

2023 안드로이드

Android Application 04

대전대 온디바이스 AI 응용시스템 개발자
하성호

[실습] XML을 이용한 ListView

Project Name

: ListTest

Application Name

: ListTest

Package Name

: com.hn.listtest

Activity Name

: ListTest

String.xml 수정

Android Resources (default)

Resources Elements

        Az

 hello (String)

 app_name (String)

▾  subway (String Array)

 Item

 Item

 Item

 Item

 Item

 Item

 Item

 Item

 Item

Add...

Remove...

Up

Down

String.xml 수정

```
<string-array name="subway">  
<item>장산</item>  
<item>중동</item>  
<item>해운대</item>  
<item>시립미술관</item>  
<item>센텀시티</item>  
<item>민락</item>  
<item>수영</item>  
<item>광안</item>  
<item>금련산</item>  
</string-array>
```

Activity

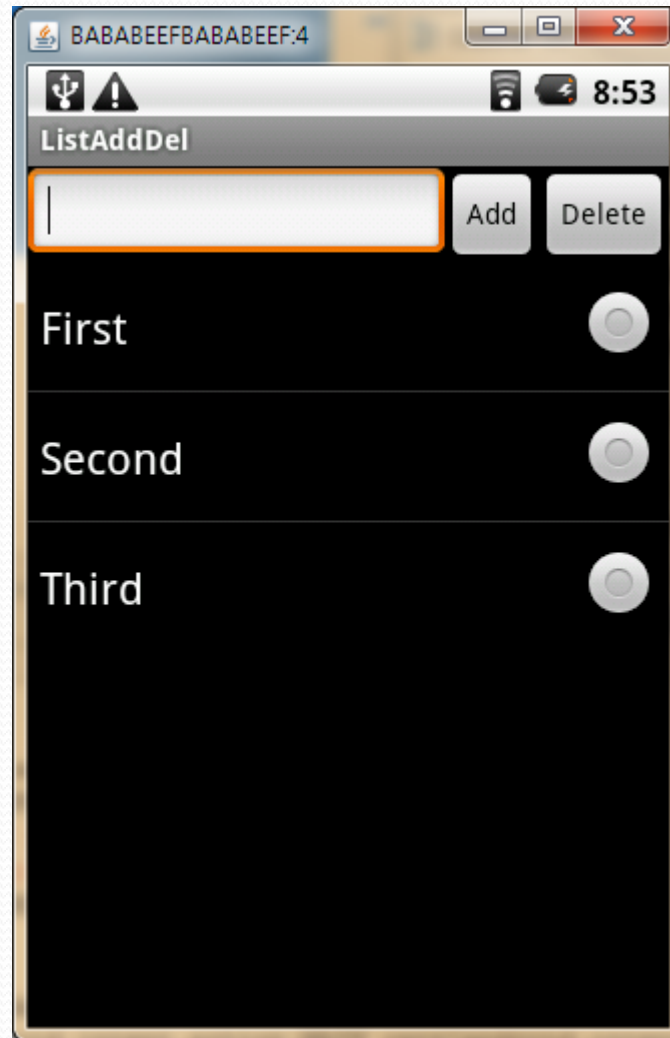
@Override

```
public void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.main);  
    ArrayAdapter<CharSequence> adapter;  
  
    adapter = ArrayAdapter.createFromResource(this,  
        R.array.subway,  
        android.R.layout.simple_list_item_1);  
  
    ListView list =  
        (ListView) this.findViewById(R.id.ListView01);  
    list.setAdapter(adapter);  
}
```

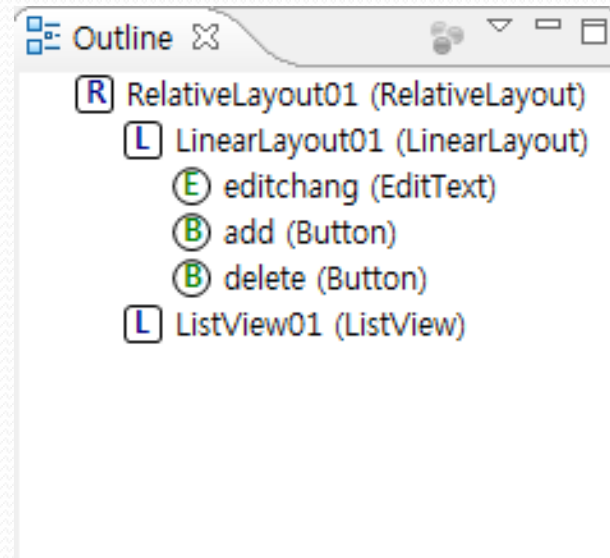
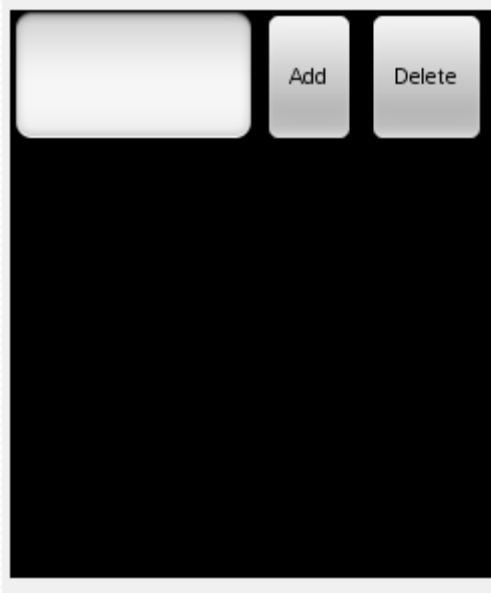
[결과]



ListAddDel



XML 디자인



ListAddDel Activity

```
public class ListAddDel extends Activity {  
    ArrayList<String> Items;  
    ArrayAdapter<String> Adapter;  
    ListView list;  
  
    /** Called when the activity is first created. */  
    @Override  
    public void onCreate(Bundle savedInstanceState)  
    {  
        super.onCreate(savedInstanceState) ;  
        setContentView(R.layout.main) ;  
    }  
}
```

Core 부분(onCreate 안)

```
Items = new ArrayList<String>();
```

```
Items.add("First");
```

```
Items.add("Second");
```

```
Items.add("Third");
```

```
Adapter = new ArrayAdapter<String>(this,  
    android.R.layout.simple_list_item_single_choice,  
    Items );
```

```
listview = (ListView) this.findViewById(R.id.ListView01);  
listview.setAdapter(Adapter);
```

```
listview.setChoiceMode(ListView.CHOICE_MODE_SINGLE);
```

```
listview.setOnItemClickListener(mItemClickListener);
```

mItemClickListener 이벤트 처리 (onCreate밖)

```
private AdapterView.OnItemClickListener mItemClickListener
    = new AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> adv,
                            View view,
                            int position,
                            long id) {

        String msg;
        msg = "Select Item = " + Items.get(position);
        Toast.makeText(ListAddDel.this, msg,
            Toast.LENGTH_SHORT).show();
    }
};
```

buttonSelect 이벤트 처리(onCreate안)

```
this.findViewById(R.id.add)  
    .setOnClickListener(buttonSelect);
```

```
this.findViewById(R.id.delete)  
    .setOnClickListener(buttonSelect);
```

buttonSelect 이벤트(onCreate밖)

```
private View.OnClickListener buttonSelect = new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        switch(v.getId()) {
            case R.id.add:
                EditText edittext = (EditText)findViewById(R.id.editchang);
                String text = edittext.getText().toString();
                if(text.length() != 0){
                    Items.add(text);
                    edittext.setText("");
                    Adapter.notifyDataSetChanged();
                }
                break;
            case R.id.delete:
                int id;
                id = listview.getCheckedItemPosition();
                if(id != ListView.INVALID_POSITION){
                    Items.remove(id);
                    listview
```

Custom ListView

Custom Adapter

[프로젝트 생성]

Project Name

: **MyCustomView**

Application Name

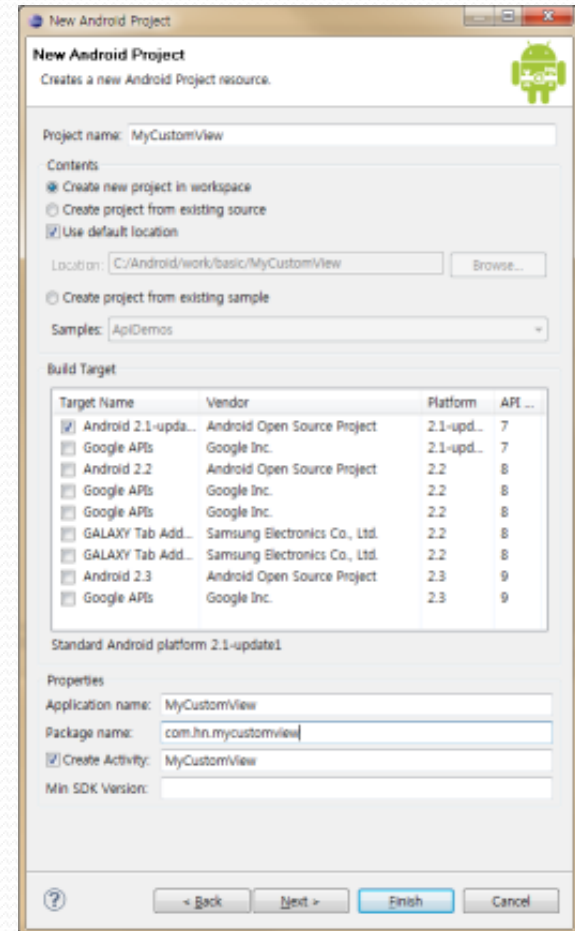
: **MyCustomView**

Package Name

: **com.hn.mycustomview**

Activity Name

: **MyCustomView**



simple_list_item_1의 디자인

```
<?xml version="1.0" encoding="utf-8"?>
<TextView
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:id="@android:id/text1"
    android:textAppearance="?android:attr/textAppearanceLarge"
    android:gravity="center_vertical"
    android:paddingLeft="6dip"
    android:minHeight="?android:attr/listPreferredItemHeight"
>
</TextView>
```


main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<ListView
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/list"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent">
</ListView>
```

custom.xml

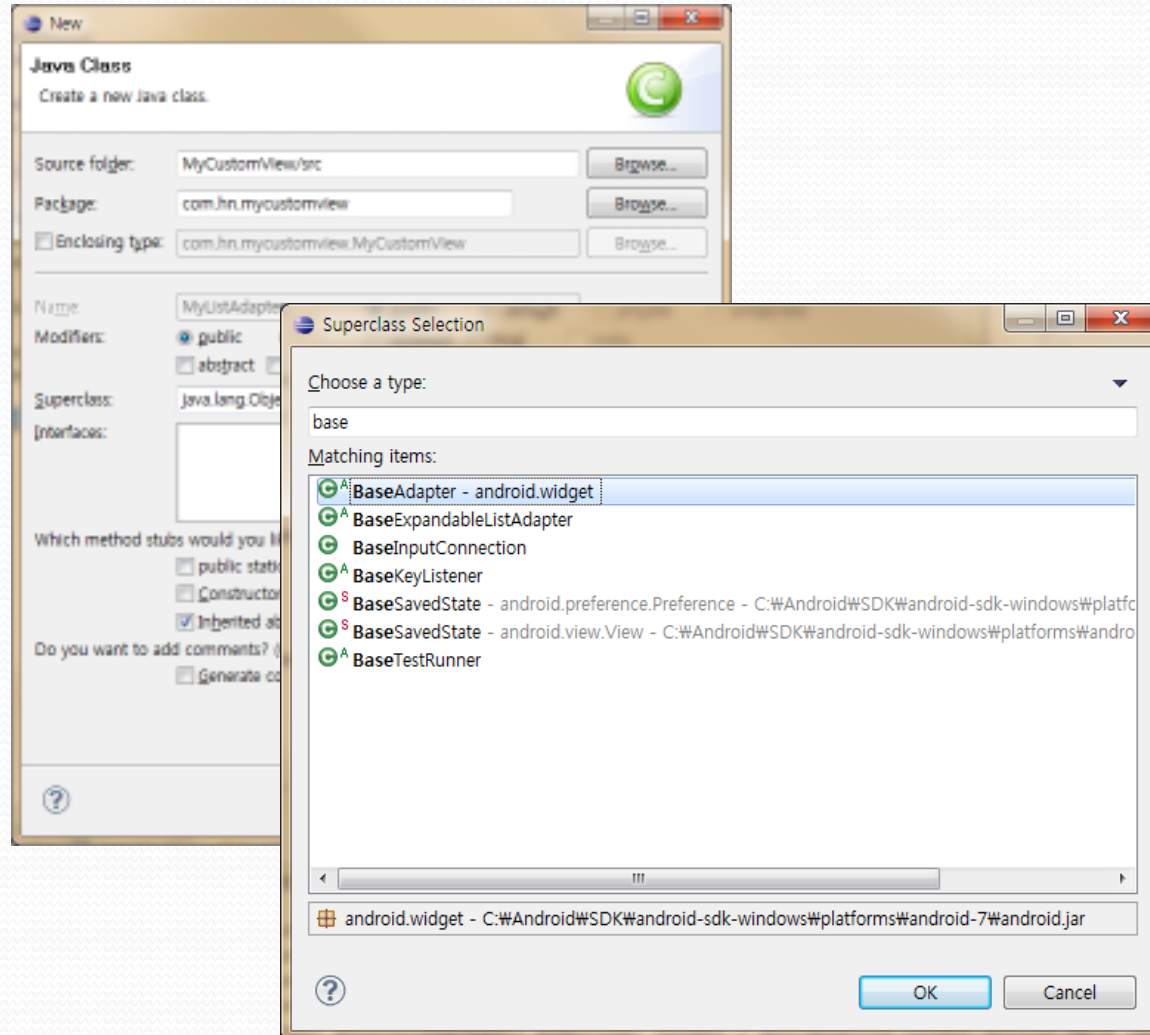
```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    android:layout_width="fill_parent"
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_height="60px" android:id="@+id/list"
    android:padding="5px">
    <ImageView android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/img" android:layout_alignParentLeft="true"
    ></ImageView>
    <TextView android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/text" android:textColor="#00ff00"
        android:textSize="13pt" android:layout_toRightOf="@id/img"
    ></TextView>
    <Button android:layout_width="wrap_content"
        android:layout_alignParentBottom="true"
        android:id="@+id/btn" android:layout_alignParentRight="true"
        android:text="Order" android:layout_height="wrap_content"
    ></Button>
</RelativeLayout>
```

MyData.java

- 사용자 List 클래스 생성

```
public class MyData {  
    int icon;  
    String name;  
  
    MyData(int icon, String name){  
        this.icon = icon;  
        this.name = name;  
    }  
}
```

MyListAdapter



onCreate()

```
public class MyCustomView extends Activity {
    ArrayList<MyData> items;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.main);

        items = new ArrayList<MyData>();
        MyData md;
        md = new MyData(R.drawable.icon, "안드로이드"); items.add(md);
        md = new MyData(R.drawable.icon, "IOS"); items.add(md);
        md = new MyData(R.drawable.icon, "심비안"); items.add(md);
        MyListAdapter myAdapter =
            new MyListAdapter(this, R.layout.custom, items);

        ListView list = (ListView) this.findViewById(R.id.list);
        list.setAdapter(myAdapter);
    }
}
```

사용자 정의 Adapter의 기본아키텍처

```
import android.view.View;
import android.view.ViewGroup;
import android.widget.BaseAdapter;

public class MyListAdapter extends BaseAdapter {
    @Override
    public int getCount() {
        return 0;
    }
    @Override
    public Object getItem(int arg0) {
        return null;
    }
    @Override
    public long getItemId(int arg0) {
        return 0;
    }
    @Override
    public View getView(int arg0, View arg1, ViewGroup arg2) {
        return null;
    }
}
```

ListAdapter 변수선언

- Context `maincon`;
- LayoutInflater `Inflater`;
- ArrayList<MyData> `listdata`;
- **int** `layout`;

ListAdapter 생성자 생성

```
public MyListAdapter(Context maincon,  
    int layout, ArrayList<MyData> listdata) {  
  
    this.maincon = maincon;  
    Inflater = (LayoutInflater)maincon  
        .getSystemService(Context.LAYOUT_INFLATER_SERVICE);  
    this.layout = layout;  
    this.listdata = listdata;  
}
```


getCount()/getItem()/getItemId()

```
@Override
```

```
public int getCount() {  
    return listdata.size();  
}
```

```
@Override
```

```
public Object getItem(int position) {  
    return listdata.get(position).name;  
}
```

```
@Override
```

```
public long getItemId(int position) {  
    return position;  
}
```

getView()

```
public View getView(int position, View convertView, ViewGroup parent) {
    final int pos = position;
    if(convertView == null){
        convertView = Inflater.inflate(layout, parent, false);
    }

    ImageView img = (ImageView)convertView.findViewById(R.id.img);
    img.setImageResource(listdata.get(position).icon);

    TextView txt = (TextView)convertView.findViewById(R.id.text);
    txt.setText(listdata.get(position).name);

    Button btn = (Button)convertView.findViewById(R.id.btn);
    btn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            // TODO Auto-generated method stub
            String str = listdata.get(pos).name + "를 주문합니다.";
            Toast.makeText(maincon, str, Toast.LENGTH_SHORT).show();
        }
    });
    return convertView;
}
```

[실행결과]

