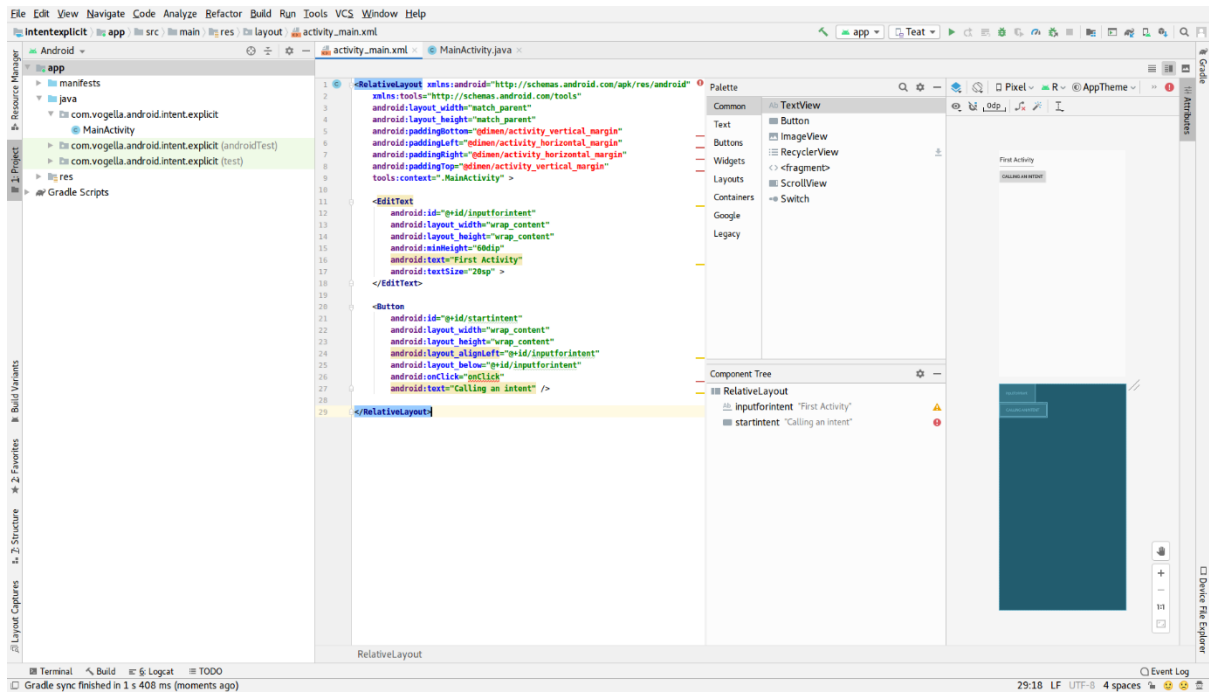


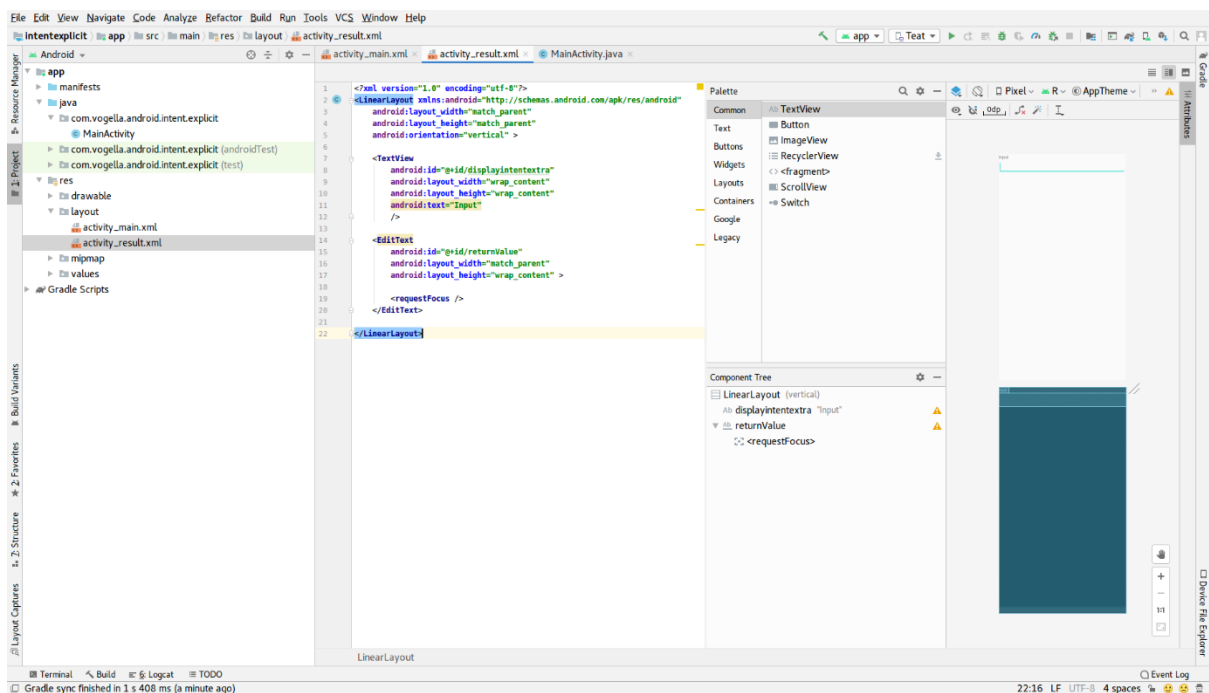
# Embedded System Practice Lab 10

2016311821 한승하

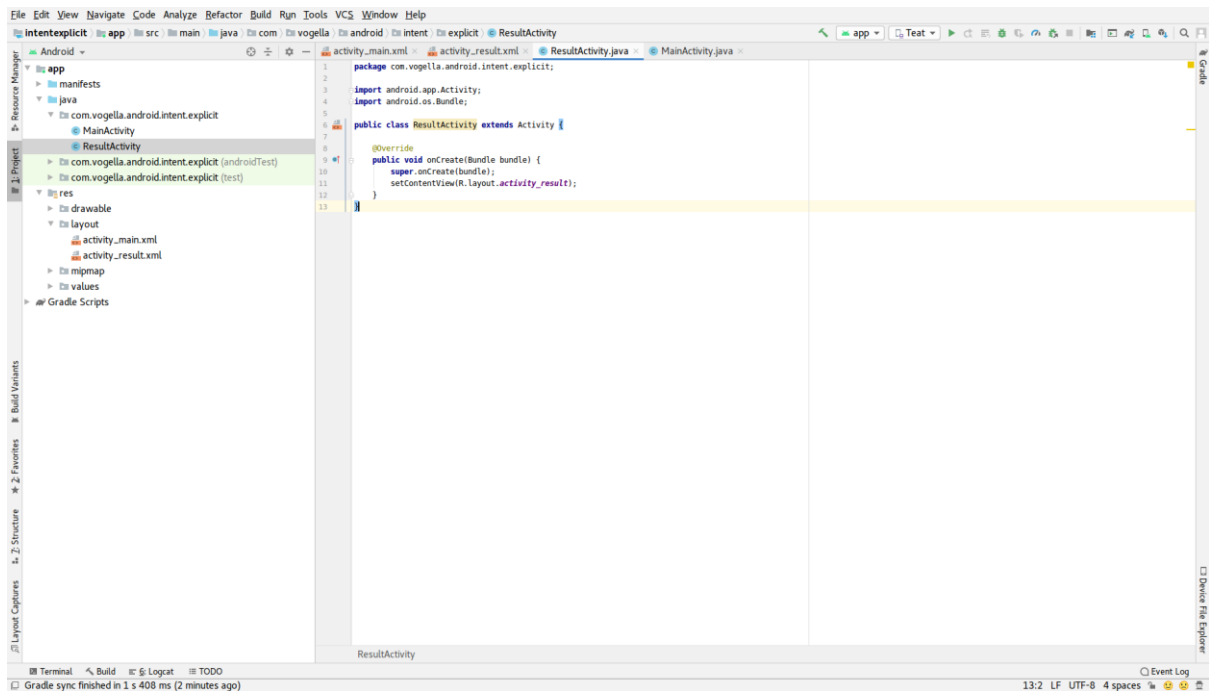
## <Exercise 1>



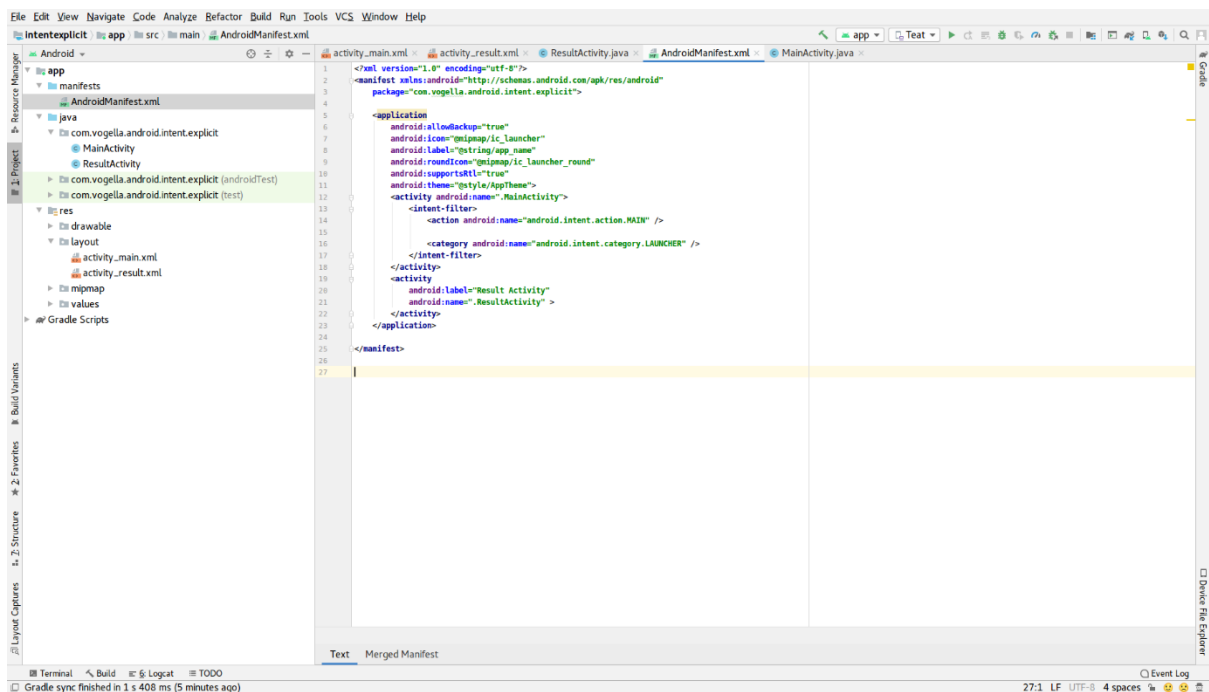
Exercise1 page 설명에 따라 새로운 Project를 만든 후, Layout을 수정하였습니다.



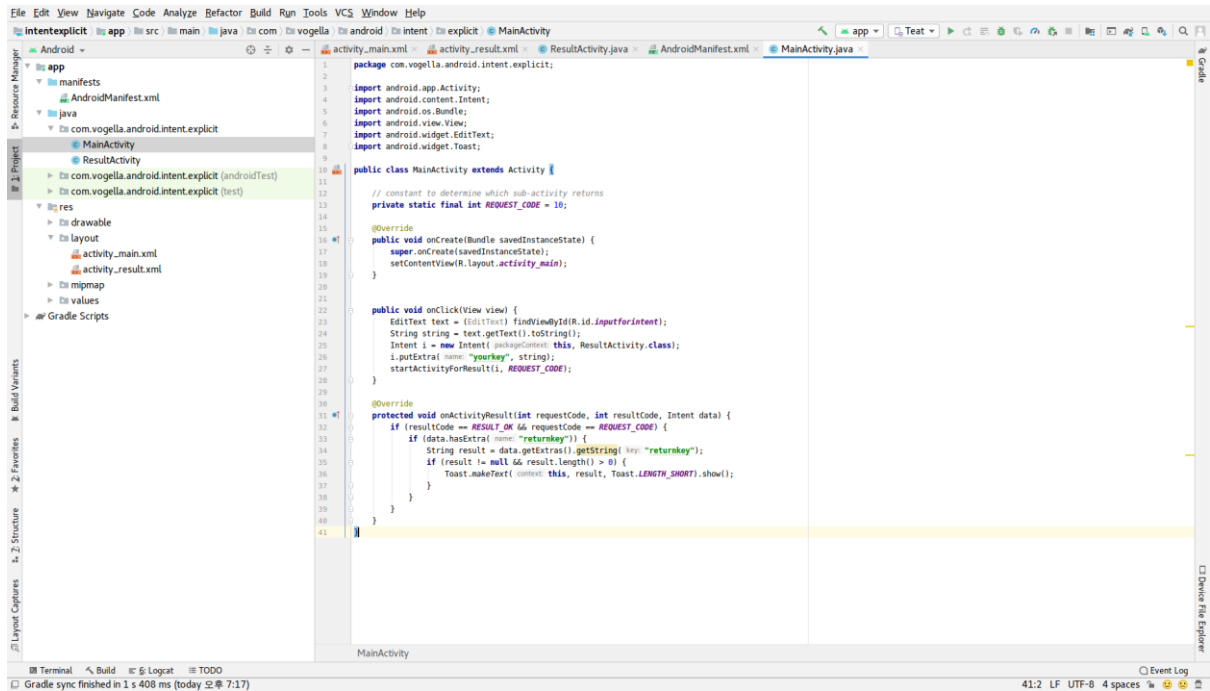
Result가 호출될 새로운 layout activity\_result.xml을 추가해 주었습니다.



ResultActivity class를 선언해 주었습니다.



이후 Manifest.xml파일을 수정해 주었습니다.



The screenshot shows the Android Studio IDE with the MainActivity.java file open. The code defines MainActivity as a subclass of Activity. It includes imports for Activity, Intent, Bundle, View, EditText, and Toast. A constant REQUEST\_CODE is set to 10. The onCreate method calls super.onCreate, sets the layout to activity\_main, and calls setContentView. The onClick method finds an EditText by id, gets its text, creates an Intent with the package context, MainActivity class, and an extra named 'yourkey', then starts the ResultActivity with the request code. The onActivityResult method checks for the request code, gets the result string, and shows a toast message if it's not null.

```
package com.vogella.android.intent.explicit;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

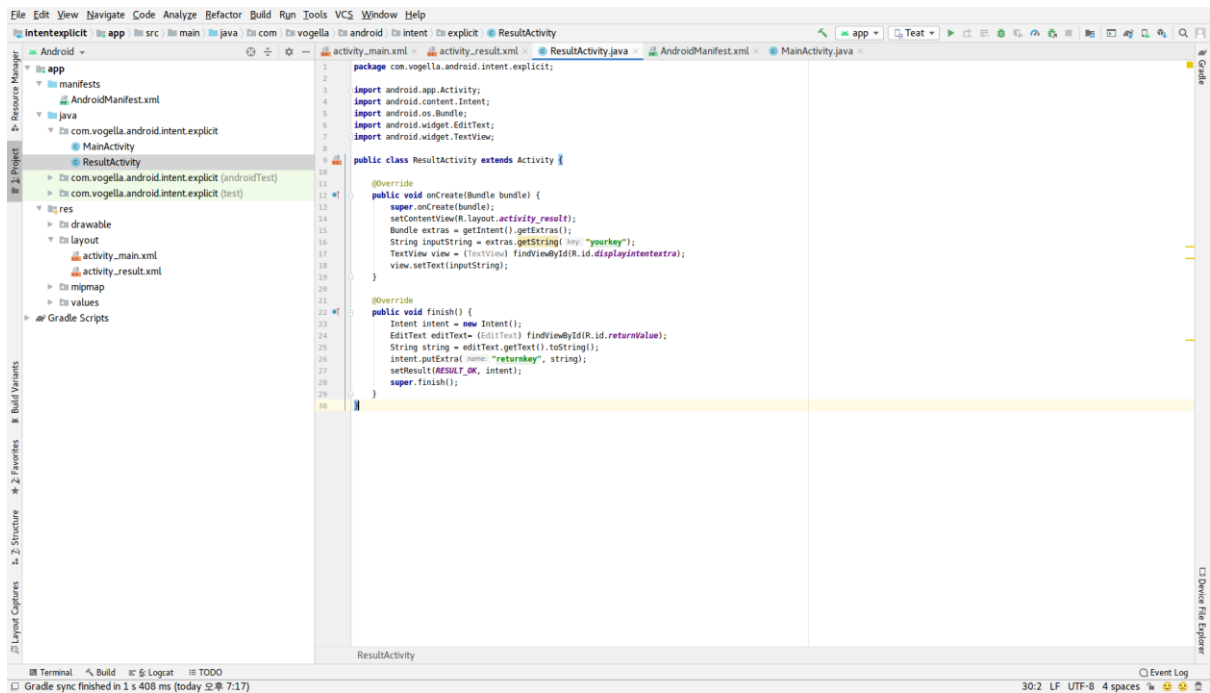
public class MainActivity extends Activity {

    // constant to determine which sub-activity returns
    private static final int REQUEST_CODE = 10;

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

    public void onClick(View view) {
        EditText text = findViewById(R.id.inputforintent);
        String string = text.getText().toString();
        Intent i = new Intent(this, ResultActivity.class);
        i.putExtra("yourkey", string);
        startActivityForResult(i, REQUEST_CODE);
    }

    @Override
    protected void onActivityResult(int requestCode, int resultCode, Intent data) {
        if (resultCode == RESULT_OK && requestCode == REQUEST_CODE) {
            if (data.hasExtra("returnkey")) {
                String result = data.getStringExtra("returnkey");
                if (result != null && result.length() > 0) {
                    Toast.makeText(this, result, Toast.LENGTH_SHORT).show();
                }
            }
        }
    }
}
```



The screenshot shows the Android Studio IDE with the ResultActivity.java file open. The code defines ResultActivity as a subclass of Activity. It includes imports for Activity, Intent, Bundle, and TextView. The onCreate method calls super.onCreate, sets the layout to activity\_result, and calls setContentView. It gets the input string from an extra, finds a TextView by id, and sets its text. The finish method creates an Intent, gets the edit text, creates an Intent with the package context, MainActivity class, and an extra named 'returnkey', then sets the result and calls super.finish.

```
package com.vogella.android.intent.explicit;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.widget.TextView;

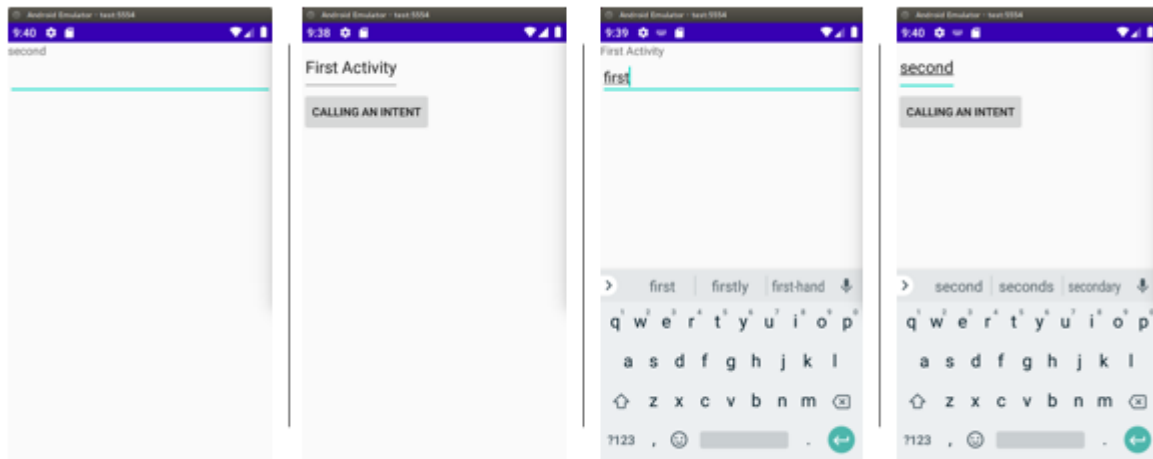
public class ResultActivity extends Activity {

    @Override
    public void onCreate(Bundle bundle) {
        super.onCreate(bundle);
        setContentView(R.layout.activity_result);
        Bundle extras = getIntent().getExtras();
        String inputString = extras.getString("yourkey");
        TextView view = findViewById(R.id.displayintentextra);
        view.setText(inputString);
    }

    @Override
    public void finish() {
        Intent intent = new Intent();
        EditText editText = findViewById(R.id.returnvalue);
        String string = editText.getText().toString();
        Intent.putExtra("returnkey", string);
        setResult(RESULT_OK, intent);
        super.finish();
    }
}
```

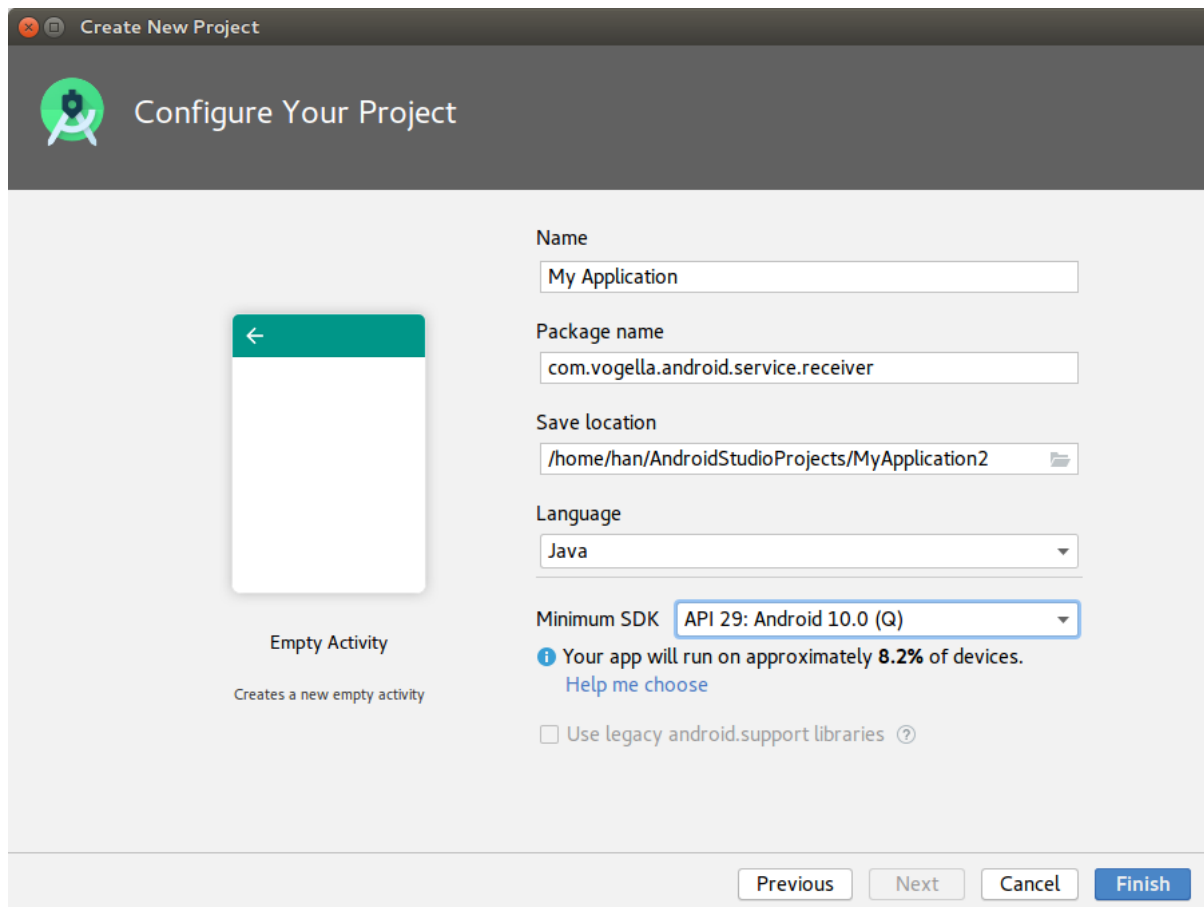
이후 홈페이지 설명에 따라 Main, Result class들을 수정해 주었습니다.

차례대로 진행하며 코드를 이해하려 따라가 봤습니다. JAVA와 Android에 쓰이는 Library들에 대한 지식이 적어 코드를 이해가 종종 막히는 부분이 많았습니다.



위는 Exercise1의 결과 창입니다.

## <Exercise 2>



Exercise 2를 진행할 새로운 project를 선언해 주었습니다.

**New Java Class**

Name:

Kind: Class

Superclass:

Interface(s):

Package:

Visibility: ☒ Public ☐ Package Private

Modifiers: ☒ None ☐ Abstract ☐ Final

☐ Show Select Overrides Dialog

OK Cancel Help

```

package com.vogella.android.service.receiver;

import java.io.File;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.net.URL;

import android.app.Activity;
import android.app.IntentService;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.os.Environment;
import android.os.Message;
import android.os.Messenger;
import android.util.Log;

public class DownloadService extends IntentService {

    private int result = Activity.RESULT_CANCELED;
    public static final String URL = "urlpath";
    public static final String FILENAME = "filename";
    public static final String FILEPATH = "filepath";
    public static final String RESULT = "result";
    public static final String NOTIFICATION = "com.vogella.android.service.receiver";

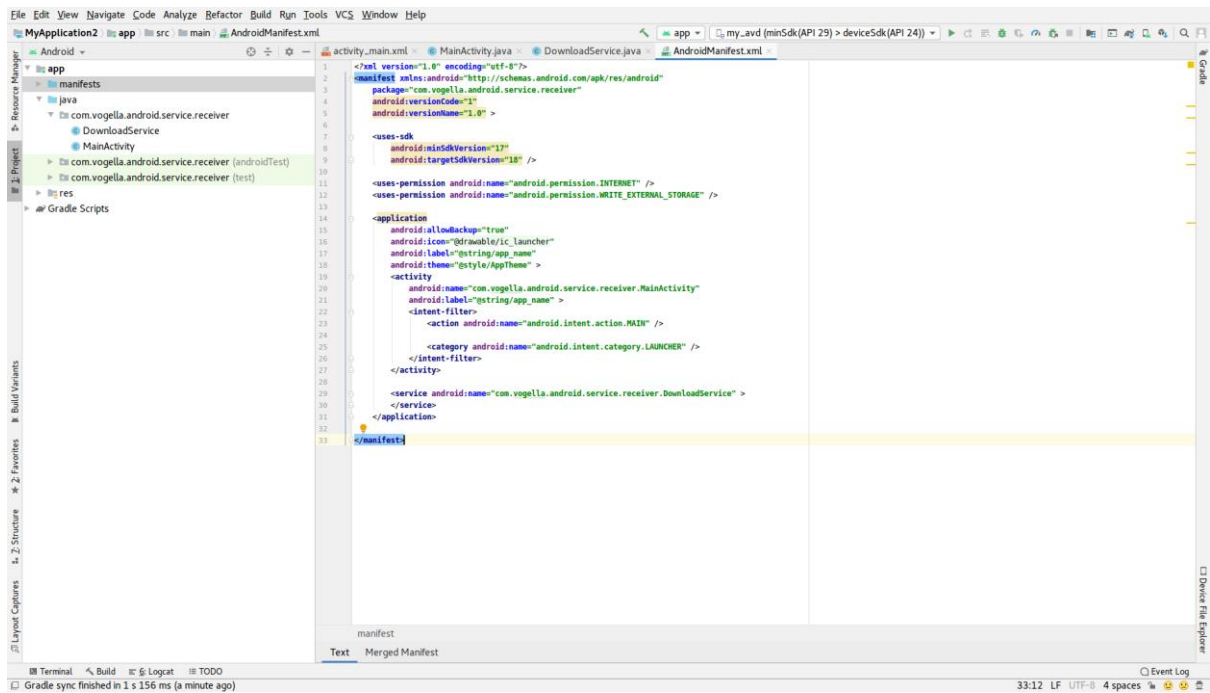
    public DownloadService() {
        super(name, "DownloadService");
    }

    // will be called asynchronously by Android
    @Override
    protected void onHandleIntent(Intent intent) {
        String urlPath = intent.getStringExtra(URL);
        String filename = intent.getStringExtra(FILENAME);
        File output = new File(Environment.getExternalStorageDirectory(),
            filename);
        if (output.exists()) {
            output.delete();
        }

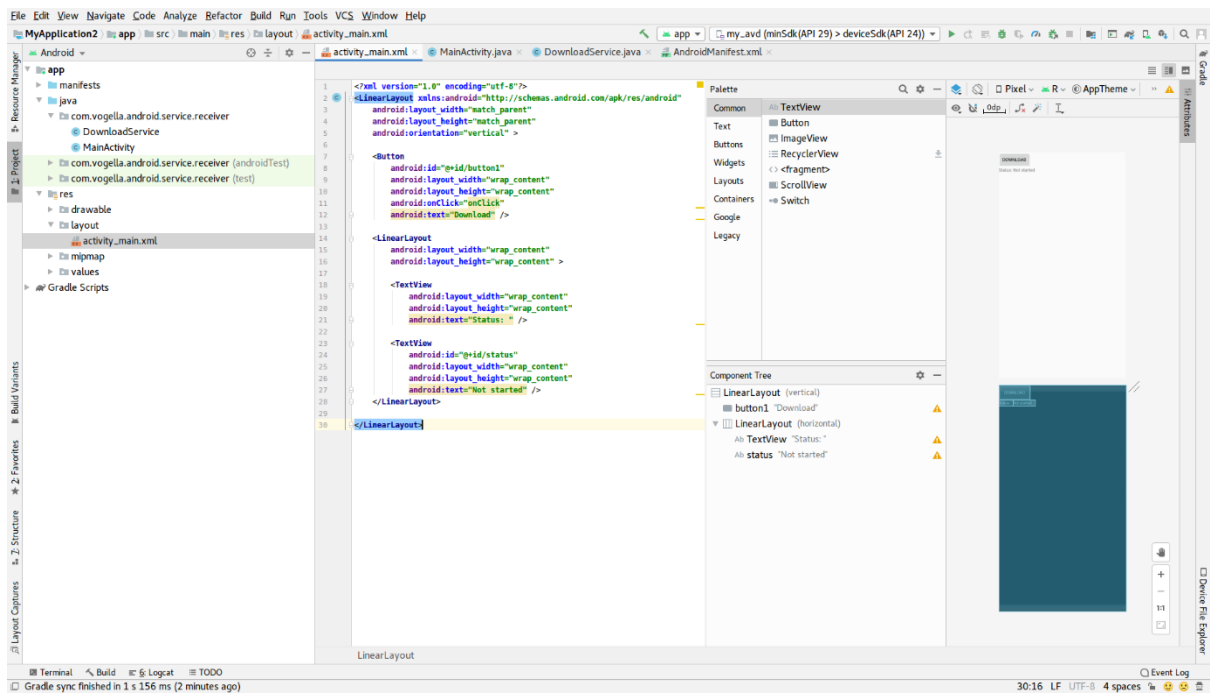
        InputStream stream = null;
        FileOutputStream fos = null;
        try {
            URL url = new URL(urlPath);
            stream = url.openConnection().getInputStream();
            InputStreamReader reader = new InputStreamReader(stream);

```

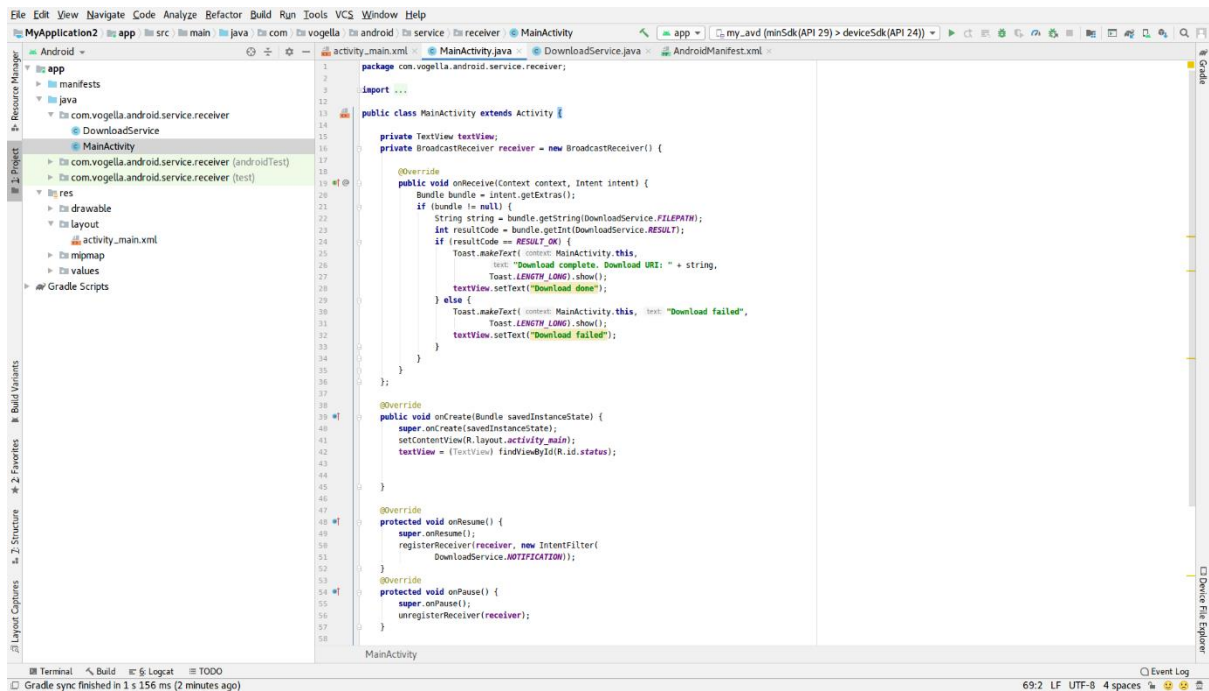
설명에 따라 새로운 Class DownloadService를 만들어 주었습니다.



이후 Manifest 파일을 수정해 주었고



Layout또한 수정해 주었습니다.



이후 Main activity를 수정하여 완성하였지만 Build에서 오류가 생겼습니다.

#### application

```

android:allowBackup="true"
android:icon="@drawable/ic_launcher"
android:label="@string/app_name"
android:theme="@style/AppTheme">
<activity

```

이 부분에서 drawable/ic\_launcher를 인식할 수 없는 문제가 있었습니다.

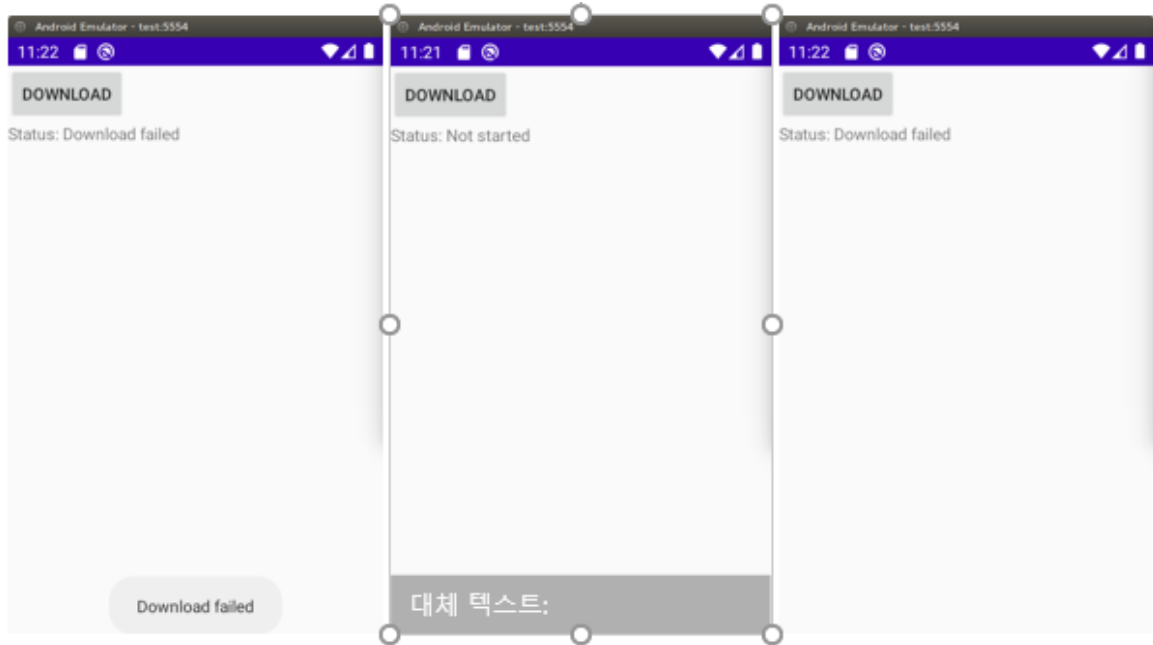
#### application

```

android:allowBackup="true"
android:icon="@mipmap/ic_launcher"
android:label="@string/app_name"
android:theme="@style/AppTheme">
<activity
    android:name="com.vogella.android.se
    android:label="@string/app_name" >
    <intent-filter>
        <action android:name="android.in

```

구글링을 통해 위와 같이 바꾸어 해결해 주었습니다.



위는 Exercise2의 결과 창입니다.