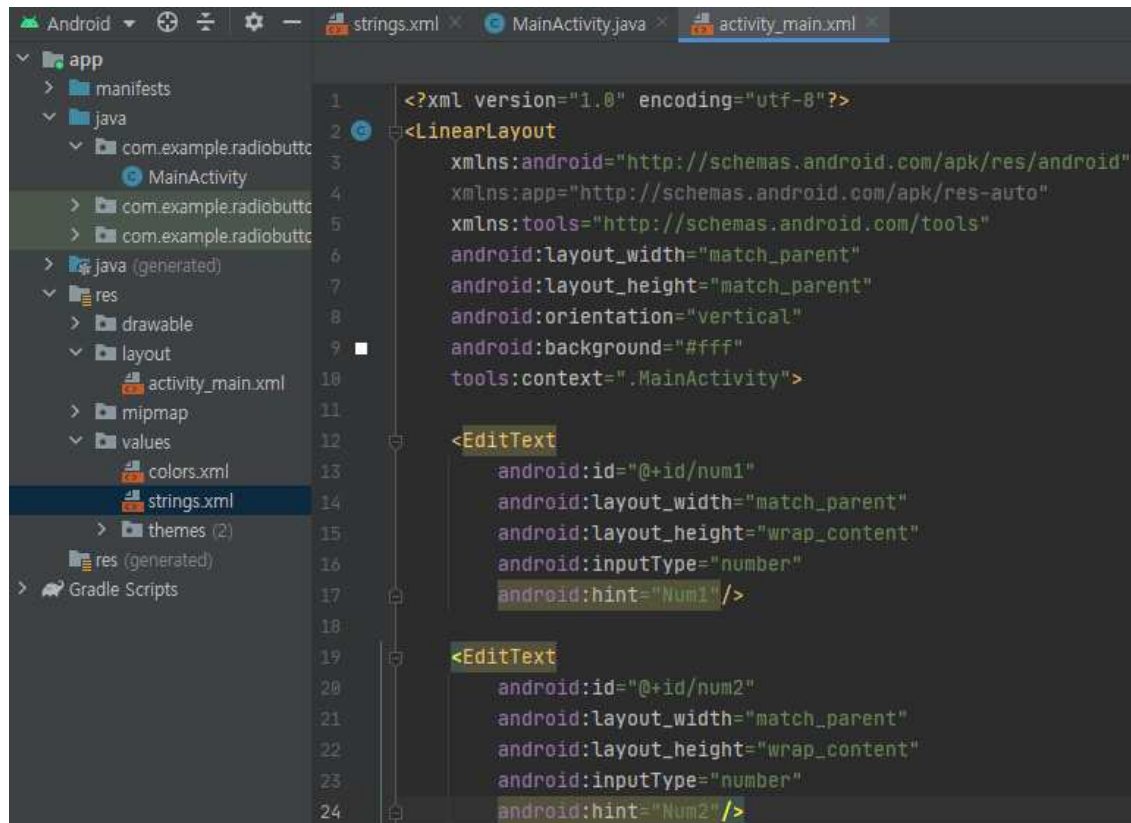


<resources>

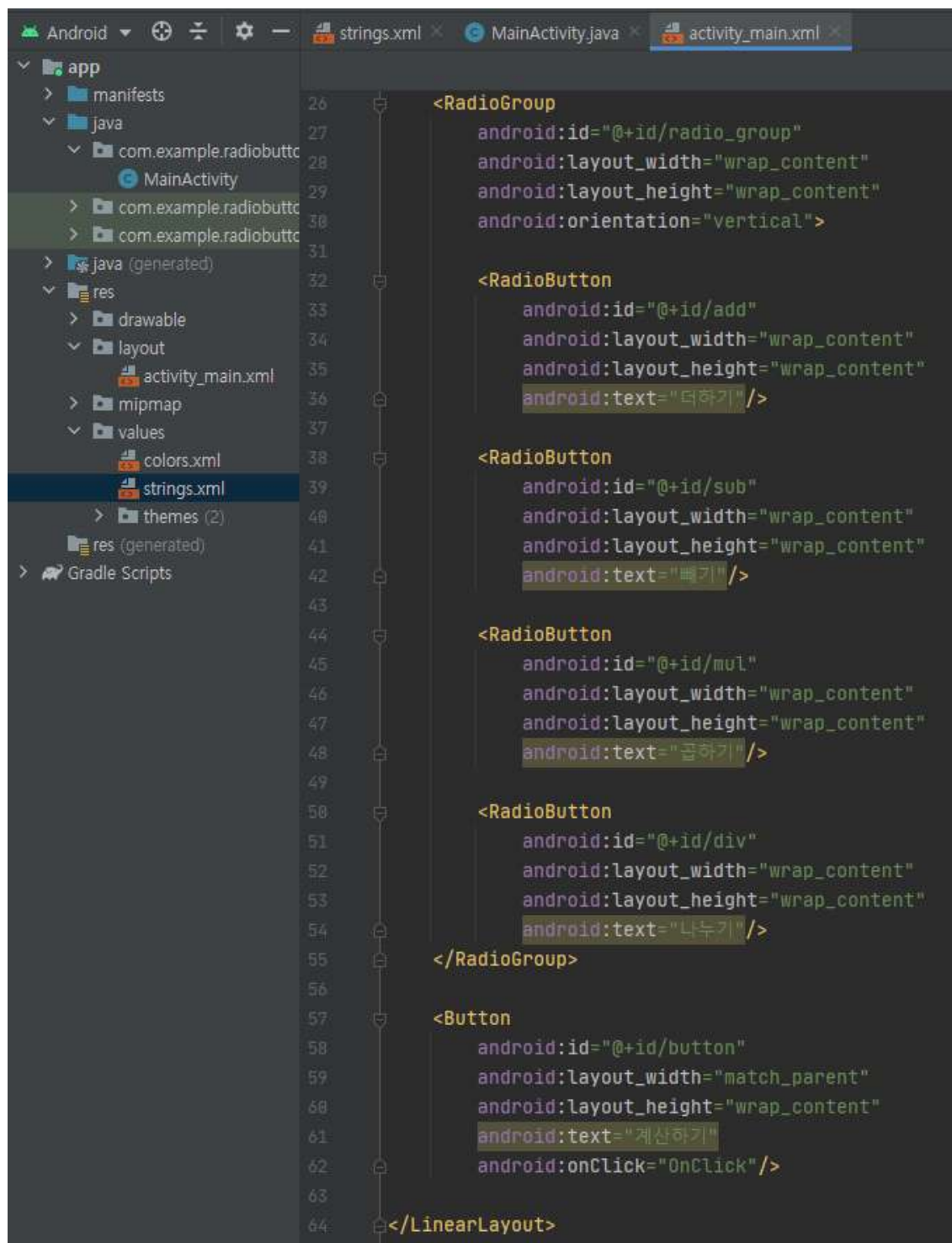
    <string name="app\_name">(2016305078), 최영환</string>

</resources>

## <activity\_main.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"
```

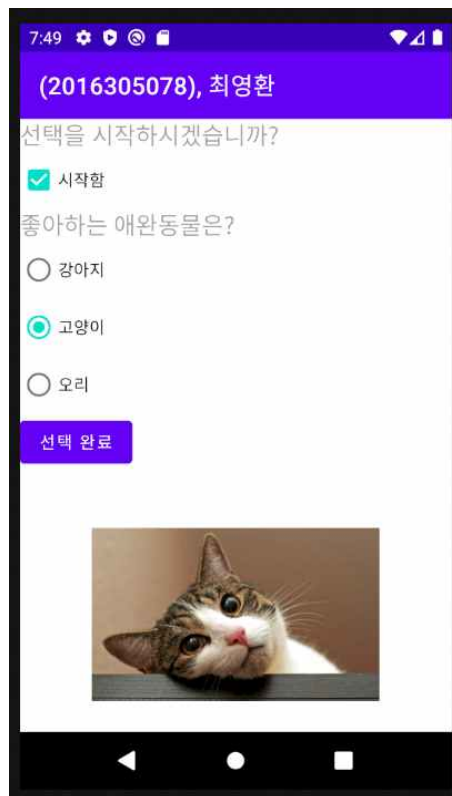
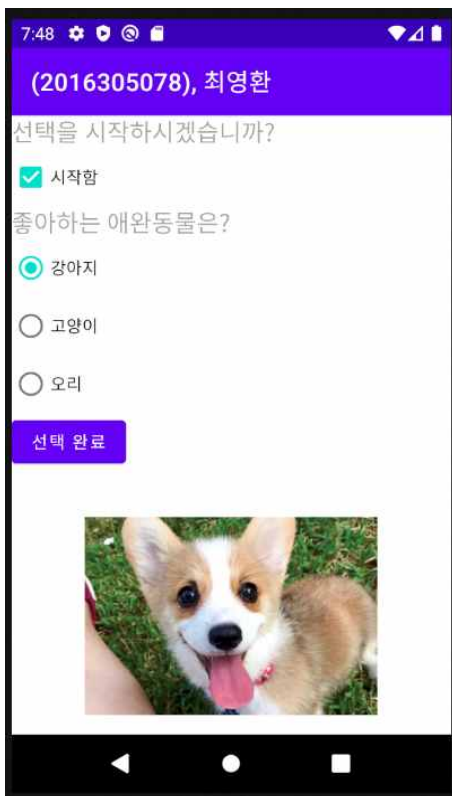
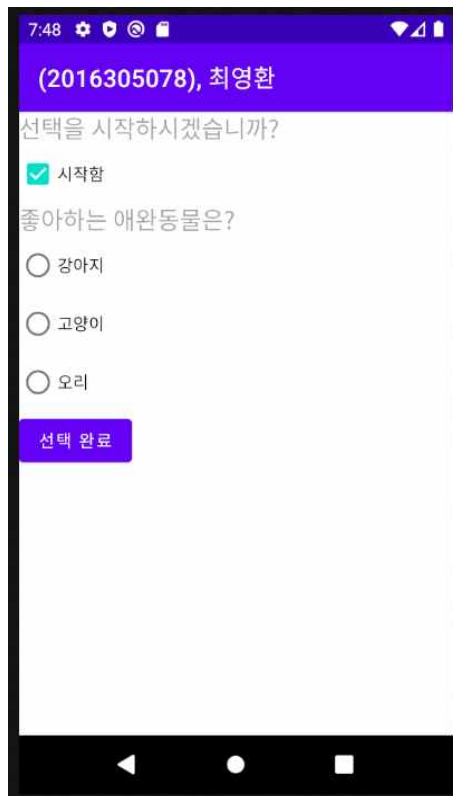
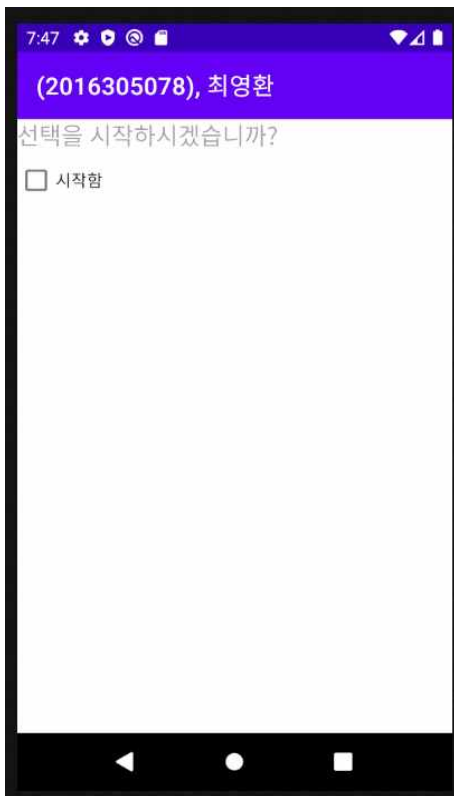
```
xmlns:tools="http://schemas.android.com/tools"
```

```
android:layout_width="match_parent"
```

```
android:layout_height="match_parent"
android:orientation="vertical"
android:background="#fff"
tools:context=".MainActivity">
    <EditText
android:id="@+id/num1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:inputType="number"
android:hint="Num1"/>
    <EditText
android:id="@+id/num2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:inputType="number"
android:hint="Num2"/>
    <RadioGroup
android:id="@+id/radio_group"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:orientation="vertical">
        <RadioButton
android:id="@+id/add"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="더하기"/>
        <RadioButton
android:id="@+id/sub"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="빼기"/>
        <RadioButton
android:id="@+id/mul"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="곱하기"/>
        <RadioButton
android:id="@+id/div"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="나누기"/>
```

```
        </RadioGroup >
        <Button
android:id="@+id/button"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="계산하기"
android:onClick="OnClick"/>
    </LinearLayout >
```

<실행화면>



7:49

(2016305078), 최영환

선택을 시작하시겠습니까?

☒ 시작함

좋아하는 애완동물은?

☐ 강아지

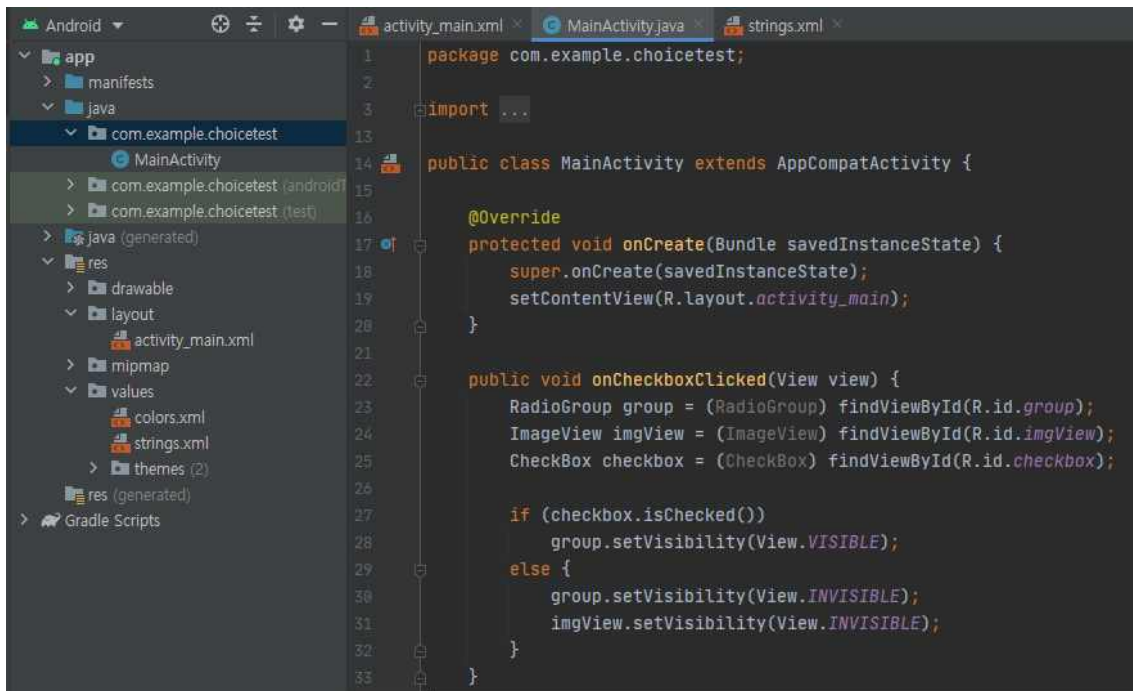
☐ 고양이

☒ 오리

선택 완료

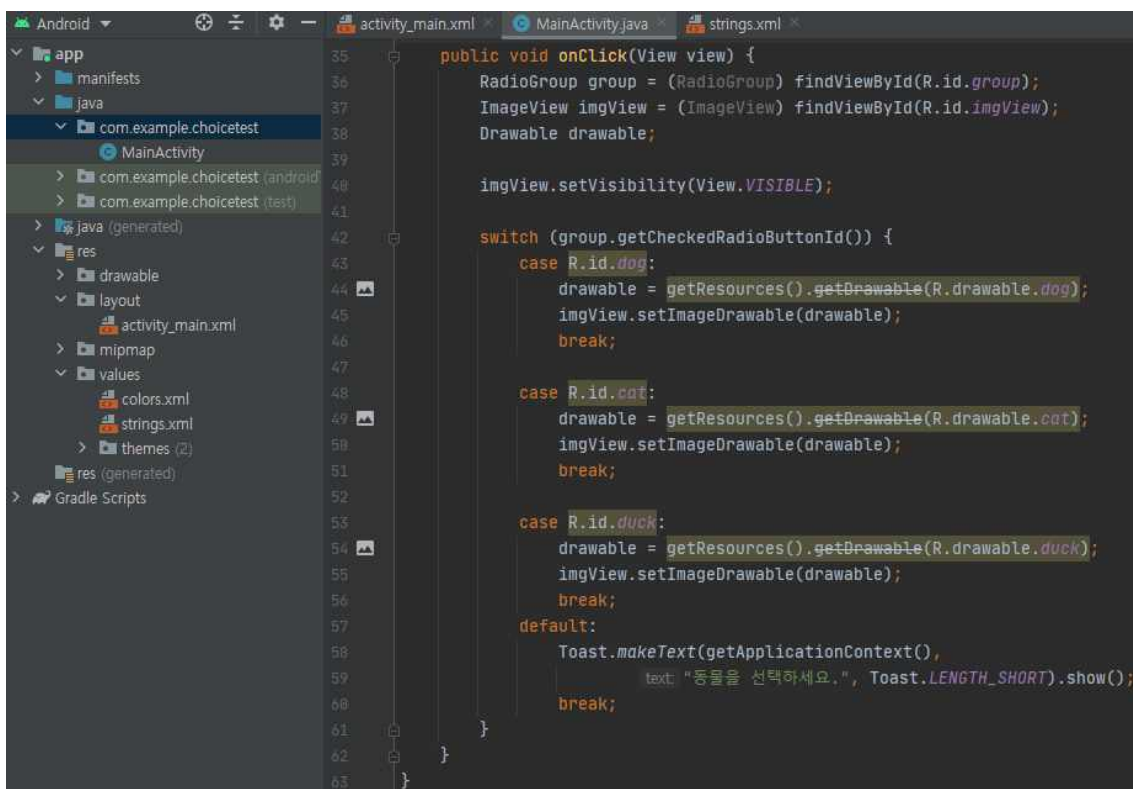


## <MainActivity.java>



This screenshot shows the MainActivity.java file in an IDE. The left sidebar displays the project structure with the MainActivity class selected. The main editor area shows the following code:

```
1 package com.example.choicetest;
2
3 import ...
4
13
14 public class MainActivity extends AppCompatActivity {
15
16
17     @Override
18     protected void onCreate(Bundle savedInstanceState) {
19         super.onCreate(savedInstanceState);
20         setContentView(R.layout.activity_main);
21     }
22
23     public void onCheckboxClicked(View view) {
24         RadioGroup group = (RadioGroup) findViewById(R.id.group);
25         ImageView imgView = (ImageView) findViewById(R.id.imgView);
26         CheckBox checkBox = (CheckBox) findViewById(R.id.checkBox);
27
28         if (checkBox.isChecked())
29             group.setVisibility(View.VISIBLE);
30         else {
31             group.setVisibility(View.INVISIBLE);
32             imgView.setVisibility(View.INVISIBLE);
33         }
34     }
35 }
```



This screenshot shows the continuation of the MainActivity.java file in the IDE. The left sidebar shows the project structure with MainActivity selected. The main editor area shows the following code:

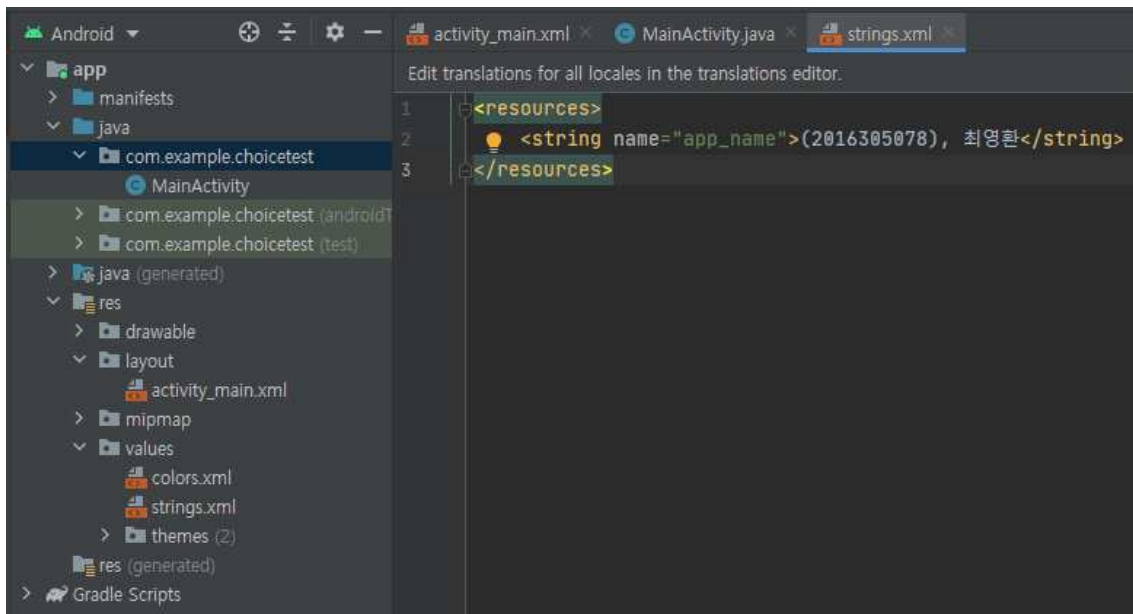
```
35 public void onClick(View view) {
36     RadioGroup group = (RadioGroup) findViewById(R.id.group);
37     ImageView imgView = (ImageView) findViewById(R.id.imgView);
38     Drawable drawable;
39
40     imgView.setVisibility(View.VISIBLE);
41
42     switch (group.getCheckedRadioButtonId()) {
43         case R.id.dog:
44             drawable = getResources().getDrawable(R.drawable.dog);
45             imgView.setImageDrawable(drawable);
46             break;
47
48         case R.id.cat:
49             drawable = getResources().getDrawable(R.drawable.cat);
50             imgView.setImageDrawable(drawable);
51             break;
52
53         case R.id.duck:
54             drawable = getResources().getDrawable(R.drawable.duck);
55             imgView.setImageDrawable(drawable);
56             break;
57         default:
58             Toast.makeText(getApplicationContext(),
59                 text: "동물을 선택하세요.", Toast.LENGTH_SHORT).show();
60             break;
61     }
62 }
63 }
```

```
package com.example.choicetest;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.drawable.Drawable;
import android.os.Bundle;
import android.view.View;
import android.widget.CheckBox;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.RadioGroup;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void onCheckboxClicked(View view) {
        RadioGroup group = (RadioGroup) findViewById(R.id.group);
        ImageView imgView = (ImageView) findViewById(R.id.imgView);
        CheckBox checkbox = (CheckBox) findViewById(R.id.checkbox);
        if (checkbox.isChecked())
            group.setVisibility(View.VISIBLE);
        else {
            group.setVisibility(View.INVISIBLE);
            imgView.setVisibility(View.INVISIBLE);
        }
    }
    public void onClick(View view) {
        RadioGroup group = (RadioGroup) findViewById(R.id.group);
        ImageView imgView = (ImageView) findViewById(R.id.imgView);
        Drawable drawable;
        imgView.setVisibility(View.VISIBLE);
        switch (group.getCheckedRadioButtonId()) {
            case R.id.dog:
                drawable = getResources().getDrawable(R.drawable.dog);
                imgView.setImageDrawable(drawable);
                break;
            case R.id.cat:
                drawable = getResources().getDrawable(R.drawable.cat);
                imgView.setImageDrawable(drawable);
                break;
        }
    }
}
```

```
case R.id.duck:
    drawable = getResources().getDrawable(R.drawable.duck);
    imageView.setImageDrawable(drawable);
    break;
default:
    Toast.makeText(getApplicationContext(),
        "동물을 선택하세요.", Toast.LENGTH_SHORT).show();
    break;
    }
    }
}
```



<string.xml>

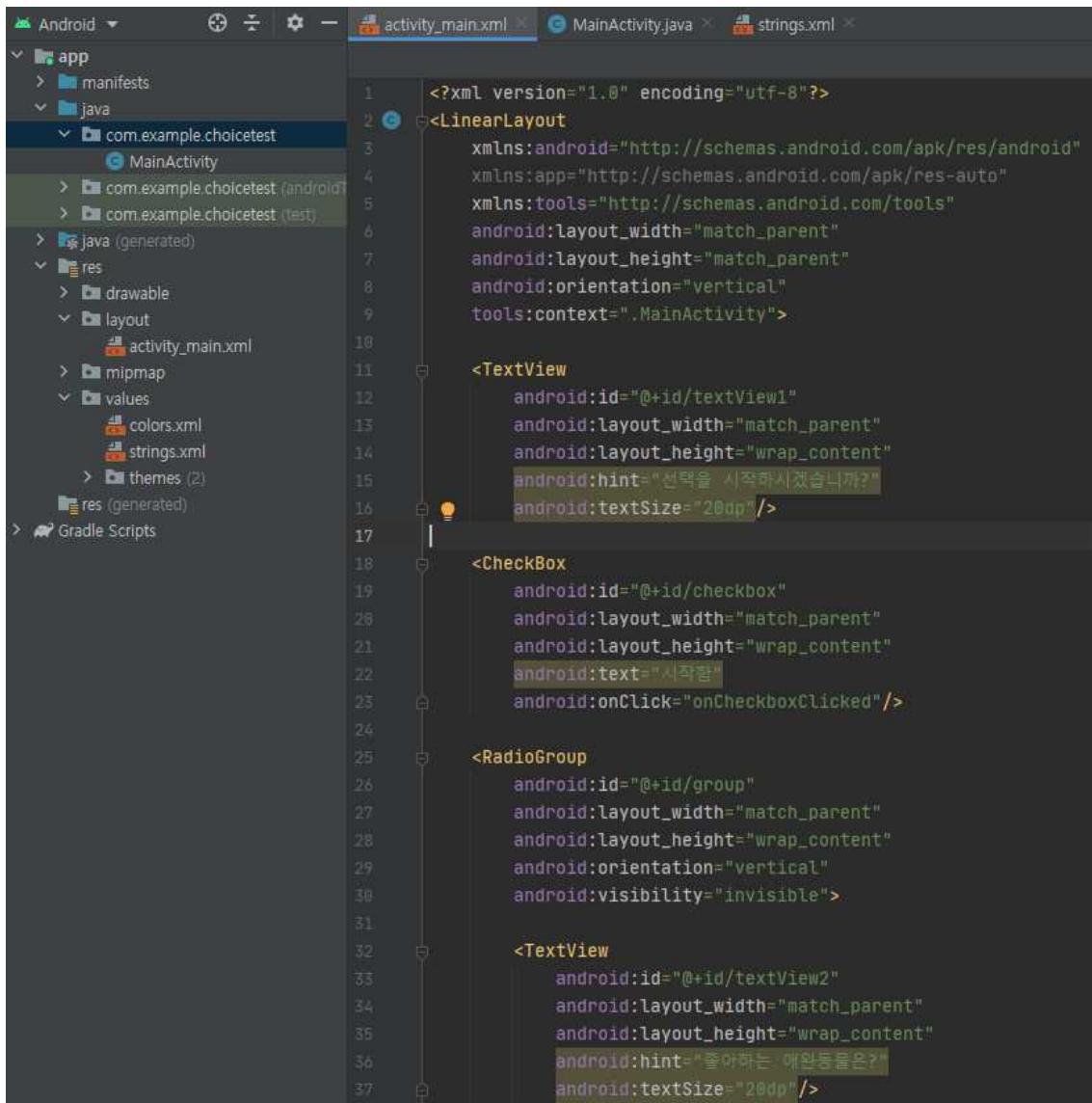


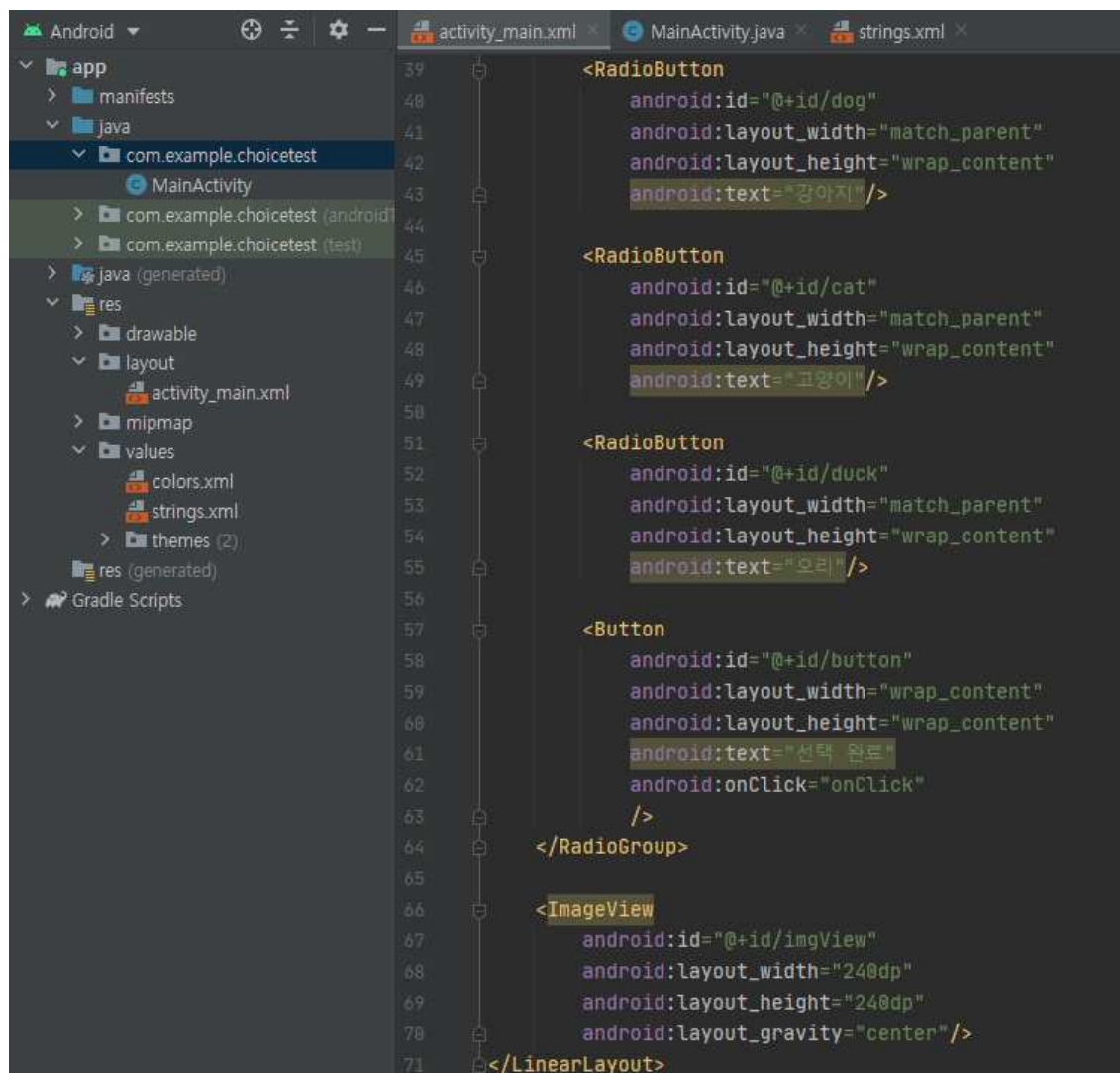
<resources>

    <string name="app\_name">(2016305078), 최영환</string>

</resources>

## <activity\_main.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:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"
tools:context=".MainActivity">
    <TextView
android:id="@+id/textView1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="선택을 시작하시겠습니까?"
android:textSize="20dp"/>
    <CheckBox
android:id="@+id/checkbox"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="시작함"
android:onClick="onCheckboxClicked"/>
    <RadioGroup
android:id="@+id/group"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="vertical"
android:visibility="invisible">
        <TextView
android:id="@+id/textView2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="좋아하는 애완동물은?"
android:textSize="20dp"/>
        <RadioButton
android:id="@+id/dog"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="강아지"/>
        <RadioButton
android:id="@+id/cat"
android:layout_width="match_parent"
```

```
android:layout_height="wrap_content"
android:text="고양이"/>
    <RadioButton
android:id="@+id/duck"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="오리"/>
    <Button
android:id="@+id/button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="선택 완료"
android:onClick="onClick"
/>
</RadioGroup >
<ImageView
android:id="@+id/imgView"
android:layout_width="240dp"
android:layout_height="240dp"
android:layout_gravity="center"/>
</LinearLayout >
```