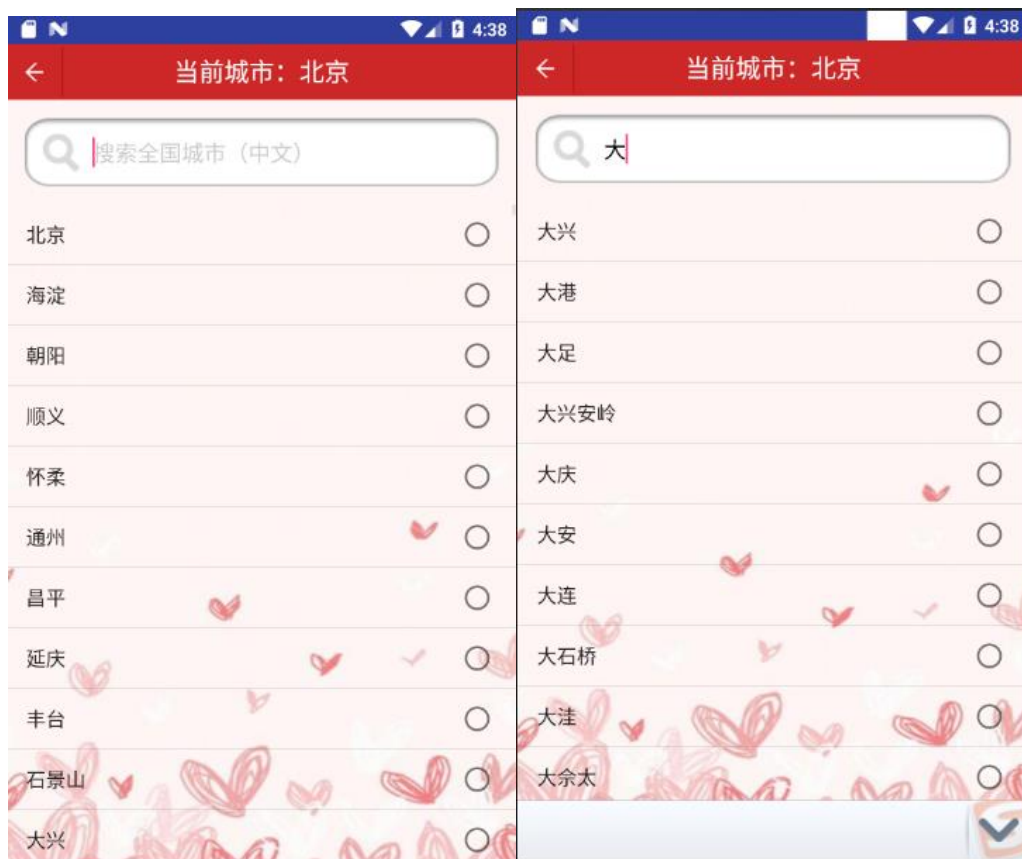


EditText 实现城市搜索

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摘要：使用 EditText 实现搜索城市的功能，以此为依据更新 ListView。

1. 效果图:



2.主要步骤

(1) 在 `select-city.xml` 布局文件中添加 `EditText` 控件用作搜索框，然后添加 `ListView` 控件用来显示城市名字内容。代码如下：

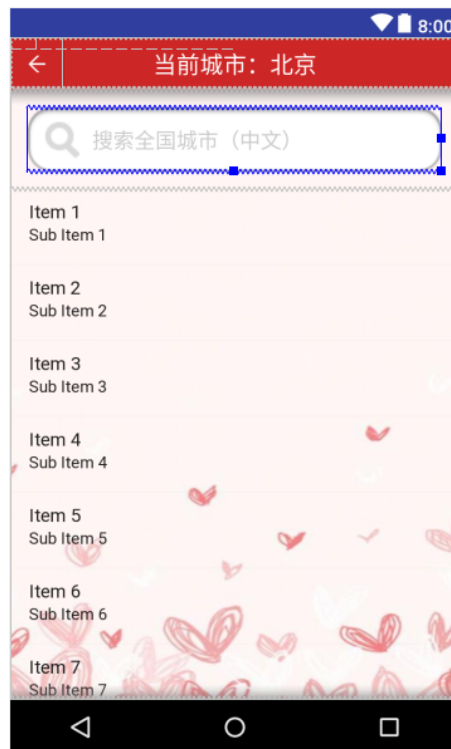
```

<EditText
    android:id="@+id/search_edit"
    android:imeOptions="actionSearch"
    android:layout_width="fill_parent"
    android:layout_height="55dp"
    android:layout_margin="15.0dp"
    android:background="@drawable/contact_search_box_edittext_keyword_background"
    android:drawableLeft="@drawable/magnifying_glass"
    android:drawablePadding="10.0dp"
    android:hint="搜索全国城市（中文）"
    android:paddingBottom="14.0dp"
    android:paddingLeft="15.0dp"
    android:paddingRight="30.0dp"
    android:paddingTop="15.0dp"
    android:singleLine="true"
    android:textColor="#ff000000"
    android:textColorHint="#ffcccc" />

<ListView
    android:id="@+id/list_view"
    android:choiceMode="singleChoice"
    android:dividerHeight="2px"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content">
</ListView>

```

预览图：



(2) 在 SelectCity.java 中增加控件，用于绑定 select_city 文件的 ListView, TextView, EditText 等控件。代码和注释如下：

```
// 搜索栏和ListView
private ListView listView = null; //声明listview对象, 用于绑定select_city布局文件中的ListView
private TextView cityselected = null; //声明TextView对象, 用于绑定select_city布局文件中顶部栏的显示内容

private List<City> listcity = MyApplication.getInstance().getCityList();
private int listSize = listcity.size(); //建立listcity长度的String[]数组, 用于存储要在ListView中展示的内容
private String[] city = new String[listSize];

private ArrayList<String> mSearchResult = new ArrayList<>(); //搜索结果
private Map<String, String> nameToCode = new HashMap<>(); //城市名到编码
private Map<String, String> nameToPinyin = new HashMap<>(); //城市名到拼音

//搜索功能
private EditText mSearch;
```

(3) 在 SelectCity.java 中编写 2 个 HashMap, 用于存放名字到城市编码还有名字到拼音的映射。为了通过城市名称返回 MainActivity.java 的城市代码。

```
//建立映射
String strName;
String strNamePinyin;
String strCode;

for(City city1:listcity) {
    strCode = city1.getNumber();
    strName = city1.getCity();
    strNamePinyin = city1.getFirstPY();
    nameToCode.put(strName, strCode);
    nameToPinyin.put(strName, strNamePinyin);
    mSearchResult.add(strName);
}
```

(4) 在 SelectCity.java 中, 为 ListView 设置适配器。

```
final ArrayAdapter<String> arrayAdapter = new ArrayAdapter<>(context, this, android.R.layout.simple_list_item_single_choice, mSearchResult);
listView = findViewById(R.id.list_view);
listView.setAdapter(arrayAdapter); //设置适配器
listView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
        String returnCityName = mSearchResult.get(i);
        Toast.makeText(context, SelectCity.this, text: "你已选择: " + returnCityName, Toast.LENGTH_SHORT).show();
        cityselected.setText("当前城市: " + city[i]);
        returnCode = nameToCode.get(returnCityName);
        Log.d(tag, "returncode", returnCode);
        cityselected.setText("当前城市: " + returnCityName);
    }
});
```

(5) 通过 ArrayAdapter 的 getFilter()方法来实现搜索功能。

```

mSearch = (EditText)findViewById(R.id.search_edit);
mSearch.addTextChangedListener(new TextWatcher() {

    @Override
    public void beforeTextChanged(CharSequence s, int start, int count, int after) {

    }

    @Override
    public void onTextChanged(CharSequence s, int start, int before, int count) {
        arrayAdapter.getFilter().filter(s);
    }

    @Override
    public void afterTextChanged(Editable s) {

    }

});

```

(6) 在 OnClick 方法中通过 Intent 传递城市代码。

```

@Override
public void onClick(View v) {
    if (v.getId() == R.id.title_back) {
        Log.d(tag: "myWeather", msg: "我点击了返回界面");
        int position = listView.getCheckedItemPosition();
        String select_cityCode = listcity.get(position).getNumber();
        Intent i = new Intent();
        i.putExtra(name: "cityCode", returnCode);
        setResult(RESULT_OK, i);
        finish();
    }

    if (v.getId() == R.id.title_name) {
        Log.d(tag: "myWeather", msg: "我是北京");
    }
}

```

(7) 运行安卓虚拟机，发现无法输入中文。我们可以通过下载搜狗输入法到虚拟机中解决，但是需要 X86 版本。在本机下载好 apk 安装包后，直接拖动到虚拟机内即可完成安装。然后设置为默认输入法即可。搜狗输入 X86 版较为难找。百度网盘如下：<https://pan.baidu.com/s/1kal2Y9E2r9IJXagging1qQ>



3.参考资料

- (1) <https://blog.csdn.net/lone1ycode/article/details/79558021>
- (2) <https://www.jb51.net/article/109480.htm>
- (3) https://blog.csdn.net/qg_20082961/article/details/52504400

4.源代码:

- (1) Select_city.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <RelativeLayout
        android:id="@+id/city_title"
        android:layout_width="fill_parent"
        android:layout_height="45.0dip"
        android:background="#ffcd2626">

        <TextView
            android:id="@+id/title_name"
            android:layout_width="fill_parent"
            android:layout_height="fill_parent"
```

```
        android:gravity="center"
        android:text="当前城市：北京"
        android:textColor="#ffffffff"
        android:textSize="20.0dip" />
```

<ImageView

```
        android:id="@+id/title_back"
        android:layout_width="45.0dip"
        android:layout_height="45.0dip"
        android:layout_alignParentLeft="true"
        android:layout_centerVertical="true"
        android:src="@drawable/base_action_bar_back_normal" />
```

<ImageView

```
        android:layout_width="1.0dip"
        android:layout_height="40dip"
        android:layout_centerVertical="true"
        android:layout_gravity="center"
        android:layout_toRightOf="@id/title_back"
        android:background="#A71717"
        android:gravity="center" />
```

</RelativeLayout>

<LinearLayout

```
        android:background="@drawable/love"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:layout_below="@+id/city_title">
```

<ListView

```
        android:id="@+id/list_view"
        android:choiceMode="singleChoice"
        android:dividerHeight="2px"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content">
```

</ListView>

</LinearLayout>

<EditText

```
        android:id="@+id/search_edit"
        android:layout_width="fill_parent"
        android:layout_height="55dp"
```

```

        android:layout_alignParentBottom="true"
        android:layout_alignParentEnd="true"

android:background="@drawable/contact_search_box_edittext_keyword_backgr
ound"

        android:drawableLeft="@drawable/magnifying_glass"
        android:drawablePadding="10.0dip"
        android:hint="搜索全国城市（中文）"
        android:imeOptions="actionSearch"
        android:paddingBottom="14.0dp"
        android:paddingLeft="15.0dp"
        android:paddingRight="30.0dp"
        android:paddingTop="15.0dp"
        android:singleLine="true"
        android:textColor="#ff000000"
        android:textColorHint="#ffcccccc" />

</RelativeLayout>

```

(2) SelectCity.java

```

package com.example.zouyu.miniweather;

import com.example.zouyu.app.MyApplication;
import com.example.zouyu.bean.City;

import android.app.Activity;
import android.content.Intent;
import android.content.SearchRecentSuggestionsProvider;
import android.os.Bundle;
import android.support.annotation.Nullable;
import android.text.Editable;
import android.text.TextWatcher;
import android.util.Log;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import java.util.ArrayList;

```

```

import java.util.HashMap;
import java.util.List;
import java.util.Map;

public class SelectCity extends Activity implements
View.OnClickListener {
    // 监听按钮
    private ImageView mBackBtn;
    private TextView mTestBtn;

    // 搜索栏和 ListView
    private ListView listView = null; // 声名 listview 对象，用于绑定
select_city 布局文件中的 ListView
    private TextView cityselected = null; // 声名 TextView 对象，用于绑定
select_city 布局文件中顶部栏的显示内容

    private List<City> listcity =
MyApplication.getInstance().getCityList();
    private int listSize = listcity.size(); // 建立 listcity 长度的
String[] 数组，用于存储要在 ListView 中展示的内容
    private String[] city = new String[listSize];

    private ArrayList<String> mSearchResult = new ArrayList<>(); // 搜
索结果
    private Map<String, String> nameToCode = new HashMap<>(); // 城市名
到编码
    private Map<String, String> nameToPinyin = new HashMap<>(); // 城市
名到拼音

    // 搜索功能
    private EditText mSearch;

    String returnCode;

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

        // onclick 方法要在这里写绑定监听事件
        mBackBtn = (ImageView) findViewById(R.id.title_back);
        mBackBtn.setOnClickListener(this);

        mTestBtn = (TextView) findViewById(R.id.title_name);

```

```

        mTestBtn.setOnClickListener(this);
//        实现 ListView 对数组的展示
//        listView = new ListView(this);
//        listView.setAdapter(new
ArrayAdapter<String>(this, android.R.layout.simple_expandable_list_item_1
,getData()));
//        setContentView(listView);
cityselected = (TextView) findViewById(R.id.title_name);
Log.i("City", listcity.get(1).getCity());
for (int i = 0; i < listSize; i++) {
    city[i] = listcity.get(i).getCity();
    Log.d("City", city[i]);
}

//建立映射
String strName;
String strNamePinyin;
String strCode;

for(City city1:listcity){
    strCode = city1.getNumber();
    strName = city1.getCity();
    strNamePinyin = city1.getFirstPY();
    nameToCode.put(strName, strCode);
    nameToPinyin.put(strName, strNamePinyin);
    mSearchResult.add(strName);
}

final ArrayAdapter<String> arrayAdapter = new
ArrayAdapter<String>(this,
android.R.layout.simple_list_item_single_choice, mSearchResult);
listView = findViewById(R.id.list_view);
listView.setAdapter(arrayAdapter); //设置适配器
listView.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> adapterView, View
view, int i, long l) {
        String returnCityName = mSearchResult.get(i);
        Toast.makeText(SelectCity.this, "你已选择: " +
returnCityName, Toast.LENGTH_SHORT).show();
//        cityselected.setText("当前城市: " + city[i]);
returnCode = nameToCode.get(returnCityName);

```

```

        Log.d("returncode",returnCode);
        cityselected.setText("当前城市: " + returnCityName);
    }
});

mSearch = (EditText)findViewById(R.id.search_edit);
mSearch.addTextChangedListener(new TextWatcher() {
    @Override
    public void beforeTextChanged(CharSequence s, int start,
int count, int after) {

    }

    @Override
    public void onTextChanged(CharSequence s, int start, int
before, int count) {
        arrayAdapter.getFilter().filter(s);
    }

    @Override
    public void afterTextChanged(Editable s) {

    }
});
}

private List<String> getData() {
    List<String> data = new ArrayList<String>();
    data.add("测试数据 1");
    data.add("测试数据 2");
    data.add("测试数据 3");

    return data;
}

@Override
public void onClick(View v) {
    if (v.getId() == R.id.title_back) {
        Log.d("myWeather", "我点击了返回界面");
        int position = listView.getCheckedItemPosition();
        String select_cityCode =
listcity.get(position).getNumber();
        Intent i = new Intent();
        i.putExtra("cityCode",returnCode );
    }
}

```

```
        setResult(RESULT_OK, i);
        finish();
    }

    if (v.getId() == R.id.title_name) {
        Log.d("myWeather", "我是北京");
    }
}
}
```