



디렉토리 파일 및 폴더 목록





○ 프로젝트 정보

- ⦿ Application Name: DirectoryRead
- ⦿ Minimum SDK : API 18
- ⦿ Add an activity to Mobile: Blank Activity
- ⦿ Activity Name: MainActivity
- ⦿ Layout Name: activity_main
- ⦿ Title: MainActivity



```
activity_main.xml x
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">

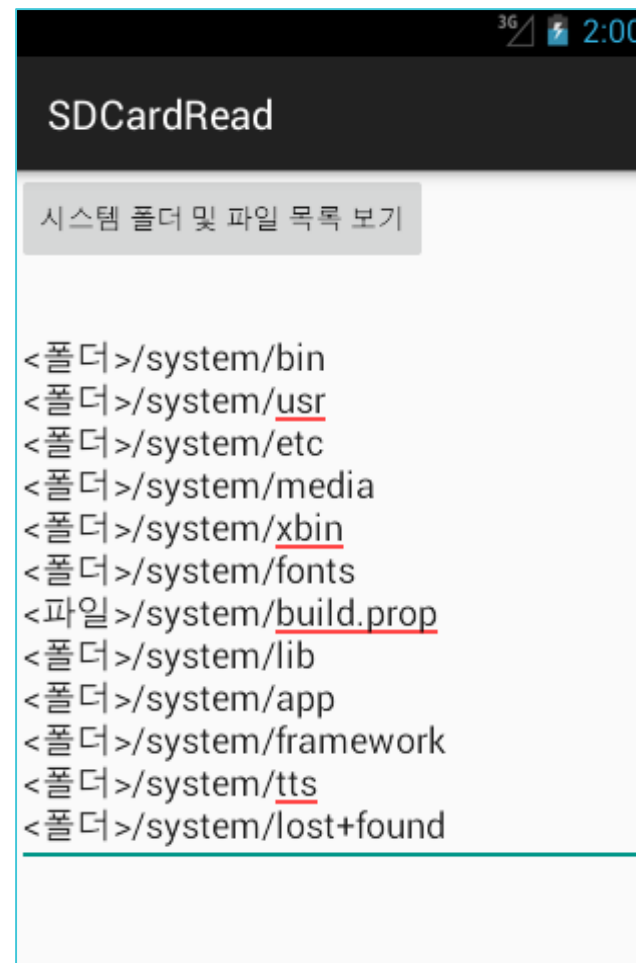
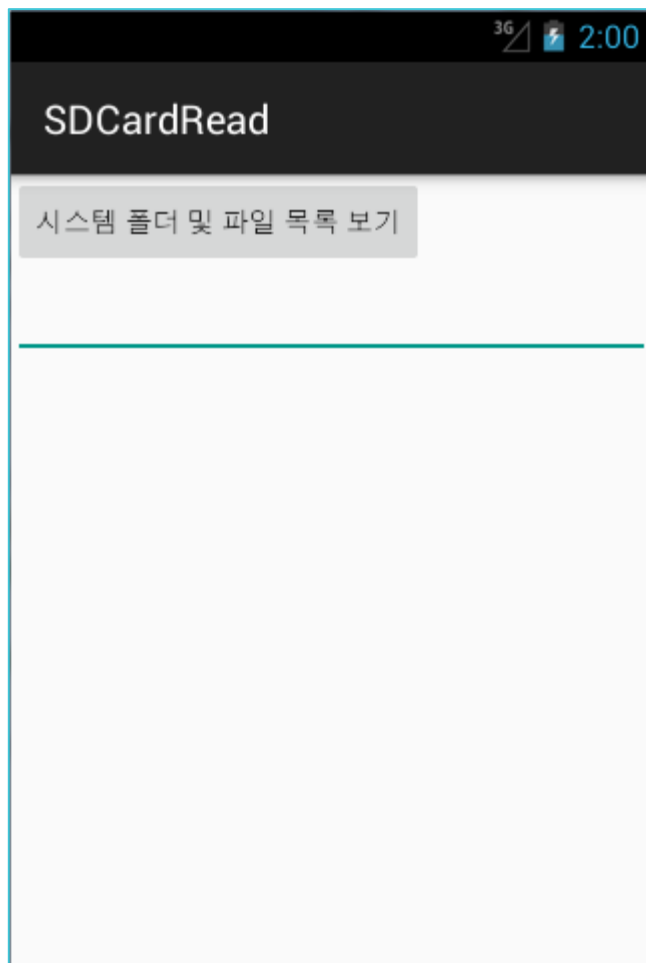
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/btn"
        android:text="시스템 폴더 및 파일 목록 보기" />

    <EditText
        android:id="@+id/edt"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        />
</LinearLayout>
```



```
MainActivity.java x
1  package com.example.administrator.sdcardread;
2
3  + import ...
11
12  <> public class MainActivity extends AppCompatActivity {
13
14      @Override
15  <> protected void onCreate(Bundle savedInstanceState) {
16      super.onCreate(savedInstanceState);
17      setContentView(R.layout.activity_main);
18
19      Button btn;
20      final EditText edt;
21      btn = (Button) findViewById(R.id.btn);
22      edt = (EditText) findViewById(R.id.edt);
23
```

```
MainActivity.java x
23
24 btn.setOnClickListener(new View.OnClickListener() {
25     @Override
26     public void onClick(View v) {
27         String sysDir = Environment.getExternalStorage()
28             .getAbsolutePath();
29         File[] sysFiles = (new File(sysDir).listFiles());
30
31         String strFname;
32         for(int i = 0 ; i < sysFiles.length; i++){
33             if(sysFiles[i].isDirectory() == true)
34                 strFname = "<폴더>" + sysFiles[i].toString();
35             else
36                 strFname = "<파일>" + sysFiles[i].toString();
37
38             edt.setText(edt.getText() + "\n" + strFname);
39         }
40     }
41 });
42 }
43 }
```





○ 프로젝트 정보

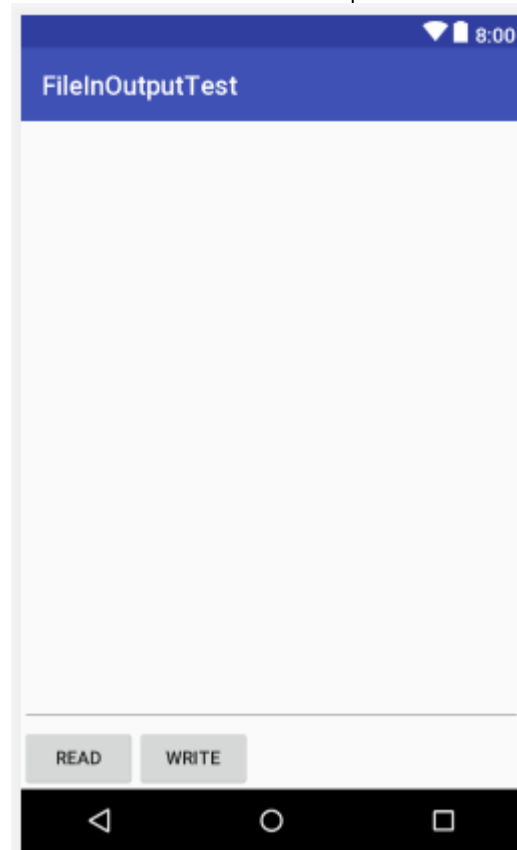
- Application name: FileIOtest
- Minimu SDK : API 18
- Add an activity to Mobile : Empty Activity
- Activity Name: MainActivity
- Layout Name: activity_main



activity_main.xml x

```
2  <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
3      android:layout_width="match_parent"
4      android:layout_height="match_parent"
5      android:orientation="vertical">
6      <LinearLayout
7          android:layout_width="match_parent"
8          android:layout_height="match_parent"
9          android:layout_weight="1">
10         <EditText
11             android:id="@+id/EditText01"
12             android:layout_width="match_parent"
13             android:layout_height="match_parent"
14             android:singleLine="false" />
15     </LinearLayout>
16     <LinearLayout
17         android:id="@+id/LinearLayout03"
18         android:layout_width="wrap_content"
19         android:layout_height="wrap_content"
20         android:orientation="horizontal">
21         <Button
22             android:id="@+id/read"
23             android:layout_width="wrap_content"
24             android:layout_height="wrap_content"
25             android:text="Read" />
26         <Button
27             android:id="@+id/write"
28             android:layout_width="wrap_content"
29             android:layout_height="wrap_content"
30             android:text="Write" />
31     </LinearLayout>
32 </LinearLayout>
```

화면설계



MainActivity.java x

```
1 package com.example.admin.fileiotest;
2
3 import android.os.Bundle;
4 import android.os.Environment;
5 import android.support.v7.app.AppCompatActivity;
6 import android.view.View;
7 import android.widget.Button;
8 import android.widget.EditText;
9 import android.widget.Toast;
10
11 import java.io.BufferedReader;
12 import java.io.File;
13 import java.io.FileReader;
14 import java.io.FileWriter;
15 import java.io.PrintWriter;
16
17 public class MainActivity extends AppCompatActivity {
```

추후 import 확인

MainActivity.java x

```
16
17 public class MainActivity extends AppCompatActivity {
18     EditText edit;
19     File file;
20     File path;
21
22     @Override
23     protected void onCreate(Bundle savedInstanceState) {
24         super.onCreate(savedInstanceState);
25         setContentView(R.layout.activity_main);
26         path = Environment.getExternalStoragePublicDirectory(
27             Environment.DIRECTORY_DOWNLOADS);
28         file = new File(path, "test.txt");
29
30         String state = Environment.getExternalStorageState();
31         if (state.equals(Environment.MEDIA_MOUNTED) == false) {
32             Toast.makeText(getApplicationContext(), "외부 스토리지 실패",
33                 Toast.LENGTH_SHORT).show();
34         }
35         edit = (EditText) findViewById(R.id.EditText01);
36         final Button readButton = (Button) findViewById(R.id.read);
37         Button writeButton = (Button) findViewById(R.id.write);
38     }
}
```

외부 파일 경로

외부 파일 경로에 문제가 없는가?

MainActivity.java x

```
37 Button writeButton = (Button) findViewById(R.id.write);
38
39 readButton.setOnClickListener(new View.OnClickListener() {
40     public void onClick(View v) {
41         try {
42             FileReader in = new FileReader(file);
43             StringBuffer buffer = new StringBuffer();
44             BufferedReader reader = new BufferedReader(in);
45
46             String str = reader.readLine();
47             while (str != null) {
48                 buffer.append(str + "\n");
49                 str = reader.readLine();
50             }
51             edit.setText(new String(buffer));
52             reader.close();
53             Toast.makeText(getApplicationContext(), "Read",
54                 Toast.LENGTH_LONG).show();
55         } catch (Exception e) {
56             e.printStackTrace();
57             Toast.makeText(getApplicationContext(), "Read Field",
58                 Toast.LENGTH_LONG).show();
59         }
60     }
61 });
```

읽어온 파일에 내용이
없을 때까지 반복

MainActivity.java x

```
62
63
64 writeButton.setOnClickListener(new View.OnClickListener() {
65     public void onClick(View v) {
66         try {
67             FileWriter wr = new FileWriter(file, false);
68             PrintWriter writer = new PrintWriter(wr);
69             writer.print(edit.getText().toString());
70             writer.close();
71             Toast.makeText(getApplicationContext(), "Write",
72                 Toast.LENGTH_LONG).show();
73         } catch (Exception e) {
74             e.printStackTrace();
75             Toast.makeText(getApplicationContext(), "Write Field",
76                 Toast.LENGTH_LONG).show();
77         }
78     }
79 });
80 }
81
82
```

에디트 텍스트
의 내용을 파일
에 출력

FileWriter(file, true) ← "true"명 기존 파일에 추가 허용

```
AndroidManifest.xml x
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.admin.fileiotest">

    <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="FileIOtest"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

외부 저장매체 사용 권한

