

activity_main.xml

```
<RelativeLayout 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" >

    <LinearLayout
        android:id="@+id/mainLayout"
        android:layout_alignParentTop="true"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        >
        <RelativeLayout
            android:id="@+id/LinearLayout01"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="5dp"
            >
            <EditText
                android:id="@+id/editSearch"
                android:layout_width="210dp"
                android:layout_height="wrap_content"
                android:layout_marginLeft="5dp"
                android:hint="약품명을 입력하세요."
            />
            <Button
                android:id="@+id/btnSearch"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_toRightOf="@id/editSearch"
                android:layout_marginLeft="5dp"
                android:layout_alignParentRight="true"
                android:height="44dp"
                android:text="검색"
            />
        </RelativeLayout>
    </LinearLayout>
    <LinearLayout
        android:id="@+id/linLayoutDrugList"
        android:orientation="vertical"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="70dp"
    >
    </LinearLayout>
</LinearLayout>
</RelativeLayout>
```

detail.xml

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

    <ScrollView
        android:id="@+id/ScrollView01"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
    >
```

```

        android:background="@drawable/paper_background"
    >
        <TextView
            android:id="@+id/txtMsg"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:textColor="#ff4a2410"
            android:textStyle="bold"
            android:textSize="16dp"
            android:paddingLeft="10dp"
            android:paddingRight="10dp"
            android:paddingTop="10dp"
            android:paddingBottom="10dp"
        />
    </ScrollView>
</LinearLayout>

```

listitem.xml

```

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    >
    <ImageView
        android:id="@+id/iconItem"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:padding="8dp"
        android:layout_gravity="center_vertical"
    />
    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:layout_alignParentLeft="true"
    >
        <TextView
            android:id="@+id/dataItem01"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:textStyle="bold"
            android:textSize="16dp"
            android:padding="5dp"
        />
        <RelativeLayout
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:padding="5dp"
        >
            <TextView
                android:id="@+id/dataItem02"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:paddingRight="10dp"
                android:textSize="14dp"
            />
            <TextView
                android:id="@+id/dataItem03"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_toRightOf="@id/dataItem02"

```

```

        android:textColor="#ccf88107"
        android:textSize="14dp"
        android:textStyle="bold"
        android:paddingRight="4dp"
    />
    <TextView
        android:id="@+id/dataItem04"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentRight="true"
        android:textSize="16dp"
        android:paddingRight="4dp"
    />
    </RelativeLayout>
</LinearLayout>
</LinearLayout>

```

DatabaseHelper.java

```

package org.androidtown.druginfo.view;

import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteException;
import android.util.Log;

public class DatabaseHelper {

    public static final String TAG = "DatabaseHelper";
    public static SQLiteDatabase db;
    public static String drugDatabaseFile = "/sdcard/druginfo.db";

    public DatabaseHelper() {
    }

    public static void openDatabase(String databaseFile) {
        println("creating or opening database [" + drugDatabaseFile + "].");
        try {
            db = SQLiteDatabase.openDatabase(
                databaseFile, null,
                SQLiteDatabase.OPEN_READWRITE);

            //Toast.makeText(this, "DB was opened!", 1).show();
        } catch (SQLiteException ex) {
            //Toast.makeText(this, ex.getMessage(), 1).show();
        }
    }

    public static void closeDatabase() {
        try {

```

```

        // close database
        db.close();
    } catch(Exception ext) {
        ext.printStackTrace();
        println("Exception in closing database : " + ext.toString());
    }
}

/**
 * Create MASTER table
 *
 * DRUGCODE, DRUGNAME, PRODENNM, PRODKRNM, PHRMNAME,
DISTRNAME, REPDGID, REPDGNAME
 */
private static void createMasterTable() {
    try {
        db.execSQL("drop table if exists MASTER");
        db.execSQL("create table MASTER("
            + " DRUGCODE text, "
            + " DRUGNAME text, "
            + " PRODENNM text, "
            + " PRODKRNM text, "
            + " PHRMNAME text, "
            + " DISTRNAME text, "
            + " REPDGID text, "
            + " REPDGNAME text" );

        //Toast.makeText(this, "Table was created!", 1).show();
    } catch (SQLiteException ex) {
        //Toast.makeText(this, ex.getMessage(), 1).show();
    }
}

/**
 * Insert MASTER data
 *
 * @param aLine
 */
public static boolean insertMasterData(String aLine) {
    // split the input line
    String[] tokens = aLine.split("\\|");
    if (tokens != null && tokens.length > 7) {
        println("length of tokens : " + tokens.length);
        db.execSQL( "insert into MASTER(DRUGCODE,
DRUGNAME, PRODENNM, PRODKRNM, PHRMNAME, DISTRNAME, REPDGID,
REPDGNAME) values (" +
            "" + tokens[0] + "," +
            "" + tokens[1] + "," +
            "" + tokens[2] + "," +
            "" + tokens[3] + "," +
            "" + tokens[4] + "," +
            "" + tokens[5] + "," +
            "" + tokens[6] + "," +
            "" + tokens[7] + ")");
    } else {
        return true;
        println("the input line is invalid.");
    }
    return false;
}
}

```

```

/**
 * Query MASTER table for example where clause
 * DRUGNAME like 'Acarbose%'
 */
public static Cursor queryMasterTable(String strSearchWord ) {
DISTRNAME "
    String aSQL = "select DRUGCODE, DRUGNAME, PRODKRNM,
        + " from MASTER"
        + " where DRUGNAME like ?";

    String[] args = {strSearchWord};

    Cursor outCursor = db.rawQuery(aSQL, args);

    return (outCursor);
}

/**
 * Query DETAILS table for example where clause
 * DRUGCODE = 'ACAR'
 */
public static Cursor queryDetailsTable(String strDrugCode) {
DETAILS "
    String aSQL = "select DRUGCODE, CLASSCODE, CLASSNAME,
        + " from DETAILS"
        + " where DRUGCODE = ?";

    String[] args = {strDrugCode};

    Cursor outCursor = db.rawQuery(aSQL, args);

    return (outCursor);
}

public static void println(String msg) {
    Log.d(TAG, msg);
    //textView.append("\n" + msg);
}
}
}

```

DataListView.java

```

package org.androidtown.druginfo.view;

import android.content.Context;
import android.util.AttributeSet;
import android.view.View;
import android.widget.AdapterView;
import android.widget.BaseAdapter;
import android.widget.ListView;

public class DataListView extends ListView {

```

```
/**
 * DataAdapter for this instance
 */
private IconTextListAdapter adapter;

/**
 * Listener for data selection
 */
private OnDataSelectionListener selectionListener;

public DataListView(Context context) {
    super(context);

    init();
}

public DataListView(Context context, AttributeSet attrs) {
    super(context, attrs);

    init();
}

/**
 * set initial properties
 */
private void init() {
    // set OnItemClickListener for processing OnDataSelectionListener
    setOnClickListener(new OnItemClickListener());
}

/**
 * set DataAdapter
 *
 * @param adapter
 */
public void setAdapter(BaseAdapter adapter) {
    super.setAdapter(adapter);
}
}
```

```

/**
 * get DataAdapter
 *
 * @return
 */
public BaseAdapter getAdapter() {
    return (BaseAdapter)super.getAdapter();
}

/**
 * set OnDataSelectionListener
 *
 * @param listener
 */
public void setOnDataSelectionListener(OnDataSelectionListener listener) {
    this.selectionListener = listener;
}

/**
 * get OnDataSelectionListener
 *
 * @return
 */
public OnDataSelectionListener getOnDataSelectionListener() {
    return selectionListener;
}

class OnItemClickListener implements OnItemClickListener {

    public OnItemClickListener() {

    }

    public void onItemClick(AdapterView parent, View v, int position,
long id) {

        if (selectionListener == null) {
            return;
        }

```

```

        // get row and column
        int rowIndex = -1;
        int columnIndex = -1;

        // call the OnDataSelectionListener method
        selectionListener.onDataSelected(parent, v, position, id);

    }

}
}
}

```

DrugDetailActivity.java

```

package org.androidtown.druginfo.view;

import android.app.Activity;
import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.util.Log;
import android.widget.TextView;

public class DrugDetailActivity extends Activity {
    public static final String TAG = "DrugDetailActivity";
    TextView txtMsg;

    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.detail);

        txtMsg = (TextView)findViewById(R.id.txtMsg);

        Intent intent = getIntent();
        Bundle bundle = intent.getExtras();

        String prodKName = bundle.getString("data0");
        String drugCode = bundle.getString("data1");
        String drugName = bundle.getString("data2");
        String distrName = bundle.getString("data3");
    }
}

```



```

        Cursor cursor = DatabaseHelper.queryDetailsTable(drugCode);

        HandleCursorData (cursor );

    }

    public void HandleCursorData ( Cursor outCursor ) {

        int recordCount = outCursor.getCount();
        println("cursor count : " + recordCount + "\n");

        // get column index
        int drugCodeCol = outCursor.getColumnIndex("DRUGCODE");
        int classCodeCol = outCursor.getColumnIndex("CLASSCODE");
        int classNameCol = outCursor.getColumnIndex("CLASSNAME");
        int detailsCol = outCursor.getColumnIndex("DETAILS");

        for (int i = 0; i < recordCount; i++) {
            outCursor.moveToNext();
            String drugCode = outCursor.getString(drugCodeCol);
            String classCode = outCursor.getString(classCodeCol);
            String className = outCursor.getString(classNameCol);
            String details = outCursor.getString(detailsCol);

            txtMsg.append("\n");
            txtMsg.append("[ " + className + " ]\n");
            txtMsg.append("\n");
            txtMsg.append(details + "\n\n");

            txtMsg.append("-----");
            txtMsg.append("\n");

        }

        outCursor.close();

    }

```

```

        public void println(String msg) {
            Log.d(TAG, msg);
        }
    }
}

```

IconTextItem.java

```

package org.androidtown.druginfo.view;
import android.graphics.drawable.Drawable;
public class IconTextItem {
    /**
     * Icon
     */
    private Drawable mIcon;

    /**
     * Data array
     */
    private String[] mData;

    /**
     * True if this item is selectable
     */
    private boolean mSelectable = true;

    /**
     * Initialize with icon and data array
     *
     * @param icon
     * @param obj
     */
    public IconTextItem(Drawable icon, String[] obj) {
        mIcon = icon;
        mData = obj;
    }

    /**
     * Initialize with icon and strings
     *
     * @param icon
     * @param obj01
     * @param obj02
     * @param obj03
     * @param obj04
     */
    public IconTextItem(Drawable icon, String obj01, String obj02, String
obj03, String obj04) {
        mIcon = icon;

        mData = new String[4];
        mData[0] = obj01;
        mData[1] = obj02;
        mData[2] = obj03;
        mData[3] = obj04;
    }
}

```

```

/**
 * True if this item is selectable
 */
public boolean isSelectable() {
    return mSelectable;
}

/**
 * Set selectable flag
 */
public void setSelectable(boolean selectable) {
    mSelectable = selectable;
}

/**
 * Get data array
 *
 * @return
 */
public String[] getData() {
    return mData;
}

/**
 * Get data
 */
public String getData(int index) {
    if (mData == null || index >= mData.length) {
        return null;
    }

    return mData[index];
}

/**
 * Set data array
 *
 * @param obj
 */
public void setData(String[] obj) {
    mData = obj;
}

/**
 * Set icon
 *
 * @param icon
 */
public void setIcon(Drawable icon) {
    mIcon = icon;
}

/**
 * Get icon
 *
 * @return
 */
public Drawable getIcon() {
    return mIcon;
}

/**
 * Compare with the input object

```

```

    *
    * @param other
    * @return
    */
    public int compareTo(IconTextItem other) {
        if (mData != null) {
            String[] otherData = other.getData();
            if (mData.length == otherData.length) {
                for (int i = 0; i < mData.length; i++) {
                    if (!mData[i].equals(otherData[i])) {
                        return -1;
                    }
                }
            } else {
                return -1;
            }
        } else {
            throw new IllegalArgumentException();
        }
        return 0;
    }
}

```

IconTextListAdapter.java

```

package org.androidtown.druginfo.view;

import java.util.ArrayList;
import java.util.List;

import android.content.Context;
import android.view.View;
import android.view.ViewGroup;
import android.widget.BaseAdapter;

public class IconTextListAdapter extends BaseAdapter {

    private Context mContext;

    private List<IconTextItem> mItems = new ArrayList<IconTextItem>();

    public IconTextListAdapter(Context context) {
        mContext = context;
    }

    public void clear() {
        mItems.clear();
    }
}

```

```
public void addItem(IconTextItem it) {
    mItems.add(it);
}

public void setListItems(List<IconTextItem> lit) {
    mItems = lit;
}

public int getCount() {
    return mItems.size();
}

public Object getItem(int position) {
    return mItems.get(position);
}

public boolean areAllItemsSelectable() {
    return false;
}

public boolean isSelectable(int position) {
    try {
        return mItems.get(position).isSelectable();
    } catch (IndexOutOfBoundsException ex) {
        return false;
    }
}

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

public View getView(int position, View convertView, ViewGroup parent) {
    IconTextView itemView;
    if (convertView == null) {
        itemView = new IconTextView(mContext,
mItems.get(position));
    } else {
        itemView = (IconTextView) convertView;
```

```

        itemView.setIcon(mItems.get(position).getIcon());
        itemView.setText(0, mItems.get(position).getData(0));
        itemView.setText(1, mItems.get(position).getData(1));
        itemView.setText(2, mItems.get(position).getData(2));
        itemView.setText(3, mItems.get(position).getData(3));
    }

    return itemView;
}
}

```

IconTextView.java

```

package org.androidtown.druginfo.view;

import android.content.Context;
import android.graphics.drawable.Drawable;
import android.view.LayoutInflater;
import android.widget.ImageView;
import android.widget.LinearLayout;
import android.widget.TextView;

public class IconTextView extends LinearLayout {

    /**
     * Icon
     */
    private ImageView mIcon;

    /**
     * TextView 01
     */
    private TextView mText01;

    /**
     * TextView 02
     */
    private TextView mText02;
}

```

```

/**
 * TextView 03
 */
private TextView mText03;

/**
 * TextView 04
 */
private TextView mText04;

public IconTextView(Context context, IconTextItem altem) {
    super(context);

    // Layout Inflation
    LayoutInflater inflater = (LayoutInflater)
context.getSystemService(Context.LAYOUT_INFLATER_SERVICE);
    inflater.inflate(R.layout.listitem, this, true);

    // Set Icon
    mIcon = (ImageView) findViewById(R.id.iconItem);
    mIcon.setImageDrawable(altem.getIcon());

    // Set Text 01
    mText01 = (TextView) findViewById(R.id.dataItem01);
    mText01.setText(altem.getData(0));

    // Set Text 02
    mText02 = (TextView) findViewById(R.id.dataItem02);
    mText02.setText(altem.getData(1));

    // Set Text 03
    mText03 = (TextView) findViewById(R.id.dataItem03);
    mText03.setText(altem.getData(2));

    // Set Text 04
    mText04 = (TextView) findViewById(R.id.dataItem04);
    mText04.setText(altem.getData(3));

}

```

```

    /**
     * set Text
     *
     * @param index
     * @param data
     */
    public void setText(int index, String data) {
        if (index == 0) {
            mText01.setText(data);
        } else if (index == 1) {
            mText02.setText(data);
        } else if (index == 2) {
            mText03.setText(data);
        } else if (index == 3) {
            mText04.setText(data);
        } else {
            throw new IllegalArgumentException();
        }
    }

    /**
     * set Icon
     *
     * @param icon
     */
    public void setIcon(Drawable icon) {
        mIcon.setImageDrawable(icon);
    }
}

```

MainActivity.java

```

package org.androidtown.druginfo.view;

import android.app.Activity;
import android.content.Context;
import android.content.Intent;
import android.content.res.Resources;
import android.database.Cursor;
import android.os.Bundle;
import android.util.Log;
import android.view.Menu;
import android.view.View;

```



```

import android.view.View.OnClickListener;
import android.view.inputmethod.InputMethodManager;
import android.widget.AdapterView;
import android.widget.Button;
import android.widget.EditText;
import android.widget.LinearLayout;

/**
 * 약품정보 리스트를 샘플로 만들어볼 수 있습니다.
 *
 * @author Mike
 */
public class MainActivity extends Activity {
    public static final String TAG = "SampleDrugInfoView";

    EditText editSearch;
    DataListView listView;
    IconTextListAdapter adapter;
    Button btnSearch;
    InputMethodManager imm;

    String strSearch;
    String strSearchQuery;

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

        imm =
(InputMethodManager) getSystemService(Context.INPUT_METHOD_SERVICE);

        // adapter
        adapter = new IconTextListAdapter(this);

        // ListView
        listView = new DataListView(this);

        LinearLayout linLayout =
(LinearLayout)findViewById(R.id.linLayoutDrugList );
        linLayout.addView(listView);

        editSearch = (EditText) findViewById(R.id.editSearch);

        btnSearch = (Button) findViewById(R.id.btnSearch);
        btnSearch.setOnClickListener( new OnClickListener () {
            public void onClick(View v) {

                strSearch = editSearch.getText().toString();
                strSearchQuery = strSearch.concat("%");

                // open database
                DatabaseHelper.openDatabase(
DatabaseHelper.drugDatabaseFile);
                Cursor cursor =
DatabaseHelper.queryMasterTable(strSearchQuery);

                AddCursorData(cursor);

                // bind Adapter
                listView.setAdapter(adapter);

```

```

        // hide soft keypad
imm.hideSoftInputFromWindow(editSearch.getWindowToken(), 0);

    });

    listView.setOnItemClickListener( new OnDataSelectionListener () {
        public void onDataSelected(AdapterView parent, View v, int
position, long id) {
            // make intent
            IconTextItem selectItem =
(IconTextItem)adapter.getItem(position);

            //String title = selectItem.getData(0);
            Bundle bundle = new Bundle();
            bundle.putString("data0", selectItem.getData(0));
            bundle.putString("data1", selectItem.getData(1));
            bundle.putString("data2", selectItem.getData(2));
            bundle.putString("data3", selectItem.getData(3));

            Intent intent = new Intent(
getApplicationContext(), DrugDetailActivity.class );
            intent.putExtras(bundle);
            startActivity ( intent );
        }
    });
}

protected void onDestroy() {
    super.onDestroy();

    DatabaseHelper.closeDatabase();
}

public void AddCursorData ( Cursor outCursor ) {

    int recordCount = outCursor.getCount();
    println("cursor count : " + recordCount + "\n");

    adapter.clear();

    // get column index
    int drugCodeCol = outCursor.getColumnIndex("DRUGCODE");
    int drugNameCol = outCursor.getColumnIndex("DRUGNAME");
    int prodKNameCol = outCursor.getColumnIndex("PRODKRNM");
    int distrNameCol = outCursor.getColumnIndex("DISTRNAME");

    // get resources
    Resources res = getResources();

    for (int i = 0; i < recordCount; i++) {
        outCursor.moveToNext();
        String drugCode = outCursor.getString(drugCodeCol);
        String drugName = outCursor.getString(drugNameCol);
        String prodKName = outCursor.getString(prodKNameCol);
        String distrName = outCursor.getString(distrNameCol);

        adapter.addItem( new

```

```

IconTextItem(res.getDrawable(R.drawable.capsule1),prodKName,drugCode
,drugName,distrName));
        }

        outCursor.close();
    }

    public void println(String msg) {
        Log.d(TAG, msg);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }
}

```

OnDataSelectionListener.java

```

package org.androidtown.druginfo.view;

import android.view.View;
import android.widget.AdapterView;

/**
 * Interface that is called when an item is selected in DataListView
 *
 * @author Mike
 */
public interface OnDataSelectionListener {

    /**
     * Method that is called when an item is selected in DataListView
     *
     * @param parent Parent View
     * @param v Target View
     * @param row Row Index
     * @param column Column Index
     * @param id ID for the View
     */
    public void onDataSelected(AdapterView parent, View v, int position, long id);
}

```