```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" >

<Button
android:id="@+id/btn1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="이벤트처리1" />
<Button
android:id="@+id/btn2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="이벤트처리2" />
<Button
android:id="@+id/btn3"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="이벤트처리3" />
<Button
android:id="@+id/btn4"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:onClick="eventShow"
android:text="이벤트처리4" />

<ImageButton
android:id="@+id/imageButton"
android:layout_width="match_parent"
android:layout_height="wrap_content"
app:srcCompat="@drawable/burger" />

<CheckBox
android:id="@+id/checkBox"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="글자크기 변경" />

<CheckBox
android:id="@+id/checkBox2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="글자 변경" />

<RadioGroup
android:id="@+id/rg"
android:layout_width="match_parent"
android:layout_height="wrap_content" >

<RadioButton
android:id="@+id/radioButton1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="파랑색" />

<RadioButton
android:id="@+id/radioButton2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="빨강색" />

</RadioGroup>

<TextView
android:id="@+id/result"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textAlignment="center"
android:textSize="30sp"
android:text="KOREA" />
</LinearLayout>
```

```java
package com.ict.ex04_button;

import androidx.appcompat.app.AppCompatActivity;

import android.graphics.Color;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.CompoundButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity implements View.OnClickListener,
CompoundButton.OnCheckedChangeListener{
Button btn1, btn2, btn3, btn4;
CheckBox checkbox1, checkbox2;
TextView result;
/*라디오버튼은 기본적으로 라디오 그룹만 참조하자*/
RadioGroup rg;

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

btn1 = findViewById(R.id.btn1);
btn2 = findViewById(R.id.btn2);
btn3 = findViewById(R.id.btn3);
btn4 = findViewById(R.id.btn4);
checkbox1 = findViewById(R.id.checkBox);
checkbox2 = findViewById(R.id.checkBox2);
result = findViewById(R.id.result);
rg = findViewById(R.id.rg);

/*이벤트처리 방법1: 익명 내부클래스 사용*/
btn1.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
Toast.makeText(MainActivity.this, "클릭하셨네요.(방법1)", Toast.LENGTH_SHORT).show();
}
});
/*이벤트처리 방법2: implements 사용*/
btn2.setOnClickListener(this);

/*이벤트처리 방법3: 내부클래스(별도의 클래스) 사용 */
btn3.setOnClickListener(new myInner());

checkbox1.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
@Override
public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
/*boolean isChecked : 선택하면 true, 선택되지않으면 false*/
if(isChecked){
result.setTextSize(50);
}else{
result.setTextSize(20);
}
}
});

checkbox2.setOnCheckedChangeListener(this);

rg.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
@Override
public void onCheckedChanged(RadioGroup group, int checkedId) {
/*라디오그룹 중 선택된 라디오버튼의 ID를 말한다.*/
switch (checkedId){
case R.id.radioButton1: result.setTextColor(Color.BLUE);break;
case R.id.radioButton2: result.setTextColor(Color.RED);break;
}
}
});

}

//alt + insert => 단축키 : 인터페이스 상속받은거 사용

@Override
public void onClick(View v) {
Toast.makeText(this, "클릭하셨네요.(방법2)", Toast.LENGTH_SHORT).show();
}

/*이벤트처리 방법3: 내부클래스 사용 */
class myInner implements View.OnClickListener{
@Override
public void onClick(View v) {
Toast.makeText(MainActivity.this, "클릭하셨네요.(방법3)", Toast.LENGTH_SHORT).show();
}
}

/*이벤트처리 방법4: XML속성의 onclick 을 지정*/
public void eventShow(View view){
Toast.makeText(MainActivity.this, "클릭하셨네요.(방법4)", Toast.LENGTH_SHORT).show();
}

@Override
public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
if(isChecked){
result.setText("대한민국");
}else{
result.setText("KOREA");
}
}
}
```
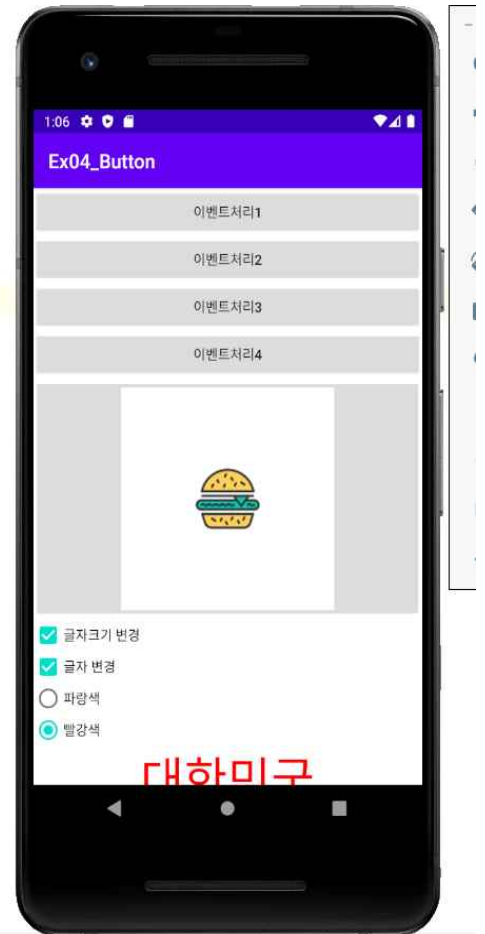
```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical"
tools:context=".Main2Activity">

<ToggleButton
android:id="@+id/toggleButton1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="글자변경 토글버튼" />

<Switch
android:id="@+id/switch1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="글자변경" />

<TextView
android:id="@+id/textView1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textSize="30sp"
android:layout_marginTop="50dp"
android:textAlignment="center"
android:text="KOREA" />
</LinearLayout>
```
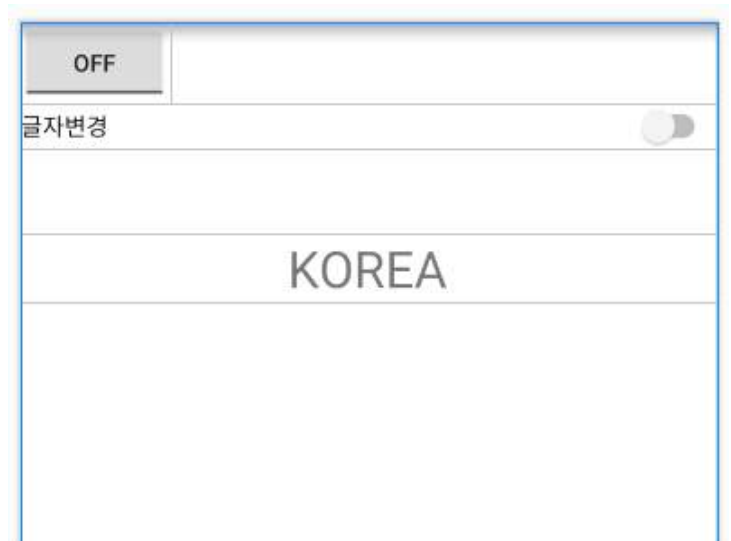


```java
package com.ict.ex04_button;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.CompoundButton;
import android.widget.Switch;
import android.widget.TextView;
import android.widget.ToggleButton;

public class Main2Activity extends AppCompatActivity {
ToggleButton toggleButton1;
Switch switch1;
TextView textView1;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main2);

toggleButton1 = findViewById(R.id.toggleButton1);
switch1 = findViewById(R.id.switch1);
textView1 = findViewById(R.id.textView1);

/*토글버튼은 체크박스와 이벤트처리 같다*/
toggleButton1.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
@Override
public void onCheckedChanged(CompoundButton buttonView, boolean
isChecked) {
if(isChecked){
textView1.setText("서울");
}else{
textView1.setText("SEOUL");
}
}
});
/*스위치는 체크박스와 이벤트처리 같다*/
switch1.setOnCheckedChangeListener(new
CompoundButton.OnCheckedChangeListener() {
@Override
public void onCheckedChanged(CompoundButton buttonView, boolean
isChecked) {
if(isChecked){
textView1.setText("대한민국");
}else{
textView1.setText("KOREA");
}
}
});

}
}
```