实验六：SQLite数据库

设计数据库，其中创建商品表，保存商品的名称、价格和产地。查询数据时用ListView展示数据的名称和价格，点击某项商品时用Toast显示商品的产地。

界面上设计查询、增加、修改和删除按钮，并实现对数据库的相应操作。

package com.shf.app30\_sy6;  
  
import android.content.Context;  
import android.database.sqlite.SQLiteDatabase;  
import android.database.sqlite.SQLiteOpenHelper;  
import androidx.annotation.Nullable;  
  
public class MyHelper extends SQLiteOpenHelper *{* public MyHelper*(*@Nullable Context context, @Nullable String name, @Nullable SQLiteDatabase.CursorFactory factory, int version*) {* super*(*context, name, factory, version*)*;  
 *}* @Override  
 public void onCreate*(*SQLiteDatabase sqLiteDatabase*) {* sqLiteDatabase.execSQL*(*"create table shop(\_id INTEGER PRIMARY KEY AUTOINCREMENT,name VARCHAR(255),location VARCHAR(255))"*)*;  
 *}* @Override  
 public void onUpgrade*(*SQLiteDatabase sqLiteDatabase, int i, int i1*) {  
  
 }  
}*

*<?*xml version="1.0" encoding="utf-8"*?>  
<*androidx.constraintlayout.widget.ConstraintLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"*>  
  
 <*Button  
 android:onClick="press"  
 android:text="查询"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/select"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.227"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintVertical\_bias="0.089"*/>  
  
 <*Button  
 android:onClick="press"  
 android:text="增加"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/insert"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.7"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintVertical\_bias="0.089"*/>  
  
 <*Button  
 android:onClick="press"  
 android:text="修改"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/update"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.227"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintVertical\_bias="0.206"*/>  
  
 <*Button  
 android:onClick="press"  
 android:text="删除"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/delete"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.7"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintVertical\_bias="0.207"*/>  
  
 <*ListView  
 android:id="@+id/listView"  
 android:layout\_width="408dp"  
 android:layout\_height="423dp"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.494"  
 app:layout\_constraintVertical\_bias="0.822"*/>  
  
</*androidx.constraintlayout.widget.ConstraintLayout*>*

package com.shf.app30\_sy6;  
  
import android.app.Activity;  
import android.content.ContentValues;  
import android.database.Cursor;  
import android.database.sqlite.SQLiteDatabase;  
import android.view.View;  
import android.widget.AdapterView;  
import android.widget.ListView;  
import android.widget.SimpleCursorAdapter;  
import android.widget.Toast;  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
  
public class MainActivity extends AppCompatActivity *{* MyHelper helper = new MyHelper*(*MainActivity.this, "shf.db", null, 1*)*;  
 SQLiteDatabase db;  
 ListView lv;  
  
 @Override  
 protected void onCreate*(*Bundle savedInstanceState*) {* super.onCreate*(*savedInstanceState*)*;  
 setContentView*(*R.layout.*activity\_main)*;  
  
 db = helper.getWritableDatabase*()*;  
 lv=findViewById*(*R.id.*listView)*;  
 *}* public void press*(*View v*){* switch *(*v.getId*()){* case R.id.*select*:  
 Cursor c = db.query*(*"shop", null,null,null,null,null,null*)*;  
 System.*out*.println*(*c*)*;  
 SimpleCursorAdapter simpleCursorAdapter =  
 new SimpleCursorAdapter*(* this,  
 android.R.layout.*simple\_list\_item\_2*,  
 c,  
 new String*[]{*"name", "location"*}*,  
 new int*[]{*android.R.id.*text1*,android.R.id.*text2} )*;  
 lv.setAdapter*(*simpleCursorAdapter*)*;  
 lv.setOnItemClickListener*(*new AdapterView.OnItemClickListener*() {* @Override  
 public void onItemClick*(*AdapterView*<*?*>* adapterView, View view, int i, long l*) {* ListView listView = *(*ListView*)* adapterView;  
 Cursor cursor = *(*Cursor*)* listView.getItemAtPosition*(*i*)*;  
 String name = cursor.getString*(*cursor.getColumnIndex*(*"name"*))*;  
 Toast.*makeText(*getApplicationContext*()*,name,Toast.*LENGTH\_SHORT)*.show*()*;  
 *}  
 })*;  
 break;  
 case R.id.*insert*:  
 db.execSQL*(*"insert into shop(name,location) values(?,?)",new Object*[]{*"apple手机","美国"*})*;  
 db.execSQL*(*"insert into shop(name,location) values(?,?)",new Object*[]{*"华为手机","中国"*})*;  
 Toast.*makeText(*getApplicationContext*()*,"插入成功",Toast.*LENGTH\_SHORT)*.show*()*;  
 break;  
 case R.id.*update*:  
 db.execSQL*(*"update shop set location=? where name=?",new Object*[]{*"武汉","apple手机"*})*;  
 Toast.*makeText(*getApplicationContext*()*,"更新成功",Toast.*LENGTH\_SHORT)*.show*()*;  
 break;  
 case R.id.*delete*:  
 db.execSQL*(*"delete from shop where name=?",new Object*[]{*"apple手机"*})*;  
 Toast.*makeText(*getApplicationContext*()*,"删除成功",Toast.*LENGTH\_SHORT)*.show*()*;  
 break;  
 default:  
 return;  
 *}  
 }* @Override  
 protected void onStop*() {* db.close*()*;  
 super.onStop*()*;  
 *}  
}*



