

从数据库中读取城市列表

数据库文件：[下载地址](#)

city.db城市数据库文件格式如下

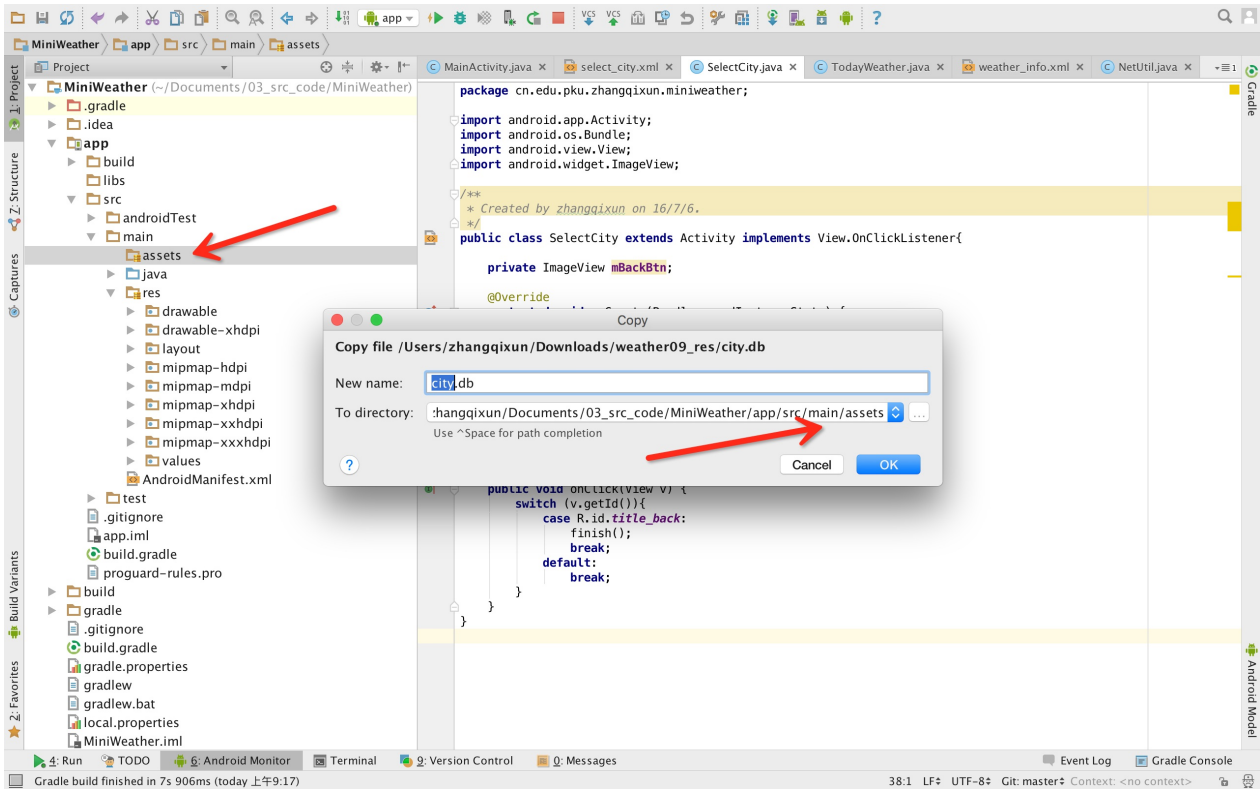
city.db (SQLite 3)
表 (2)
android_metadata
city
视图

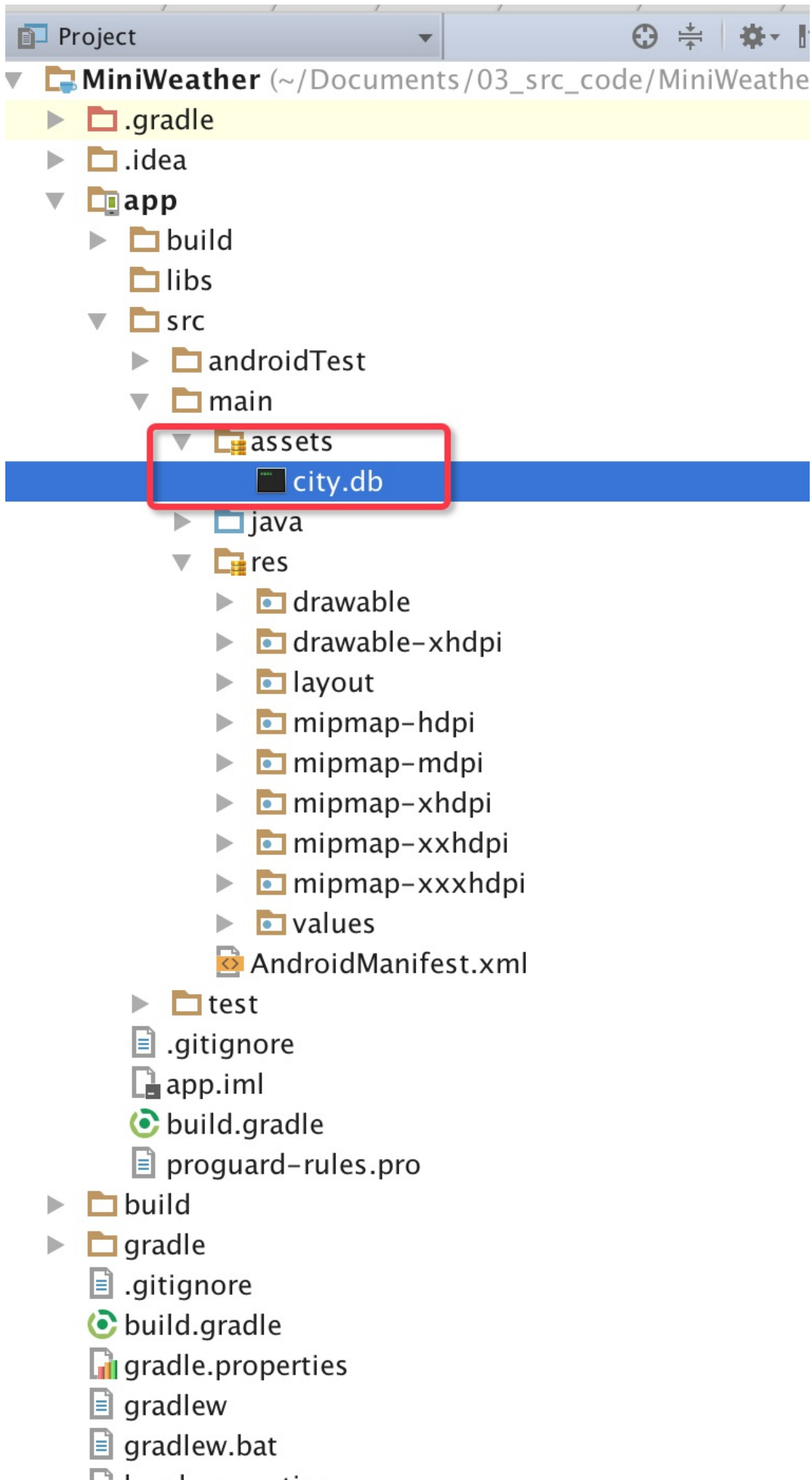
#	_id	province	city	number	allpy	allfirstpy	firstpy
1	1	北京	北京	101010100	BEIJING	BJ	B
2	2	北京	海淀	101010200	HAIDIAN	HD	H
3	3	北京	朝阳	101010300	CHAOYANG	CY	C
4	4	北京	顺义	101010400	SHUNYI	SY	S
5	5	北京	怀柔	101010500	HUAIROU	HR	H
6	6	北京	通州	101010600	TONGZHOU	TZ	T
7	7	北京	昌平	101010700	CHANGPING	CP	C
8	8	北京	延庆	101010800	YANQING	YQ	Y
9	9	北京	丰台	101010900	FENGTAI	FT	F
10	10	北京	石景山	101011000	SHJINGSHAN	SJS	S
11	11	北京	大兴	101011100	DAXING	DX	D
12	12	北京	房山	101011200	FANGSHAN	FS	F
13	13	北京	密云	101011300	MIYUN	MY	M
14	14	北京	门头沟	101011400	MENTOUGOU	MTG	M
15	15	北京	平谷	101011500	PINGGU	PG	P
16	16	北京	八达岭	101011600	BADALING	BDL	B
17	17	北京	佛爷顶	101011700	FOYEDING	FYD	F
18	18	北京	汤河口	101011800	TANGHEKOU	THK	T
19	19	北京	密云上甸子	101011900	MIYUNSHANGDIANZI	MYSZ	M
20	20	北京	斋堂	101012000	ZHAI TANG	ZT	Z
21	21	北京	霞云岭	101012100	XIAYUNLING	XYL	X
22	22	上海	上海	101020100	SHANGHAI	SH	S
23	23	上海	闵行	101020200	MINXING	MX	M
24	24	上海	宝山	101020300	BAOSHAN	BS	B

主要步骤

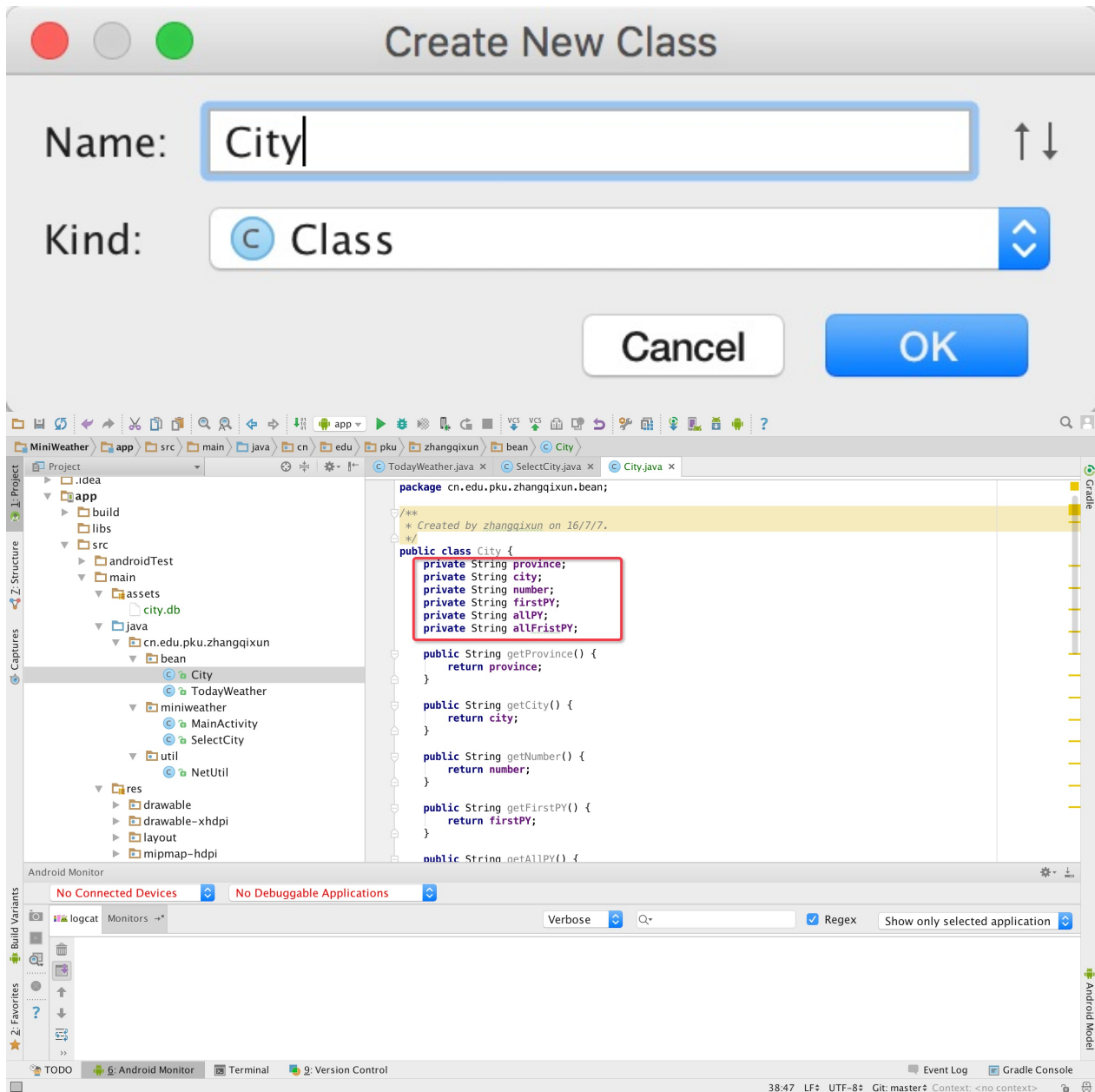
1.将数据库文件导入到assets目录

9.从数据库中读取城市列表



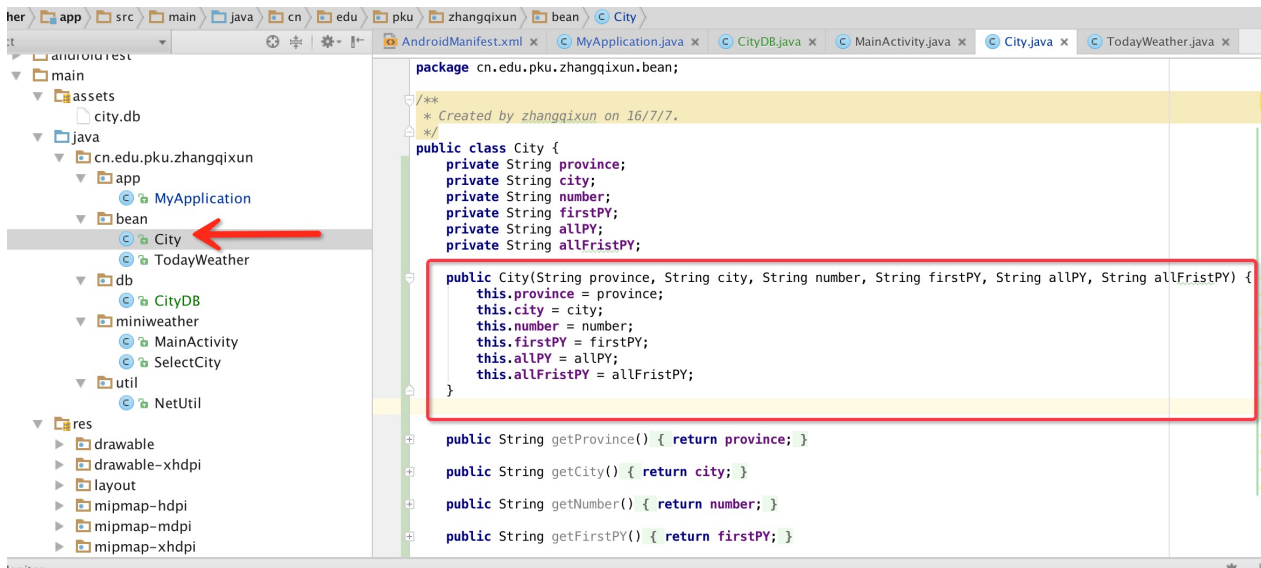


2.建立City的Bean



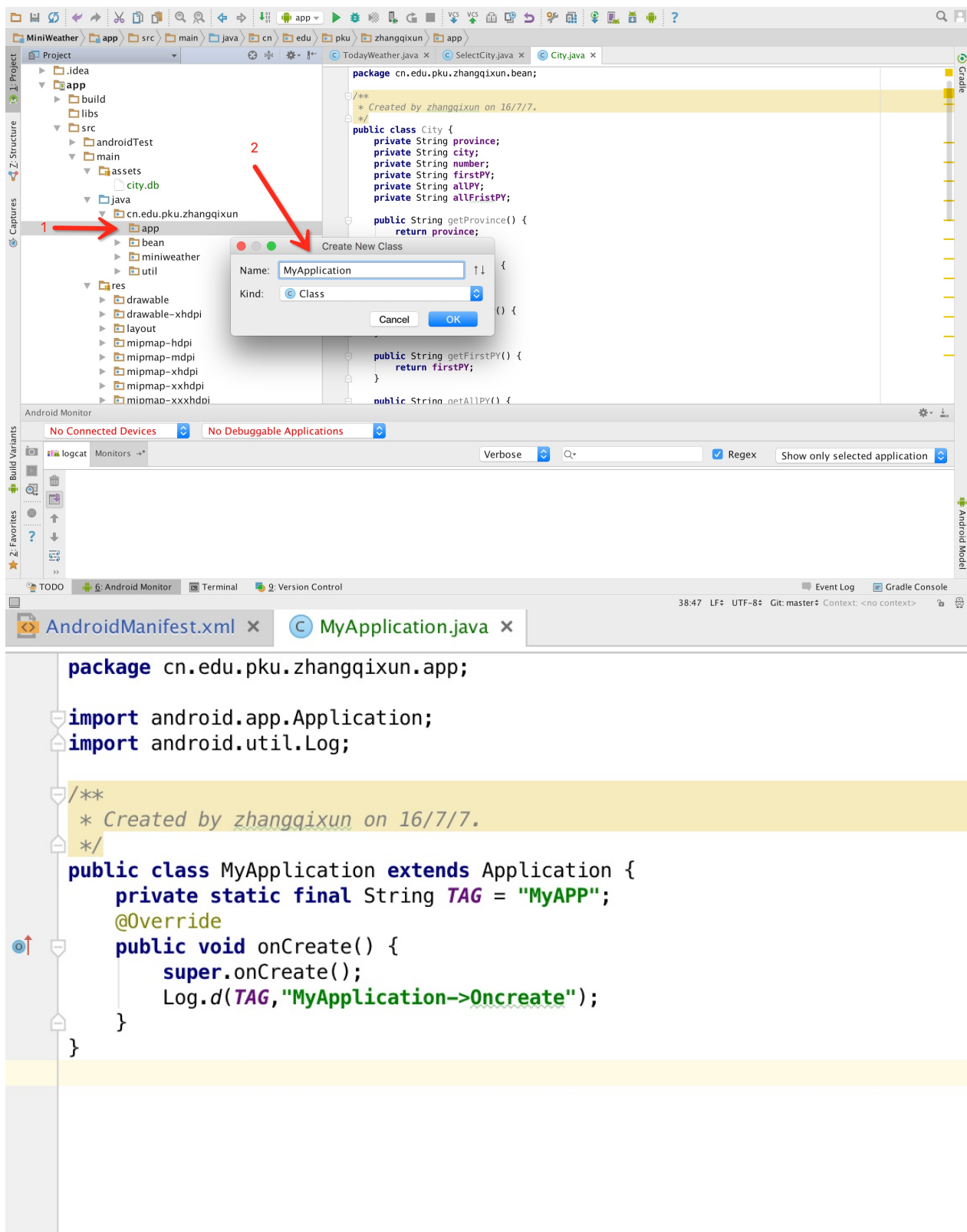
```
private String province;
private String city;
private String number;
private String firstPY;
private String allPY;
private String allFristPY;
```


增加一个构造函数City



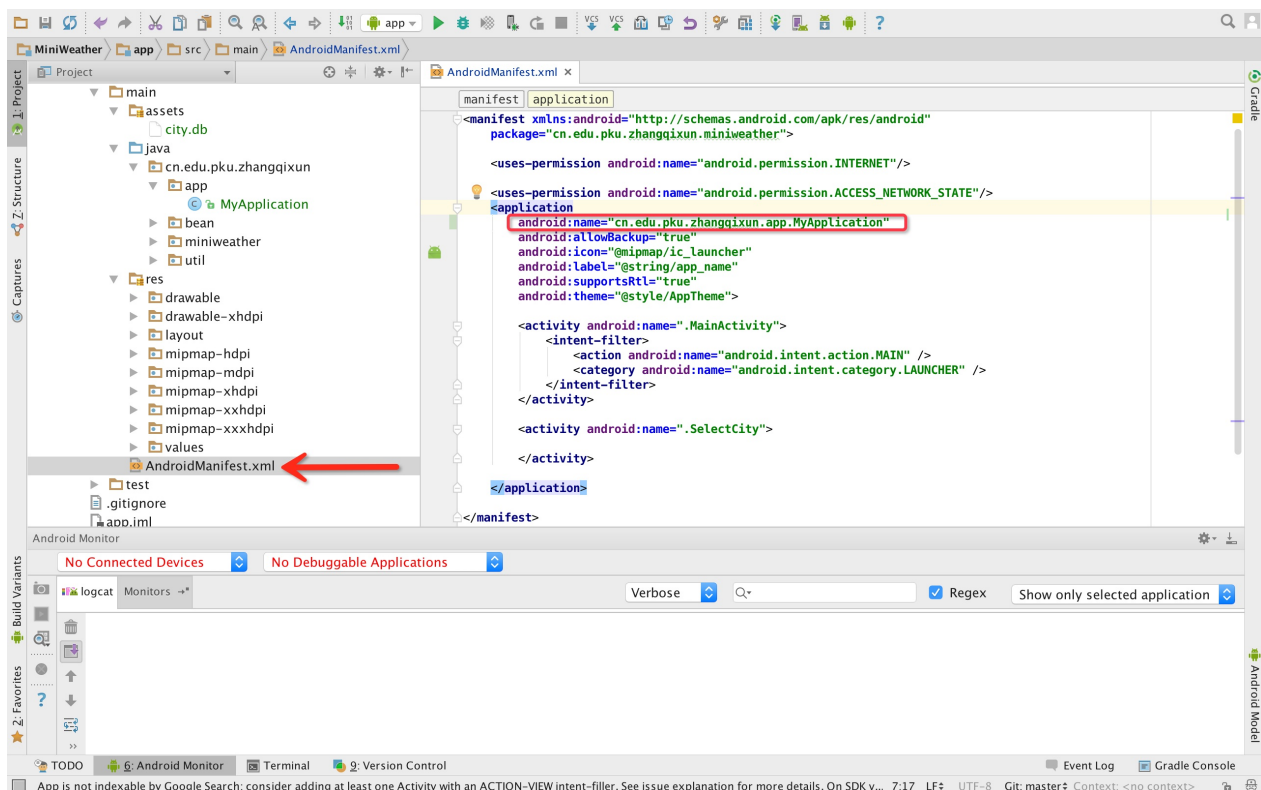
```
public City(String province, String city, String number, String
firstPY, String allPY, String allFristPY) {
    this.province = province;
    this.city = city;
    this.number = number;
    this.firstPY = firstPY;
    this.allPY = allPY;
    this.allFristPY = allFristPY;
}
```

3.建立MyApplication类

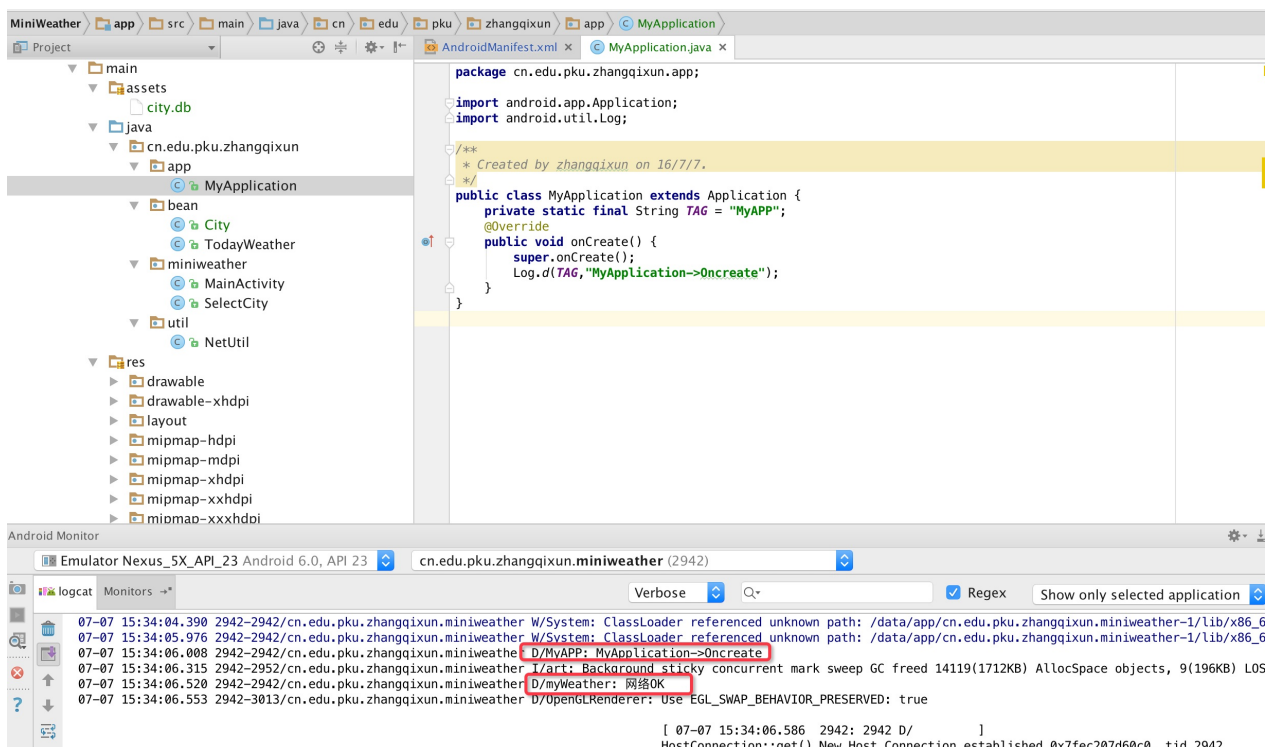


在AndroidManifest.xml文件中注册Application，代码如下图所示：

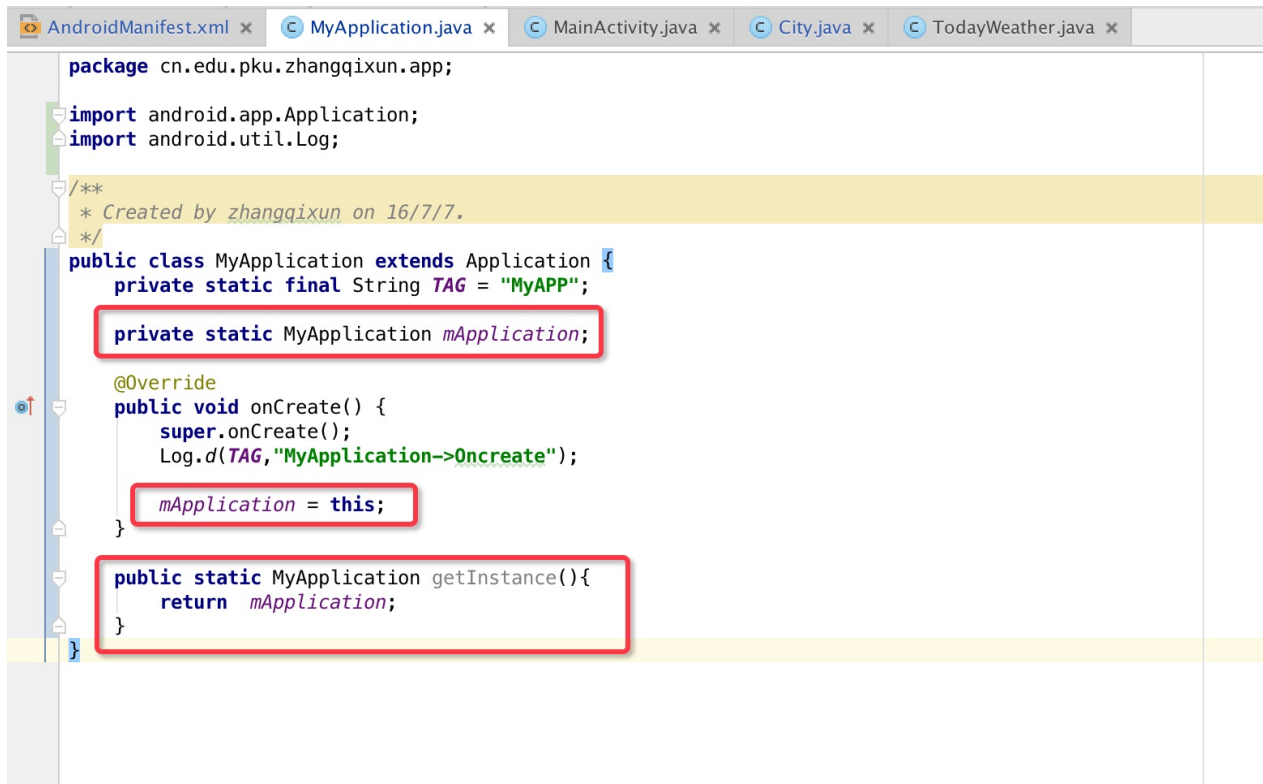
9.从数据库中读取城市列表



运行程序结果如下：



4.在MyApplication类中创建geilnstance方法



```
package cn.edu.pku.zhangqixun.app;

import android.app.Application;
import android.util.Log;

/**
 * Created by zhangqixun on 16/7/7.
 */
public class MyApplication extends Application {
    private static final String TAG = "MyAPP";

    private static MyApplication mApplication;

    @Override
    public void onCreate() {
        super.onCreate();
        Log.d(TAG, "MyApplication->Oncreate");

        mApplication = this;
    }

    public static MyApplication getInstance(){
        return mApplication;
    }
}
```

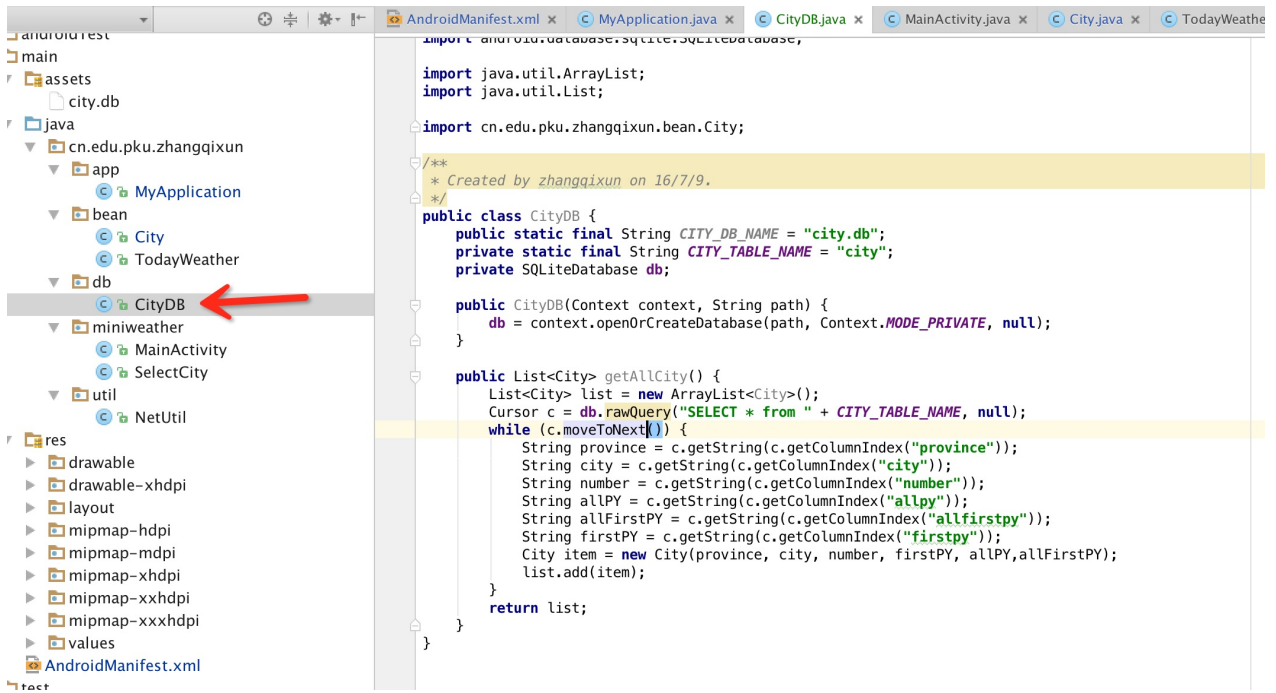
```
private static MyApplication mApplication;
```

```
mApplication = this;
```

```
public static MyApplication getInstance(){
    return mApplication;
}
```

5.创建CityDB操作类

9.从数据库中读取城市列表

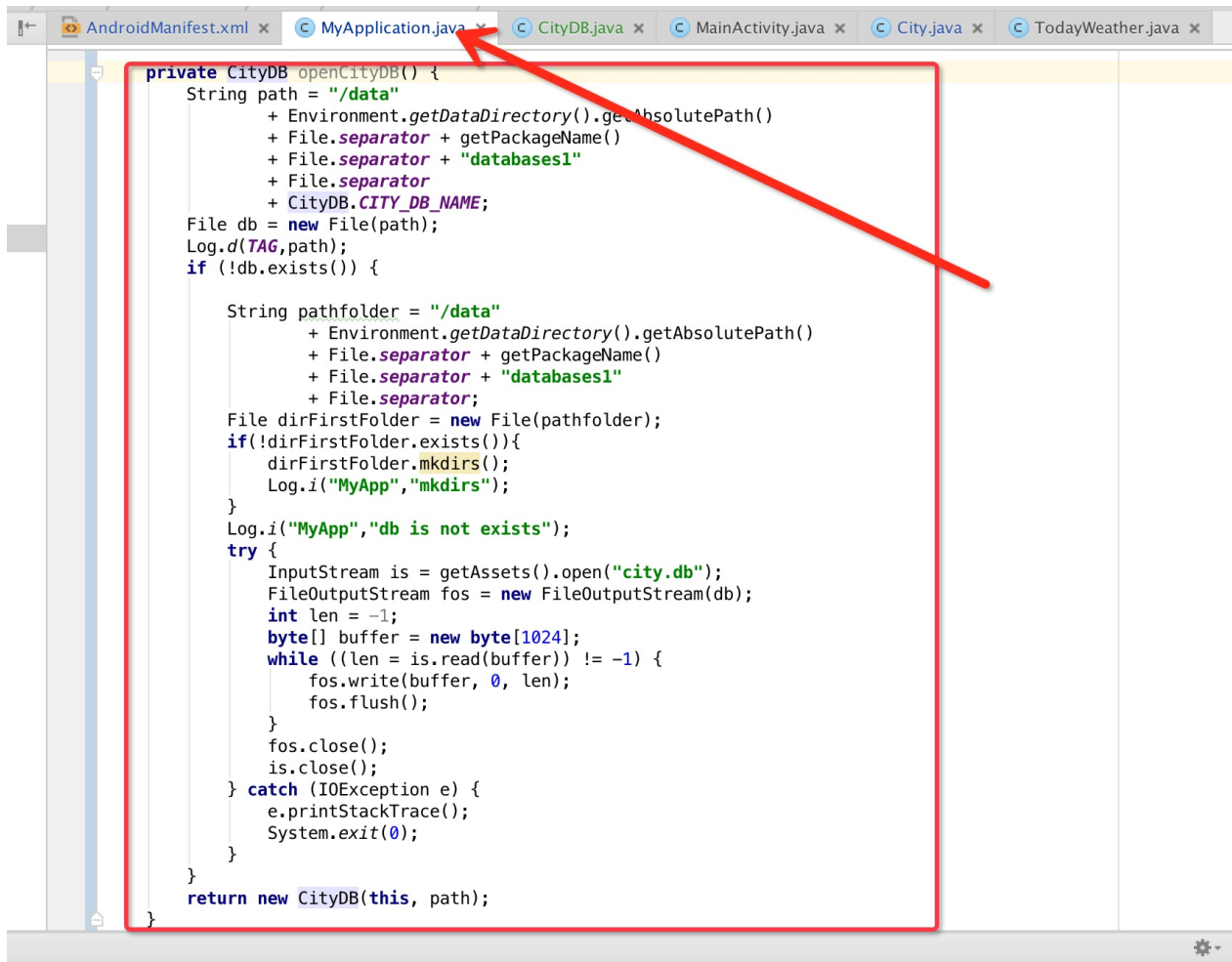


```
public class CityDB {
    public static final String CITY_DB_NAME = "city.db";
    private static final String CITY_TABLE_NAME = "city";
    private SQLiteDatabase db;

    public CityDB(Context context, String path) {
        db = context.openOrCreateDatabase(path, Context.MODE_PRIVATE, null);
    }

    public List<City> getAllCity() {
        List<City> list = new ArrayList<City>();
        Cursor c = db.rawQuery("SELECT * from " + CITY_TABLE_NAME, null);
        while (c.moveToNext()) {
            String province = c.getString(c.getColumnIndex("province"));
            String city = c.getString(c.getColumnIndex("city"));
            String number = c.getString(c.getColumnIndex("number"));
            String allPY = c.getString(c.getColumnIndex("allpy"));
            String allFirstPY = c.getString(c.getColumnIndex("allfirstpy"));
            String firstPY = c.getString(c.getColumnIndex("firstpy"));
            City item = new City(province, city, number, firstPY, allPY, allFirstPY);
            list.add(item);
        }
        return list;
    }
}
```

6.创建打开数据库的方法



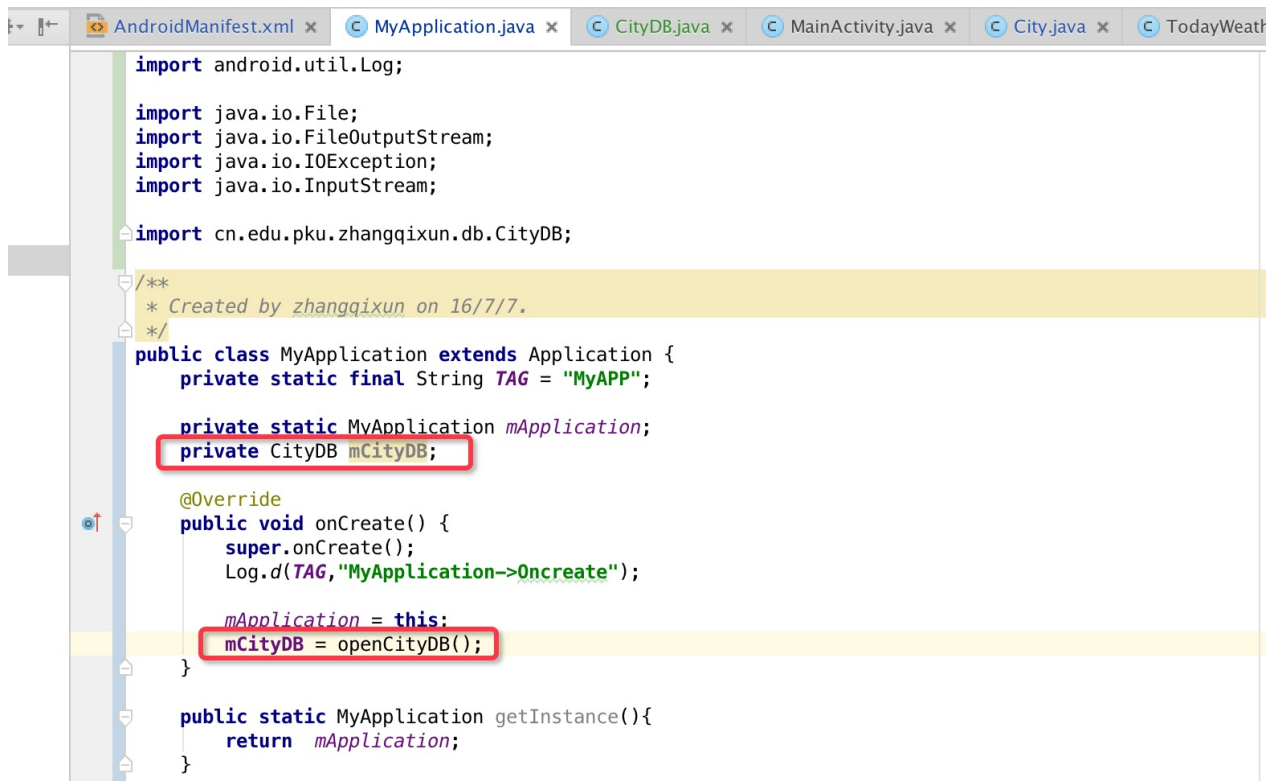
```

private CityDB openCityDB() {
    String path = "/data"
        + Environment.getDataDirectory().getAbsolutePath
    ()
        + File.separator + getPackageName()
        + File.separator + "databases1"
        + File.separator
        + CityDB.CITY_DB_NAME;
    File db = new File(path);
    Log.d(TAG, path);
    if (!db.exists()) {
        String pathfolder = "/data"
            + Environment.getDataDirectory().getAbsolute
    Path()
            + File.separator + getPackageName()
            + File.separator + "databases1"
            + File.separator;

```

```
File dirFirstFolder = new File(pathfolder);
if(!dirFirstFolder.exists()){
    dirFirstFolder.mkdirs();
    Log.i("MyApp", "mkdirs");
}
Log.i("MyApp", "db is not exists");
try {
    InputStream is = getAssets().open("city.db");
    FileOutputStream fos = new FileOutputStream(db);
    int len = -1;
    byte[] buffer = new byte[1024];
    while ((len = is.read(buffer)) != -1) {
        fos.write(buffer, 0, len);
        fos.flush();
    }
    fos.close();
    is.close();
} catch (IOException e) {
    e.printStackTrace();
    System.exit(0);
}
}
return new CityDB(this, path);
}
```


在Application类中，打开数据库。



```
import android.util.Log;

import java.io.File;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;

import cn.edu.pku.zhangqixun.db.CityDB;

/**
 * Created by zhangqixun on 16/7/7.
 */
public class MyApplication extends Application {
    private static final String TAG = "MyAPP";

    private static MyApplication mApplication;
    private CityDB mCityDB;

    @Override
    public void onCreate() {
        super.onCreate();
        Log.d(TAG, "MyApplication->Oncreate");

        mApplication = this;
        mCityDB = openCityDB();
    }

    public static MyApplication getInstance(){
        return mApplication;
    }
}
```

```
private CityDB mCityDB;
```

```
mCityDB = openCityDB();
```

7.初始化城市信息列表



```
private List<City> mCityList;
```

```
initCityList();
```

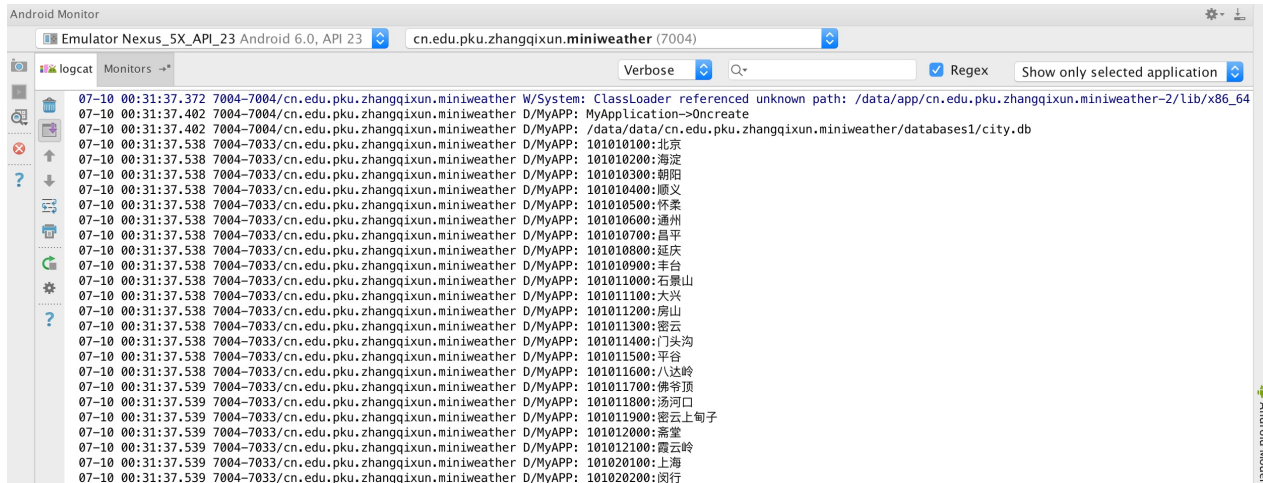
```
private void initCityList(){
    mCityList = new ArrayList<City>();
    new Thread(new Runnable() {
        @Override
        public void run() {
            // TODO Auto-generated method stub
            prepareCityList();
        }
    }).start();
}
```

```
private boolean prepareCityList() {
    mCityList = mCityDB.getAllCity();
    int i=0;
    for (City city : mCityList) {
        i++;
        String cityName = city.getCity();
        String cityCode = city.getNumber();
        Log.d(TAG,cityCode+":"+cityName);
    }
    Log.d(TAG,"i="+i);
    return true;
}
```

```
public List<City> getCityList() {
    return mCityList;
}
```

8.在程序运行时读取数据库信息

程序运行结果如下



```
07-10 00:31:37.372 7004-7004/cn.edu.pku.zhangqixun.miniweather W/System: ClassLoader referenced unknown path: /data/app/cn.edu.pku.zhangqixun.miniweather-2/Lib/x86_64
07-10 00:31:37.402 7004-7004/cn.edu.pku.zhangqixun.miniweather D/MyAPP: MyApplication->Oncreate
07-10 00:31:37.402 7004-7004/cn.edu.pku.zhangqixun.miniweather D/MyAPP: /data/data/cn.edu.pku.zhangqixun.miniweather/databases1/city.db
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010100:北京
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010200:海淀
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010300:朝阳
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010400:顺义
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010500:怀柔
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010600:通州
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010700:昌平
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010800:延庆
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101010900:丰台
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011000:石景山
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011100:大兴
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011200:房山
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011300:密云
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011400:门头沟
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011500:平谷
07-10 00:31:37.538 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011600:八达岭
07-10 00:31:37.539 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011700:佛爷顶
07-10 00:31:37.539 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011800:汤河口
07-10 00:31:37.539 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101011900:密云上甸子
07-10 00:31:37.539 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101012000:斋堂
07-10 00:31:37.539 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101012100:霞云岭
07-10 00:31:37.539 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101020100:上海
07-10 00:31:37.539 7004-7033/cn.edu.pku.zhangqixun.miniweather D/MyAPP: 101020200:闵行
```

将数据库里读取的数据信息已经存入到mCityList中。