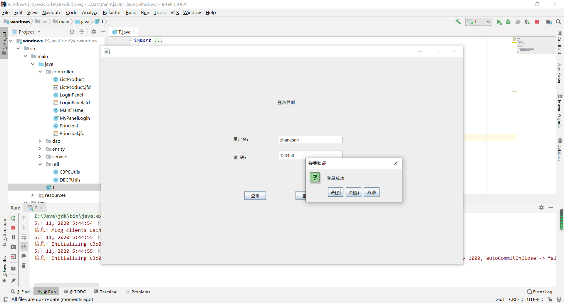
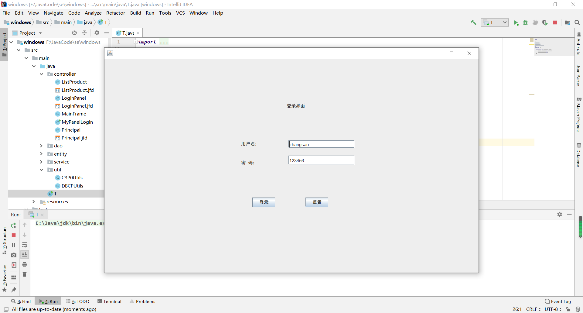
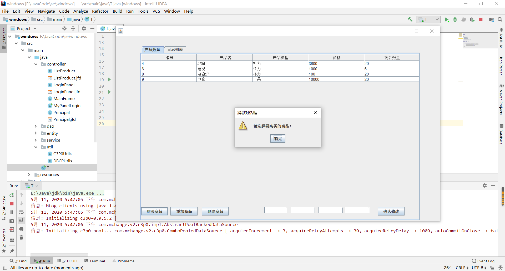
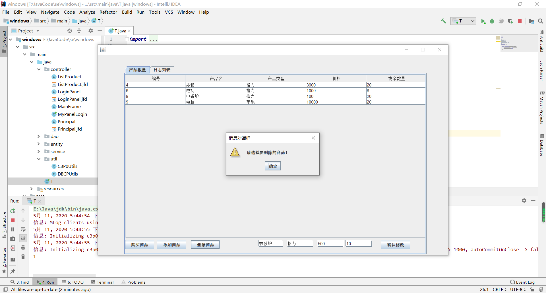
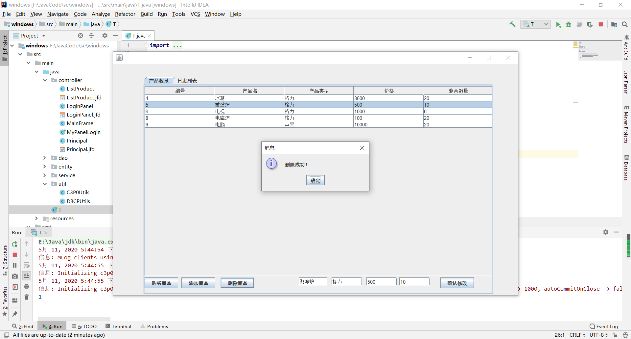
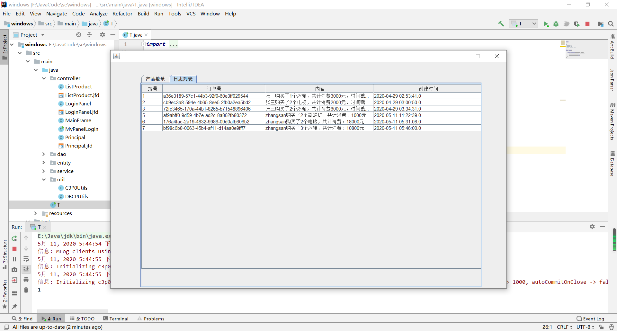
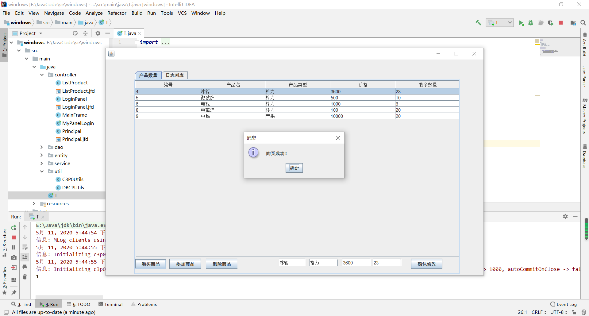
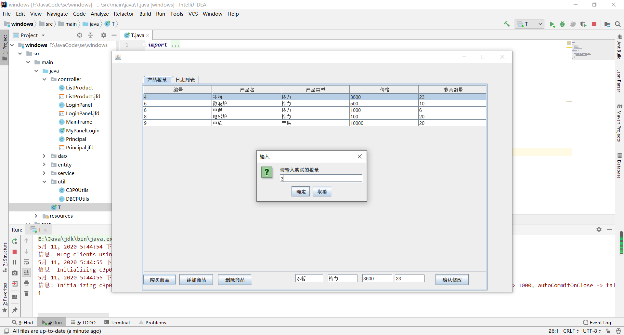
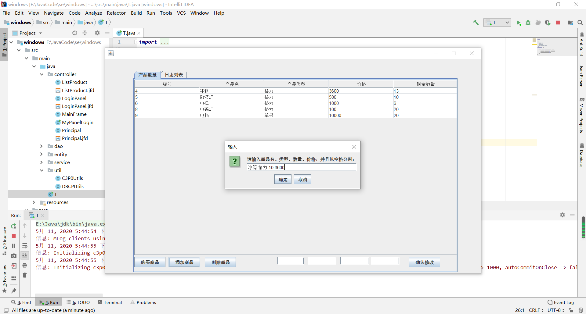
## 效果





## 实体类（javabean）

***package*** entity;  
  
***import*** java.text.SimpleDateFormat;  
***import*** java.util.Date;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 13:25  
 \*/****public class*** Order ***{  
  
 private*** Integer **id**;  
 ***private*** String **num**;  
 ***private*** String **message**;  
 ***private*** Date **createTime**;  
  
 ***public*** Integer getId***() {  
 return* id**;  
 ***}  
  
 public void*** setId***(***Integer id***) {  
 this***.**id** = id;  
 ***}  
  
 public*** String getNum***() {  
 return* num**;  
 ***}  
  
 public void*** setNum***(***String num***) {  
 this***.**num** = num;  
 ***}  
  
 public*** String getMessage***() {  
 return* message**;  
 ***}  
  
 public void*** setMessage***(***String message***) {  
 this***.**message** = message;  
 ***}  
  
 public*** Date getCreateTime***() {  
 return* createTime**;  
 ***}  
  
 public void*** setCreateTime***(***Date createTime***) {  
 this***.**createTime** = createTime;  
 ***}*** *@Override* ***public*** String toString***() {*** SimpleDateFormat simpleDateFormat = ***new*** SimpleDateFormat***(*"yyyy-mm-dd hh:MM:ss"*)***;  
 ***return* "订单编号："** + **id** + **" 订单号："** + **num** +  
 **" 操作信息："** + **message** + **" 创建时间："** + simpleDateFormat.format***(*createTime*)***;  
 ***}  
}***

***package*** entity;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 11:21  
 \*/****public class*** Product ***{  
  
 private*** Integer **id**;  
 ***private*** String **proName**;  
 ***private*** Integer **count**;  
 ***private*** Integer **price**;  
 ***private*** String **pType**;  
  
 ***public*** Integer getId***() {  
 return* id**;  
 ***}  
  
 public void*** setId***(***Integer id***) {  
 this***.**id** = id;  
 ***}  
  
 public*** String getProName***() {  
 return* proName**;  
 ***}  
  
 public void*** setProName***(***String proName***) {  
 this***.**proName** = proName;  
 ***}  
  
 public*** Integer getCount***() {  
 return* count**;  
 ***}  
  
 public void*** setCount***(***Integer count***) {  
 this***.**count** = count;  
 ***}  
  
 public*** Integer getPrice***() {  
 return* price**;  
 ***}  
  
 public void*** setPrice***(***Integer price***) {  
 this***.**price** = price;  
 ***}  
  
 public*** String getpType***() {  
 return* pType**;  
 ***}  
  
 public void*** setpType***(***String pType***) {  
 this***.**pType** = pType;  
 ***}*** *@Override* ***public*** String toString***() {  
 return* "产品编号："** + **id** + **" 产品名："** + **proName** + **" 产品价格："** +  
 **price** + **" 产品类型："** + **pType** + **" 产品数量："** + **count**;  
 ***}  
}***

***package*** entity;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@date*** *2020/5/10 17:27  
 \*/****public class*** User ***{  
  
 private*** Integer **id**;  
 ***private*** String **username**;  
 ***private*** String **password**;  
  
 ***public*** Integer getId***() {  
 return* id**;  
 ***}  
  
 public void*** setId***(***Integer id***) {  
 this***.**id** = id;  
 ***}  
  
 public*** String getUsername***() {  
 return* username**;  
 ***}  
  
 public void*** setUsername***(***String username***) {  
 this***.**username** = username;  
 ***}  
  
 public*** String getPassword***() {  
 return* password**;  
 ***}  
  
 public void*** setPassword***(***String password***) {  
 this***.**password** = password;  
 ***}*** *@Override* ***public*** String toString***() {  
 return* "User{"** +  
 **"id="** + **id** +  
 **", username='"** + **username** + **'\''** +  
 **", password='"** + **password** + **'\''** +  
 **'}'**;  
 ***}  
}***

## 持久层（DAO）

### 接口

***package*** dao;  
  
***import*** entity.Order;  
  
***import*** java.util.Date;  
***import*** java.util.List;  
  
*/\*\*  
 \* 订单持久层  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 13:35  
 \*/****public interface*** OrderDao ***{*** List***<***Order***>*** selectAll***() throws*** Exception;  
  
 Order selectOneByInfo***(***String info***) throws*** Exception;  
  
 ***int*** insertRelation***(int*** pId, ***int*** oId***) throws*** Exception;  
  
 */\*\*  
 \* 添加订单  
 \** ***@param message*** *订单信息  
 \** ***@return*** *\** ***@throws*** *Exception  
 \*/* ***int*** add***(***String message, Date date***) throws*** Exception;  
  
 */\*\*  
 \* 根据产品名查询订单  
 \** ***@param name*** *产品名  
 \** ***@return*** *\*/* List***<***Order***>*** selectOrderByProductName***(***String name***) throws*** Exception;  
***}***

***package*** dao;  
  
***import*** entity.Product;  
  
***import*** java.util.List;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 11:26  
 \*/****public interface*** ProductDao ***{  
  
 int*** updateProductById***(int*** id, String name, String type, ***int*** price, ***int*** count***)***;  
  
 ***int*** deleteProductById***(int*** id***)***;  
  
 ***int*** selectCountById***(int*** id***)***;  
  
 ***int*** updateCountById***(int*** id, ***int*** count***)***;  
  
 */\*\*  
 \* 查询所有  
 \** ***@return*** *产品集合  
 \** ***@throws*** *Exception  
 \*/* List***<***Product***>*** selectAll***() throws*** Exception;  
  
 */\*\*  
 \* 根据产品名、产品类型、产品价格查询产品  
 \** ***@param pName*** *产品名  
 \** ***@param pType*** *产品类型  
 \** ***@param price*** *产品价格  
 \** ***@return*** *产品实体类  
 \** ***@throws*** *Exception  
 \*/* Product selectProduct***(***String pName, String pType, Integer price***) throws*** Exception;  
  
 */\*\*  
 \* 添加产品  
 \** ***@param proName*** *产品名  
 \** ***@param count*** *数量  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *影响行数  
 \** ***@throws*** *Exception  
 \*/* ***int*** addProduct***(***String proName, Integer count, Integer price, String pType***) throws*** Exception;  
  
 */\*\*  
 \* 更新产品数量  
 \** ***@param proName*** *产品名  
 \** ***@param count*** *要购买的数量  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *影响的行数  
 \** ***@throws*** *Exception  
 \*/* ***int*** update***(***String proName, Integer count, Integer price, String pType***) throws*** Exception;  
  
 */\*\*  
 \* 删除产品  
 \** ***@param proName*** *产品名  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *影响行数  
 \** ***@throws*** *Exception  
 \*/* ***int*** delete***(***String proName, Integer price, String pType***) throws*** Exception;  
  
 */\*\*  
 \* 添加商品  
 \** ***@param proName*** *商品名  
 \** ***@param count*** *数量  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *影响行数  
 \** ***@throws*** *Exception  
 \*/* ***int*** addProduct***(***String proName, ***int*** count, ***int*** price, String pType***) throws*** Exception;  
  
 ***int*** addCount***(***String proName, ***int*** count, ***int*** price, String pType***) throws*** Exception;  
  
 ***int*** insert***(***String proName, ***int*** count, ***int*** price, String pType***) throws*** Exception;  
***}***

***package*** dao;  
  
***import*** entity.User;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@date*** *2020/5/10 17:23  
 \*/****public interface*** UserDao ***{*** User selectUserByUsername***(***String username, String password***) throws*** Exception;  
***}***

### 实现类

***package*** dao.impl;  
  
***import*** dao.OrderDao;  
***import*** entity.Order;  
***import*** org.apache.commons.dbutils.QueryRunner;  
***import*** org.apache.commons.dbutils.handlers.BeanHandler;  
***import*** org.apache.commons.dbutils.handlers.BeanListHandler;  
***import*** util.C3P0Utils;  
  
***import*** java.sql.Timestamp;  
***import*** java.text.SimpleDateFormat;  
***import*** java.util.Date;  
***import*** java.util.List;  
***import*** java.util.UUID;  
  
*/\*\*  
 \* 订单持久层  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 13:35  
 \*/****public class*** OrderDaoImpl ***implements*** OrderDao ***{*** *@Override* ***public*** List***<***Order***>*** selectAll***() throws*** Exception ***{*** String sql = **"SELECT \* FROM t\_order"**;  
 QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 ***return (***List***<***Order***>)*** queryRunner.query***(***sql, ***new*** BeanListHandler***(***Order.***class))***;  
 ***}*** *@Override* ***public*** Order selectOneByInfo***(***String info***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"select \* from t\_order where message = ?"**;  
 Object***[]*** params = ***{***info***}***;  
 ***return (***Order***)*** queryRunner.query***(***sql, ***new*** BeanHandler***(***Order.***class)***, params***)***;  
 ***}*** *@Override* ***public int*** insertRelation***(int*** pId, ***int*** oId***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"insert into t\_relation(pId, oId) values(?, ?)"**;  
 Object***[]*** params = ***{***pId, oId***}***;  
 ***return*** queryRunner.update***(***sql, params***)***;  
 ***}*** */\*\*  
 \* 创建订单  
 \** ***@param message*** *订单信息  
 \** ***@return*** *\** ***@throws*** *Exception  
 \*/  
 @Override* ***public int*** add***(***String message, Date date***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"insert into t\_order(num, message, createTime) values(?, ?, ?)"**;  
 SimpleDateFormat simpleDateFormat = ***new*** SimpleDateFormat***(*"yyyy-MM-dd hh:mm:ss"*)***;  
 Object***[]*** params = ***{***UUID.*randomUUID****()***.toString***()***, message, Timestamp.*valueOf****(***simpleDateFormat.format***(***date***))}***;  
 ***return*** queryRunner.update***(***sql, params***)***;  
 ***}*** */\*\*  
 \* 根据产品名查询订单  
 \** ***@param name*** *产品名  
 \** ***@return*** *\*/  
 @Override* ***public*** List***<***Order***>*** selectOrderByProductName***(***String name***) throws*** Exception ***{*** String sql = **"SELECT o.\* FROM t\_product p INNER JOIN t\_relation r ON p.id = r.pId "** +  
 **"INNER JOIN t\_order o ON r.oId = o.id WHERE p.proName=?"**;  
 QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 ***return (***List***<***Order***>)*** queryRunner.query***(***sql, ***new*** BeanListHandler***(***Order.***class)***, ***new*** Object***[]{***name***})***;  
 ***}  
}***

***package*** dao.impl;  
  
***import*** dao.ProductDao;  
***import*** entity.Product;  
***import*** org.apache.commons.dbutils.QueryRunner;  
***import*** org.apache.commons.dbutils.handlers.BeanHandler;  
***import*** org.apache.commons.dbutils.handlers.BeanListHandler;  
***import*** util.C3P0Utils;  
  
***import*** java.sql.SQLException;  
***import*** java.util.List;  
  
*/\*\*  
 \* 产品持久层  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 11:31  
 \*/****public class*** ProductDaoImpl ***implements*** ProductDao ***{*** */\*\*  
 \* 根据id修改商品  
 \** ***@param id*** *\** ***@param name*** *\** ***@param type*** *\** ***@param price*** *\** ***@param count*** *\** ***@return*** *\*/  
 @Override* ***public int*** updateProductById***(int*** id, String name, String type, ***int*** price, ***int*** count***) {*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"update t\_product set proName = ?, pType = ?, price = ?, count = ? where id = ?"**;  
 Object***[]*** params = ***{***name, type, price, count, id***}***;  
 ***try {  
 return*** queryRunner.update***(***sql, params***)***;  
 ***} catch (***SQLException e***) {*** e.printStackTrace***()***;  
 ***return*** -1;  
 ***}  
 }*** */\*\*  
 \* 根据id删除商品  
 \** ***@param id*** *\** ***@return*** *\*/  
 @Override* ***public int*** deleteProductById***(int*** id***) {*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"delete from t\_product where id = ?"**;  
 Object***[]*** params = ***{***id***}***;  
 ***try {  
 return*** queryRunner.update***(***sql, params***)***;  
 ***} catch (***SQLException e***) {*** e.printStackTrace***()***;  
 ***return*** -1;  
 ***}  
 }*** */\*\*  
 \* 根据id查询商品数量  
 \** ***@param id*** *\** ***@return*** *\** ***@throws*** *Exception  
 \*/  
 @Override* ***public int*** selectCountById***(int*** id***) {*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"select \* from t\_product where id = ?"**;  
 Object***[]*** params = ***{***id***}***;  
 Product product = ***null***;  
 ***try {*** product = ***(***Product***)*** queryRunner.query***(***sql, ***new*** BeanHandler***(***Product.***class)***, params***)***;  
 ***} catch (***SQLException e***) {*** e.printStackTrace***()***;  
 ***}  
 assert*** product != ***null***;  
 ***return*** product.getCount***()***;  
 ***}*** */\*\*  
 \* 根据id更新商品数量  
 \** ***@param id*** *\** ***@param count*** *\** ***@return*** *\** ***@throws*** *Exception  
 \*/  
 @Override* ***public int*** updateCountById***(int*** id, ***int*** count***) {*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"update t\_product set count = count - ? where id = ?"**;  
 Object***[]*** params = ***{***count, id***}***;  
 ***try {  
 return*** queryRunner.update***(***sql, params***)***;  
 ***} catch (***SQLException e***) {*** e.printStackTrace***()***;  
 ***return*** -1;  
 ***}  
 }*** */\*\*  
 \* 查询全部  
 \** ***@return*** *商品集合  
 \** ***@throws*** *Exception  
 \*/  
 @Override* ***public*** List***<***Product***>*** selectAll***() throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"select \* from t\_product"**;  
 List***<***Product***>*** productList = ***(***List***<***Product***>)*** queryRunner.query***(***sql, ***new*** BeanListHandler***(***Product.***class))***;  
 ***return*** productList;  
 ***}*** */\*\*  
 \* 查询单个  
 \** ***@param pName*** *产品名  
 \** ***@param pType*** *产品类型  
 \** ***@param price*** *产品价格  
 \** ***@return*** *商品  
 \** ***@throws*** *Exception  
 \*/  
 @Override* ***public*** Product selectProduct***(***String pName, String pType, Integer price***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"select \* from t\_product where proName = ? and pType = ? and price = ?"**;  
 Object***[]*** params = ***{***pName, pType, price***}***;  
 ***return (***Product***)*** queryRunner.query***(***sql, ***new*** BeanHandler***(***Product.***class)***, params***)***;  
 ***}*** */\*\*  
 \* 添加产品  
 \** ***@param proName*** *产品名  
 \** ***@param count*** *数量  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *影响的行数  
 \** ***@throws*** *Exception  
 \*/  
 @Override* ***public int*** addProduct***(***String proName, Integer count, Integer price, String pType***) throws*** Exception ***{*** String sql = **"insert into t\_product(proName, count, price, pType) values(?, ?, ?, ?)"**;  
 QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 Object***[]*** params = ***{***proName, count, price, pType***}***;  
 ***return*** queryRunner.update***(***sql, params***)***;  
 ***}*** */\*\*  
 \* 购买产品  
 \** ***@param proName*** *产品名  
 \** ***@param count*** *要购买的数量  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *影响的行数  
 \** ***@throws*** *Exception  
 \*/  
 @Override* ***public int*** update***(***String proName, Integer count, Integer price, String pType***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"update t\_product set count = count - ? where proName = ? and price = ? and pType = ?"**;  
 Object***[]*** params = ***{***count, proName, price, pType***}***;  
 ***return*** queryRunner.update***(***sql, params***)***;  
 ***}*** */\*\*  
 \* 删除产品  
 \** ***@param proName*** *产品名  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *影响行数  
 \** ***@throws*** *Exception  
 \*/  
 @Override* ***public int*** delete***(***String proName, Integer price, String pType***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"delete from t\_product where proName = ? and price = ? and pType = ?"**;  
 Object***[]*** params = ***{***proName, price, pType***}***;  
 ***return*** queryRunner.update***(***sql, params***)***;  
 ***}*** */\*\*  
 \* 添加商品  
 \** ***@param proName*** *商品名  
 \** ***@param count*** *数量  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *\** ***@throws*** *Exception  
 \*/  
 @Override* ***public int*** addProduct***(***String proName, ***int*** count, ***int*** price, String pType***) throws*** Exception ***{*** String sql = **"insert into t\_product(proName, count, price, pType) values(?, ?, ?, ?)"**;  
 QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 Object***[]*** params = ***{***proName, count, price, pType***}***;  
 ***return*** queryRunner.update***(***sql, params***)***;  
 ***}*** *@Override* ***public int*** addCount***(***String proName, ***int*** count, ***int*** price, String pType***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"update t\_product set count = count + ? where proName = ? and price = ? and pType = ?"**;  
 Object***[]*** params = ***{***count, proName, price, pType***}***;  
 ***return*** queryRunner.update***(***sql, params***)***;  
 ***}*** *@Override* ***public int*** insert***(***String proName, ***int*** count, ***int*** price, String pType***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"insert into t\_product(proName, count, price, pType) values(?, ?, ?, ?)"**;  
 Object***[]*** params = ***{***proName, count, price, pType***}***;  
 ***return*** queryRunner.update***(***sql, params***)***;  
 ***}  
}***

***package*** dao.impl;  
  
***import*** dao.UserDao;  
***import*** entity.User;  
***import*** org.apache.commons.dbutils.QueryRunner;  
***import*** org.apache.commons.dbutils.handlers.BeanHandler;  
***import*** util.C3P0Utils;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@date*** *2020/5/10 17:28  
 \*/****public class*** UserDaoImpl ***implements*** UserDao ***{*** *@Override* ***public*** User selectUserByUsername***(***String username, String password***) throws*** Exception ***{*** String sql = **"select \* from t\_user where username = ? and password = ?"**;  
 QueryRunner queryRunner = ***new*** QueryRunner(C3P0Utils.getDataSource());  
 ***return*** queryRunner.query(sql, ***new*** BeanHandler<User>(User.***class***), username, password);  
 }  
}

## 业务层（service）

### 接口

***package*** service;  
  
***import*** entity.Order;  
  
***import*** java.util.Date;  
***import*** java.util.List;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 13:41  
 \*/****public interface*** OrderService ***{*** List***<***Order***>*** selectAll***() throws*** Exception;  
  
 Order selectOneByInfo***(***String info***) throws*** Exception;  
  
 ***int*** insertRelation***(int*** pId, ***int*** oId***) throws*** Exception;  
  
 ***int*** add***(***String message, Date date***) throws*** Exception;  
  
 List***<***Order***>*** selectOrderByProductName***(***String name***) throws*** Exception;  
***}***

***package*** service;  
  
***import*** entity.Product;  
  
***import*** java.util.List;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 11:44  
 \*/****public interface*** ProductService ***{  
  
 int*** updateProductById***(int*** id, String name, String type, ***int*** price, ***int*** count***)***;  
  
 ***int*** deleteProductById***(int*** id***)***;  
  
 ***int*** selectCountById***(int*** id***)***;  
  
 ***int*** updateCountById***(int*** id, ***int*** count***)***;  
  
 ***int*** addProduct***(***String proName, ***int*** count, ***int*** price, String pType***) throws*** Exception;  
  
 */\*\*  
 \* 查询所有  
 \** ***@return*** *产品集合  
 \** ***@throws*** *Exception  
 \*/* List***<***Product***>*** selectAll***() throws*** Exception;  
  
 */\*\*  
 \* 根据产品名、产品类型、产品价格查询产品  
 \** ***@param pName*** *产品名  
 \** ***@param pType*** *产品类型  
 \** ***@param price*** *产品价格  
 \** ***@return*** *产品实体类  
 \** ***@throws*** *Exception  
 \*/* Product selectProduct***(***String pName, String pType, Integer price***) throws*** Exception;  
  
 */\*\*  
 \* 购买商品  
 \** ***@param proName*** *商品名  
 \** ***@param count*** *数量  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *影响行数  
 \** ***@throws*** *Exception  
 \*/* ***int*** purchaseProduce***(***String proName, Integer count, Integer price, String pType***) throws*** Exception;  
***}***

***package*** service;  
  
***import*** entity.User;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@date*** *2020/5/10 17:33  
 \*/****public interface*** UserService ***{*** User selectUserByUsername***(***String username, String password***) throws*** Exception;  
***}***

### 实现类

***package*** service.impl;  
  
***import*** dao.OrderDao;  
***import*** dao.impl.OrderDaoImpl;  
***import*** entity.Order;  
***import*** service.OrderService;  
  
***import*** java.util.Date;  
***import*** java.util.List;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 13:42  
 \*/****public class*** OrderServiceImpl ***implements*** OrderService ***{  
  
 private*** OrderDao **orderDao** = ***new*** OrderDaoImpl***()***;  
  
 *@Override* ***public*** List***<***Order***>*** selectAll***() throws*** Exception ***{  
 return* orderDao**.selectAll***()***;  
 ***}*** *@Override* ***public*** Order selectOneByInfo***(***String info***) throws*** Exception ***{  
 return* orderDao**.selectOneByInfo***(***info***)***;  
 ***}*** *@Override* ***public int*** insertRelation***(int*** pId, ***int*** oId***) throws*** Exception ***{  
 return* orderDao**.insertRelation***(***pId, oId***)***;  
 ***}*** *@Override* ***public int*** add***(***String message, Date date***) throws*** Exception ***{  
 return* orderDao**.add***(***message, date***)***;  
 ***}*** *@Override* ***public*** List***<***Order***>*** selectOrderByProductName***(***String name***) throws*** Exception ***{  
 return* orderDao**.selectOrderByProductName***(***name***)***;  
 ***}  
}***

***package*** service.impl;  
  
***import*** dao.OrderDao;  
***import*** dao.ProductDao;  
***import*** dao.impl.OrderDaoImpl;  
***import*** dao.impl.ProductDaoImpl;  
***import*** entity.Product;  
***import*** org.apache.commons.dbutils.QueryRunner;  
***import*** org.apache.commons.dbutils.handlers.BeanHandler;  
***import*** org.apache.commons.dbutils.handlers.ScalarHandler;  
***import*** service.ProductService;  
***import*** util.C3P0Utils;  
  
***import*** java.util.List;  
  
*/\*\*  
 \* 产品业务层  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/4/29 11:45  
 \*/****public class*** ProductServiceImpl ***implements*** ProductService ***{  
  
 private*** ProductDao **productDao** = ***new*** ProductDaoImpl***()***;  
 ***private*** OrderDao **orderDao** = ***new*** OrderDaoImpl***()***;  
  
 *@Override* ***public int*** updateProductById***(int*** id, String name, String type, ***int*** price, ***int*** count***) {  
 return* productDao**.updateProductById***(***id, name, type, price, count***)***;  
 ***}*** *@Override* ***public int*** deleteProductById***(int*** id***) {  
 return* productDao**.deleteProductById***(***id***)***;  
 ***}*** *@Override* ***public int*** selectCountById***(int*** id***) {  
 return* productDao**.selectCountById***(***id***)***;  
 ***}*** */\*\*  
 \* 购买商品  
 \** ***@param id*** *\** ***@param count*** *\** ***@return*** *\** ***@throws*** *Exception  
 \*/  
 @Override* ***public int*** updateCountById***(int*** id, ***int*** count***) {  
 int*** remainCount = **productDao**.selectCountById***(***id***)***;  
 ***int*** row = -1;  
 ***if (***remainCount >= count***) {*** *//正常购买* row = **productDao**.updateCountById***(***id, count***)***;  
 ***} else {*** *//库存不足，购买失败* ***throw new*** RuntimeException***(*"库存不足，购买失败！"*)***;  
 ***}  
 return*** row;  
 ***}*** *@Override* ***public int*** addProduct***(***String proName, ***int*** count, ***int*** price, String pType***) throws*** Exception ***{  
 if (***isExist***(***proName, price, pType***)*** > 0***) {*** *//存在，直接添加数量* ***return* productDao**.addCount***(***proName, count, price, pType***)***;  
 ***} else {*** *//不存在，insert* ***return* productDao**.insert***(***proName, count, price, pType***)***;  
 ***}  
 }*** *@Override* ***public*** List***<***Product***>*** selectAll***() throws*** Exception ***{  
 return* productDao**.selectAll***()***;  
 ***}*** *@Override* ***public*** Product selectProduct***(***String pName, String pType, Integer price***) throws*** Exception ***{  
 return* productDao**.selectProduct***(***pName, pType, price***)***;  
 ***}*** *@Override* ***public int*** purchaseProduce***(***String proName, Integer count, Integer price, String pType***) throws*** Exception ***{  
 int*** result = isSufficient***(***proName, price, pType***)***;  
 ***int*** r1 = 0;  
 ***if (***result >= count***) {*** r1 = **productDao**.update***(***proName, count, price, pType***)***;  
 ***}  
 return*** r1;  
 ***}  
  
 private long*** isExist***(***String proName, ***int*** price, String pType***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"select count(\*) from t\_product where proName=? and price=? and pType=?"**;  
 Object***[]*** params = ***{***proName, price, pType***}***;  
 ***return (long)*** queryRunner.query***(***sql, ***new*** ScalarHandler***()***, params***)***;  
 ***}*** */\*\*  
 \* 返回产品的存货数量  
 \** ***@param proName*** *产品名  
 \** ***@param price*** *价格  
 \** ***@param pType*** *类型  
 \** ***@return*** *剩余的数量  
 \** ***@throws*** *Exception  
 \*/* ***private int*** isSufficient***(***String proName, Integer price, String pType***) throws*** Exception ***{*** QueryRunner queryRunner = ***new*** QueryRunner***(***C3P0Utils.*getDataSource****())***;  
 String sql = **"select \* from t\_product where proName = ? and price = ? and pType = ?"**;  
 Object***[]*** params = ***{***proName, price, pType***}***;  
 Product product = ***(***Product***)*** queryRunner.query***(***sql, ***new*** BeanHandler***(***Product.***class)***, params***)***;  
 ***if (***product != ***null) {  
 return*** product.getCount***()***;  
 ***}  
 return*** 0;  
 ***}  
}***

***package*** service.impl;  
  
***import*** dao.UserDao;  
***import*** dao.impl.UserDaoImpl;  
***import*** entity.User;  
***import*** service.UserService;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@date*** *2020/5/10 17:33  
 \*/****public class*** UserServiceImpl ***implements*** UserService ***{  
  
 private*** UserDao **userDao** = ***new*** UserDaoImpl***()***;  
  
 *@Override* ***public*** User selectUserByUsername***(***String username, String password***) throws*** Exception ***{  
 return* userDao**.selectUserByUsername***(***username, password***)***;  
 ***}  
}***

## 视图控制层（controller）

### 主体框架

*/\*  
 \* Created by JFormDesigner on Sun May 10 17:47:35 CST 2020  
 \*/****package*** controller;  
  
***import*** java.awt.\*;  
***import*** javax.swing.\*;  
  
*/\*\*  
 \** ***@author*** *1  
 \*/****public class*** Principal ***extends*** JFrame ***{  
 public*** Principal***() {****// initComponents();* add***(new*** LoginPanel***(this))***;  
  
 setSize***(***1000, 600***)***;  
 setResizable***(false)***;  
 setDefaultCloseOperation***(***WindowConstants.***EXIT\_ON\_CLOSE)***;  
 setVisible***(true)***;  
 ***}  
  
 private void*** initComponents***() {*** *// JFormDesigner - Component initialization - DO NOT MODIFY //GEN-BEGIN:initComponents  
  
 //======== this ========* Container contentPane = getContentPane***()***;  
 contentPane.setLayout***(null)***;  
  
 ***{*** *// compute preferred size* Dimension preferredSize = ***new*** Dimension***()***;  
 ***for(int*** i = 0; i < contentPane.getComponentCount***()***; i++***) {*** Rectangle bounds = contentPane.getComponent***(***i***)***.getBounds***()***;  
 preferredSize.**width** = Math.*max****(***bounds.**x** + bounds.**width**, preferredSize.**width*)***;  
 preferredSize.**height** = Math.*max****(***bounds.**y** + bounds.**height**, preferredSize.**height*)***;  
 ***}*** Insets insets = contentPane.getInsets***()***;  
 preferredSize.**width** += insets.**right**;  
 preferredSize.**height** += insets.**bottom**;  
 contentPane.setMinimumSize***(***preferredSize***)***;  
 contentPane.setPreferredSize***(***preferredSize***)***;  
 ***}*** pack***()***;  
 setLocationRelativeTo***(***getOwner***())***;  
 *// JFormDesigner - End of component initialization //GEN-END:initComponents* ***}*** *// JFormDesigner - Variables declaration - DO NOT MODIFY //GEN-BEGIN:variables  
 // JFormDesigner - End of variables declaration //GEN-END:variables****}***

### 登录panel

*/\*  
 \* Created by JFormDesigner on Sun May 10 17:15:01 CST 2020  
 \*/****package*** controller;  
  
***import*** entity.User;  
***import*** service.UserService;  
***import*** service.impl.UserServiceImpl;  
  
***import*** java.awt.\*;  
***import*** java.awt.event.\*;  
***import*** javax.swing.\*;  
  
*/\*\*  
 \** ***@author*** *1  
 \*/****public class*** LoginPanel ***extends*** JPanel ***{  
  
 private*** UserService **userService** = ***new*** UserServiceImpl***()***;  
 ***private*** Principal **principal**;  
 ***private static*** User *loginUser*;  
  
 ***public*** LoginPanel***(***Principal principal***) {*** initComponents***()***;  
 ***this***.**principal** = principal;  
 ***}  
  
 public static*** User getLoginUser***() {  
 return*** *loginUser*;  
 ***}*** */\*\*  
 \* 登录验证  
 \** ***@param e*** *\*/* ***private void*** loginActionPerformed***(***ActionEvent e***) {  
 if (*""**.equals***(*textField1**.getText***()***.trim***())*** || **""**.equals***(*textField2**.getText***()***.trim***())) {*** JOptionPane.*showConfirmDialog****(null***, **"请填写完整信息"**, **"登录验证"**,  
 JOptionPane.***YES\_NO\_CANCEL\_OPTION)***;  
 ***return***;  
 ***}  
 try {*** User user = **userService**.selectUserByUsername***(*textField1**.getText***()***.trim***()***, **textField2**.getText***()***.trim***())***;  
 ***if (***user != ***null) {*** *loginUser* = user;  
 JOptionPane.*showConfirmDialog****(null***, **"登录成功"**, **"登录验证"**,  
 JOptionPane.***YES\_NO\_CANCEL\_OPTION)***;  
 *//切换页面* ***this***.setVisible***(false)***;  
 **principal**.add***(new*** ListProduct***())***;  
  
 ***} else {*** JOptionPane.*showConfirmDialog****(null***, **"密码错误或者该用户不存在！"**, **"登录验证"**,  
 JOptionPane.***YES\_NO\_CANCEL\_OPTION)***;  
 ***}  
  
 } catch (***Exception e1***) {*** e1.printStackTrace***()***;  
 ***}  
 }*** */\*\*  
 \* 重置  
 \** ***@param e*** *\*/* ***private void*** resetActionPerformed***(***ActionEvent e***) {  
 this***.**textField1**.setText***(*""*)***;  
 ***this***.**textField2**.setText***(*""*)***;  
 ***}  
  
 private void*** initComponents***() {*** *// JFormDesigner - Component initialization - DO NOT MODIFY //GEN-BEGIN:initComponents* **label1** = ***new*** JLabel***()***;  
 **label2** = ***new*** JLabel***()***;  
 **label3** = ***new*** JLabel***()***;  
 **textField1** = ***new*** JTextField***()***;  
 **textField2** = ***new*** JTextField***()***;  
 **button1** = ***new*** JButton***()***;  
 **button2** = ***new*** JButton***()***;  
  
 *//======== this ========* setLayout***(null)***;  
  
 *//---- label1 ----* **label1**.setText***(*"\u7528\u6237\u540d\uff1a"*)***;  
 add***(*label1*)***;  
 **label1**.setBounds***(new*** Rectangle***(new*** Point***(***360, 215***)***, **label1**.getPreferredSize***()))***;  
  
 *//---- label2 ----* **label2**.setText***(*"\u5bc6 \u7801\uff1a"*)***;  
 add***(*label2*)***;  
 **label2**.setBounds***(new*** Rectangle***(new*** Point***(***360, 265***)***, **label2**.getPreferredSize***()))***;  
  
 *//---- label3 ----* **label3**.setText***(*"\u767b\u5f55\u754c\u9762"*)***;  
 add***(*label3*)***;  
 **label3**.setBounds***(new*** Rectangle***(new*** Point***(***480, 115***)***, **label3**.getPreferredSize***()))***;  
  
 *//---- textField1 ----* **textField1**.setText***(*"zhangsan"*)***;  
 add***(*textField1*)***;  
 **textField1**.setBounds***(***485, 215, 175, **textField1**.getPreferredSize***()***.**height*)***;  
  
 *//---- textField2 ----* **textField2**.setText***(*"123456"*)***;  
 add***(*textField2*)***;  
 **textField2**.setBounds***(***485, 255, 175, 24***)***;  
  
 *//---- button1 ----* **button1**.setText***(*"\u767b\u5f55"*)***;  
 **button1**.addActionListener***(***e -> loginActionPerformed***(***e***))***;  
 add***(*button1*)***;  
 **button1**.setBounds***(***390, 365, 60, 25***)***;  
  
 *//---- button2 ----* **button2**.setText***(*"\u91cd\u7f6e"*)***;  
 **button2**.addActionListener***(***e -> resetActionPerformed***(***e***))***;  
 add***(*button2*)***;  
 **button2**.setBounds***(***530, 365, 60, 24***)***;  
  
 ***{*** *// compute preferred size* Dimension preferredSize = ***new*** Dimension***()***;  
 ***for(int*** i = 0; i < getComponentCount***()***; i++***) {*** Rectangle bounds = getComponent***(***i***)***.getBounds***()***;  
 preferredSize.**width** = Math.*max****(***bounds.**x** + bounds.**width**, preferredSize.**width*)***;  
 preferredSize.**height** = Math.*max****(***bounds.**y** + bounds.**height**, preferredSize.**height*)***;  
 ***}*** Insets insets = getInsets***()***;  
 preferredSize.**width** += insets.**right**;  
 preferredSize.**height** += insets.**bottom**;  
 setMinimumSize***(***preferredSize***)***;  
 setPreferredSize***(***preferredSize***)***;  
 ***}*** *// JFormDesigner - End of component initialization //GEN-END:initComponents* ***}*** *// JFormDesigner - Variables declaration - DO NOT MODIFY //GEN-BEGIN:variables* ***private*** JLabel **label1**;  
 ***private*** JLabel **label2**;  
 ***private*** JLabel **label3**;  
 ***private*** JTextField **textField1**;  
 ***private*** JTextField **textField2**;  
 ***private*** JButton **button1**;  
 ***private*** JButton **button2**;  
 *// JFormDesigner - End of variables declaration //GEN-END:variables****}***

### 主页展示

*/\*  
 \* Created by JFormDesigner on Sun May 10 17:57:02 CST 2020  
 \*/****package*** controller;  
  
***import*** entity.Order;  
***import*** entity.Product;  
***import*** entity.User;  
***import*** service.OrderService;  
***import*** service.ProductService;  
***import*** service.impl.OrderServiceImpl;  
***import*** service.impl.ProductServiceImpl;  
  
***import*** java.awt.\*;  
***import*** java.awt.event.\*;  
***import*** java.util.Date;  
***import*** java.util.List;  
***import*** javax.swing.\*;  
***import*** javax.swing.event.ListSelectionEvent;  
***import*** javax.swing.event.ListSelectionListener;  
***import*** javax.swing.table.DefaultTableModel;  
***import*** javax.swing.table.TableColumn;  
  
*/\*\*  
 \** ***@author*** *1  
 \*/****public class*** ListProduct ***extends*** JPanel ***{  
  
 private*** DefaultTableModel **defaultTableModel**;  
 ***private*** DefaultTableModel **orderInfoTable**;  
 ***private*** ProductService **productService** = ***new*** ProductServiceImpl***()***;  
 ***private*** OrderService **orderService** = ***new*** OrderServiceImpl***()***;  
 ***private int* number** = -1;  
  
 ***public*** ListProduct***() {*** initComponents***()***;  
  
 freshProductInfo***()***;  
 init***()***;  
 ***}  
  
 private void*** init***() {* table1**.getSelectionModel***()***.addListSelectionListener***(new*** ListSelectionListener***() {*** *@Override* ***public void*** valueChanged***(***ListSelectionEvent e***) {  
 int*** index = **table1**.getSelectedRow***()***;  
 ***if (***index != -1***) {* textField1**.setText***((***String***)* table1**.getValueAt***(***index, 1***))***;  
 **textField2**.setText***((***String***)* table1**.getValueAt***(***index, 2***))***;  
 **textField3**.setText***(*table1**.getValueAt***(***index, 3***)***.toString***())***;  
 **textField4**.setText***(*table1**.getValueAt***(***index, 4***)***.toString***())***;  
 **number** = ***(int)* table1**.getValueAt***(***index, 0***)***;  
 ***}  
 }  
 })***;  
 ***}  
  
 private void*** freshOrderInfo***() {*** List***<***Order***>*** orders = ***null***;  
 ***try {*** orders = **orderService**.selectAll***()***;  
 ***} catch (***Exception e***) {*** e.printStackTrace***()***;  
 ***}*** Object***[][]*** orderList = ***new*** Object***[***orders.size***()][***4***]***;  
 ***for (int*** i = 0; i < orders.size***()***; i++***) {*** Order order = orders.get***(***i***)***;  
 orderList***[***i***][***0***]*** = order.getId***()***;  
 orderList***[***i***][***1***]*** = order.getNum***()***;  
 orderList***[***i***][***2***]*** = order.getMessage***()***;  
 orderList***[***i***][***3***]*** = order.getCreateTime***()***;  
 ***}* orderInfoTable** = ***new*** DefaultTableModel***(***orderList, ***new*** String***[]{*"编号"**, **"订单号"**, **"内容"**, **"创建时间"*})***;  
 **table2**.setModel***(*orderInfoTable*)***;  
 **table2**.getColumnModel***()***.getColumn***(***0***)***.setPreferredWidth***(***10***)***;  
 ***}*** *//刷新数据* ***private void*** freshProductInfo***() {*** List***<***Product***>*** products = ***null***;  
 ***try {*** products = **productService**.selectAll***()***;  
 ***} catch (***Exception e***) {*** e.printStackTrace***()***;  
 ***}*** Object***[][]*** productList = ***new*** Object***[***products.size***()][***5***]***;  
  
 ***for (int*** i = 0; i < products.size***()***; i++***) {*** Product product = products.get***(***i***)***;  
 productList***[***i***][***0***]*** = product.getId***()***;  
 productList***[***i***][***1***]*** = product.getProName***()***;  
 productList***[***i***][***2***]*** = product.getpType***()***;  
 productList***[***i***][***3***]*** = product.getPrice***()***;  
 productList***[***i***][***4***]*** = product.getCount***()***;  
 ***}* defaultTableModel** = ***new*** DefaultTableModel***(***productList, ***new*** String***[]{*"编号"**, **"产品名"**, **"产品类型"**, **"价格"**, **"剩余数量"*})***;  
  
 **table1**.setModel***(*defaultTableModel*)***;  
  
 freshOrderInfo***()***;  
 ***}*** */\*\*  
 \* 添加商品  
 \** ***@param e*** *\*/* ***private void*** addProductActionPerformed***(***ActionEvent e***) {*** String str = JOptionPane.*showInputDialog****(this***, **"请输入商品名、类型、数量、价格，并且以空格分割："*)***;  
 ***if (***str == ***null) {  
 return***;  
 ***}*** *//空格分割* String***[]*** info = str.split***(*" "*)***;  
 *//如果分割的不符合要求，则提示非法* ***if (***info.**length** != 4***) {*** JOptionPane.*showMessageDialog****(this***, **"请按照正确的格式输入！"**, **"消息对话框"**, JOptionPane.***WARNING\_MESSAGE)***;  
 ***return***;  
 ***}  
  
 try {  
 int*** row = **productService**.addProduct***(***info***[***0***]***, Integer.*parseInt****(***info***[***2***])***, Integer.*parseInt****(***info***[***3***])***, info***[***1***])***;  
 System.***out***.println***(***row***)***;  
 freshProductInfo***()***;  
 ***} catch (***Exception e1***) {*** JOptionPane.*showMessageDialog****(this***, **"格式非法，添加失败！"**, **"消息对话框"**, JOptionPane.***WARNING\_MESSAGE)***;  
 ***}  
 }*** */\*\*  
 \* 购买商品  
 \** ***@param e*** *\*/* ***private void*** purchaseActionPerformed***(***ActionEvent e***) {*** *//获取选择的行* ***int*** index = **table1**.getSelectedRow***()***;  
 ***if (***index == -1***) {*** JOptionPane.*showMessageDialog****(this***, **"请选择要购买的商品！"**, **"消息对话框"**, JOptionPane.***WARNING\_MESSAGE)***;  
 ***return***;  
 ***}  
 try {  
 int*** id = ***(int)* table1**.getValueAt***(***index, 0***)***;  
 String data = JOptionPane.*showInputDialog****(this***, **"请输入购买的数量"*)***;  
 *//没有输入任何信息* ***if (*""**.equals***(***data***)*** || data == ***null) {  
 return***;  
 ***}*** *//尝试转换为数字* ***int*** count = Integer.*parseInt****(***data***)***;  
 ***int*** row = **productService**.updateCountById***(***id, count***)***;  
 ***if (***row == -1***) {*** JOptionPane.*showMessageDialog****(this***, **"库存不足！"**, **"消息对话框"**, JOptionPane.***WARNING\_MESSAGE)***;  
 ***} else {*** JOptionPane.*showMessageDialog****(null***,**"购买成功！"*)***;  
 *//记录订单* ***try {  
 int*** price = ***(int)* table1**.getValueAt***(***index, 3***)***;  
 **orderService**.add***(***LoginPanel.*getLoginUser****()***.getUsername***()*** + **"购买了"** + count + **"个"** + **table1**.getValueAt***(***index, 1***)***.toString***()*** + **"，共计消费："** + price \* count + **"元"**, ***new*** Date***())***;  
  
 freshProductInfo***()***;  
 ***} catch (***Exception e1***) {*** System.***out***.println***(***e1.getMessage***())***;  
 ***}  
 }  
  
 } catch (***NumberFormatException e1***) {*** JOptionPane.*showMessageDialog****(this***, **"格式非法！"**, **"消息对话框"**, JOptionPane.***WARNING\_MESSAGE)***;  
 ***}  
 }*** */\*\*  
 \* 删除所有商品  
 \** ***@param e*** *\*/* ***private void*** deleteProductActionPerformed***(***ActionEvent e***) {  
 int*** index = **table1**.getSelectedRow***()***;  
 ***if (***index == -1***) {*** JOptionPane.*showMessageDialog****(this***, **"请选择要删除的商品！"**, **"消息对话框"**, JOptionPane.***WARNING\_MESSAGE)***;  
 ***return***;  
 ***}  
 int*** id = ***(int)* table1**.getValueAt***(***index, 0***)***;  
 *//已经选中了商品，获取商品id，根据id删除商品* **productService**.deleteProductById***(***id***)***;  
 JOptionPane.*showMessageDialog****(null***,**"删除成功！"*)***;  
 freshProductInfo***()***;  
 ***}*** */\*\*  
 \* 修改商品信息  
 \** ***@param e*** *\*/* ***private void*** updateActionPerformed***(***ActionEvent e***) {  
 if (*number** == -1***) {  
 return***;  
 ***}*** String name = **textField1**.getText***()***;  
 String type = **textField2**.getText***()***;  
 String price = **textField3**.getText***()***;  
 String count = **textField4**.getText***()***;  
 ***if (***name.length***()*** == 0 || type.length***()*** == 0 || price.length***()*** == 0 || count.length***()*** == 0***) {*** JOptionPane.*showMessageDialog****(this***, **"信息不能有空！"**, **"消息对话框"**, JOptionPane.***WARNING\_MESSAGE)***;  
 ***return***;  
 ***}*** *//根据id进行修改* **productService**.updateProductById***(*number**, name, type, Integer.*valueOf****(***price***)***, Integer.*valueOf****(***count***))***;  
 JOptionPane.*showMessageDialog****(null***,**"修改成功！"*)***;  
 freshProductInfo***()***;  
 ***}  
  
 private void*** initComponents***() {*** *// JFormDesigner - Component initialization - DO NOT MODIFY //GEN-BEGIN:initComponents* **tabbedPane1** = ***new*** JTabbedPane***()***;  
 **panel1** = ***new*** JPanel***()***;  
 **scrollPane1** = ***new*** JScrollPane***()***;  
 **table1** = ***new*** JTable***()***;  
 **button3** = ***new*** JButton***()***;  
 **button4** = ***new*** JButton***()***;  
 **button1** = ***new*** JButton***()***;  
 **textField1** = ***new*** JTextField***()***;  
 **textField2** = ***new*** JTextField***()***;  
 **textField3** = ***new*** JTextField***()***;  
 **textField4** = ***new*** JTextField***()***;  
 **button5** = ***new*** JButton***()***;  
 **panel2** = ***new*** JPanel***()***;  
 **scrollPane2** = ***new*** JScrollPane***()***;  
 **table2** = ***new*** JTable***()***;  
  
 *//======== this ========* setLayout***(null)***;  
  
 *//======== tabbedPane1 ========* ***{*** *//======== panel1 ========* ***{* panel1**.setLayout***(null)***;  
  
 *//======== scrollPane1 ========* ***{* scrollPane1**.setViewportView***(*table1*)***;  
 ***}* panel1**.add***(*scrollPane1*)***;  
 **scrollPane1**.setBounds***(***0, 0, 850, 460***)***;  
  
 *//---- button3 ----* **button3**.setText***(*"\u8d2d\u4e70\u5546\u54c1"*)***;  
 **button3**.addActionListener***(***e -> purchaseActionPerformed***(***e***))***;  
 **panel1**.add***(*button3*)***;  
 **button3**.setBounds***(new*** Rectangle***(new*** Point***(***0, 465***)***, **button3**.getPreferredSize***()))***;  
  
 *//---- button4 ----* **button4**.setText***(*"\u6dfb\u52a0\u5546\u54c1"*)***;  
 **button4**.addActionListener***(***e -> addProductActionPerformed***(***e***))***;  
 **panel1**.add***(*button4*)***;  
 **button4**.setBounds***(new*** Rectangle***(new*** Point***(***90, 465***)***, **button4**.getPreferredSize***()))***;  
  
 *//---- button1 ----* **button1**.setText***(*"\u5220\u9664\u5546\u54c1"*)***;  
 **button1**.addActionListener***(***e -> deleteProductActionPerformed***(***e***))***;  
 **panel1**.add***(*button1*)***;  
 **button1**.setBounds***(new*** Rectangle***(new*** Point***(***185, 465***)***, **button1**.getPreferredSize***()))***;  
 **panel1**.add***(*textField1*)***;  
 **textField1**.setBounds***(***375, 465, 70, **textField1**.getPreferredSize***()***.**height*)***;  
 **panel1**.add***(*textField2*)***;  
 **textField2**.setBounds***(***455, 465, 75, **textField2**.getPreferredSize***()***.**height*)***;  
 **panel1**.add***(*textField3*)***;  
 **textField3**.setBounds***(***540, 465, 75, **textField3**.getPreferredSize***()***.**height*)***;  
 **panel1**.add***(*textField4*)***;  
 **textField4**.setBounds***(***620, 465, 75, **textField4**.getPreferredSize***()***.**height*)***;  
  
 *//---- button5 ----* **button5**.setText***(*"\u786e\u8ba4\u4fee\u6539"*)***;  
 **button5**.addActionListener***(***e -> updateActionPerformed***(***e***))***;  
 **panel1**.add***(*button5*)***;  
 **button5**.setBounds***(new*** Rectangle***(new*** Point***(***720, 465***)***, **button5**.getPreferredSize***()))***;  
  
 ***{*** *// compute preferred size* Dimension preferredSize = ***new*** Dimension***()***;  
 ***for(int*** i = 0; i < **panel1**.getComponentCount***()***; i++***) {*** Rectangle bounds = **panel1**.getComponent***(***i***)***.getBounds***()***;  
 preferredSize.**width** = Math.*max****(***bounds.**x** + bounds.**width**, preferredSize.**width*)***;  
 preferredSize.**height** = Math.*max****(***bounds.**y** + bounds.**height**, preferredSize.**height*)***;  
 ***}*** Insets insets = **panel1**.getInsets***()***;  
 preferredSize.**width** += insets.**right**;  
 preferredSize.**height** += insets.**bottom**;  
 **panel1**.setMinimumSize***(***preferredSize***)***;  
 **panel1**.setPreferredSize***(***preferredSize***)***;  
 ***}  
 }* tabbedPane1**.addTab***(*"\u4ea7\u54c1\u6570\u91cf"**, **panel1*)***;  
  
 *//======== panel2 ========* ***{* panel2**.setLayout***(null)***;  
  
 *//======== scrollPane2 ========* ***{* scrollPane2**.setViewportView***(*table2*)***;  
 ***}* panel2**.add***(*scrollPane2*)***;  
 **scrollPane2**.setBounds***(***0, 0, 850, 460***)***;  
  
 ***{*** *// compute preferred size* Dimension preferredSize = ***new*** Dimension***()***;  
 ***for(int*** i = 0; i < **panel2**.getComponentCount***()***; i++***) {*** Rectangle bounds = **panel2**.getComponent***(***i***)***.getBounds***()***;  
 preferredSize.**width** = Math.*max****(***bounds.**x** + bounds.**width**, preferredSize.**width*)***;  
 preferredSize.**height** = Math.*max****(***bounds.**y** + bounds.**height**, preferredSize.**height*)***;  
 ***}*** Insets insets = **panel2**.getInsets***()***;  
 preferredSize.**width** += insets.**right**;  
 preferredSize.**height** += insets.**bottom**;  
 **panel2**.setMinimumSize***(***preferredSize***)***;  
 **panel2**.setPreferredSize***(***preferredSize***)***;  
 ***}  
 }* tabbedPane1**.addTab***(*"\u65e5\u5fd7\u5217\u8868"**, **panel2*)***;  
 ***}*** add***(*tabbedPane1*)***;  
 **tabbedPane1**.setBounds***(***75, 30, 850, 530***)***;  
  
 ***{*** *// compute preferred size* Dimension preferredSize = ***new*** Dimension***()***;  
 ***for(int*** i = 0; i < getComponentCount***()***; i++***) {*** Rectangle bounds = getComponent***(***i***)***.getBounds***()***;  
 preferredSize.**width** = Math.*max****(***bounds.**x** + bounds.**width**, preferredSize.**width*)***;  
 preferredSize.**height** = Math.*max****(***bounds.**y** + bounds.**height**, preferredSize.**height*)***;  
 ***}*** Insets insets = getInsets***()***;  
 preferredSize.**width** += insets.**right**;  
 preferredSize.**height** += insets.**bottom**;  
 setMinimumSize***(***preferredSize***)***;  
 setPreferredSize***(***preferredSize***)***;  
 ***}*** *// JFormDesigner - End of component initialization //GEN-END:initComponents* ***}*** *// JFormDesigner - Variables declaration - DO NOT MODIFY //GEN-BEGIN:variables* ***private*** JTabbedPane **tabbedPane1**;  
 ***private*** JPanel **panel1**;  
 ***private*** JScrollPane **scrollPane1**;  
 ***private*** JTable **table1**;  
 ***private*** JButton **button3**;  
 ***private*** JButton **button4**;  
 ***private*** JButton **button1**;  
 ***private*** JTextField **textField1**;  
 ***private*** JTextField **textField2**;  
 ***private*** JTextField **textField3**;  
 ***private*** JTextField **textField4**;  
 ***private*** JButton **button5**;  
 ***private*** JPanel **panel2**;  
 ***private*** JScrollPane **scrollPane2**;  
 ***private*** JTable **table2**;  
 *// JFormDesigner - End of variables declaration //GEN-END:variables****}***

## 工具类

***package*** util;  
  
***import*** com.mchange.v2.c3p0.ComboPooledDataSource;  
  
***import*** javax.sql.DataSource;  
***import*** java.sql.Connection;  
***import*** java.sql.SQLException;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/5/10 15:24  
 \*/****public class*** C3P0Utils ***{  
  
 private static*** ComboPooledDataSource *dataSource* = ***new*** ComboPooledDataSource***(*"swingdb"*)***;  
  
 ***public static*** DataSource getDataSource***() {  
 return*** *dataSource*;  
 ***}  
  
 public static*** Connection getConnection***() {  
 try {  
 return*** *dataSource*.getConnection***()***;  
 ***} catch (***SQLException e***) {  
 throw new*** RuntimeException***(***e***)***;  
 ***}  
 }  
}***

***package*** util;  
  
***import*** org.apache.commons.dbcp2.BasicDataSourceFactory;  
  
***import*** javax.sql.DataSource;  
***import*** java.io.InputStream;  
***import*** java.sql.Connection;  
***import*** java.sql.SQLException;  
***import*** java.util.Properties;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/5/10 15:22  
 \*/****public class*** DBCPUtils ***{  
  
 private static*** DataSource *dataSource*;  
  
 ***static {  
 try {*** *//加载properties文件* InputStream is = DBCPUtils.***class***.getClassLoader***()***.getResourceAsStream***(*"dbcp.properties"*)***;  
 Properties props = ***new*** Properties***()***;  
 props.load***(***is***)***;  
 *//创建数据源  
 dataSource* = BasicDataSourceFactory.*createDataSource****(***props***)***;  
 ***} catch (***Exception e***) {  
 throw new*** RuntimeException***(***e***)***;  
 ***}  
 }  
  
 public static*** DataSource getDataSource***() {  
 return*** *dataSource*;  
 ***}  
  
 public static*** Connection getConnection***() {  
 try {  
 return*** *dataSource*.getConnection***()***;  
 ***} catch (***SQLException e***) {  
 throw new*** RuntimeException***(***e***)***;  
 ***}  
 }  
}***

## 配置文件

***<?*xml version="1.0" encoding="UTF-8" *?>  
<*c3p0-config*>****<!-- c3p0连接池的配置信息-->* ***<*default-config*>  
 <*property name="driverClass"*>***com.mysql.jdbc.Driver***</*property*>  
 <*property name="jdbcUrl"*>***jdbc:mysql://localhost:3306/temp***</*property*>  
 <*property name="user"*>***root***</*property*>  
 <*property name="password"*>***2243756824***</*property*>  
 <*property name="initialPoolSize"*>***5***</*property*>  
 <*property name="maxPoolSize"*>***20***</*property*>  
 </*default-config*>  
  
 <*named-config name="rkc"*>  
 <*property name="driverClass"*>***com.mysql.jdbc.Driver***</*property*>  
 <*property name="jdbcUrl"*>***jdbc:mysql://localhost:3306/temp***</*property*>  
 <*property name="user"*>***root***</*property*>  
 <*property name="password"*>***2243756824***</*property*>  
 </*named-config*>  
  
 <*named-config name="swingdb"*>  
 <*property name="driverClass"*>***com.mysql.jdbc.Driver***</*property*>  
 <*property name="jdbcUrl"*>***jdbc:mysql://localhost:3306/temp***</*property*>  
 <*property name="user"*>***root***</*property*>  
 <*property name="password"*>***2243756824***</*property*>  
 </*named-config*>  
  
  
</*c3p0-config*>***

**url**=**jdbc:mysql://localhost:3306/temp  
user**=**root  
password**=**2243756824  
driverClass**=**com.mysql.jdbc.Driver**

## 启动类

***import*** controller.Principal;  
***import*** entity.Order;  
***import*** org.apache.commons.dbutils.QueryRunner;  
***import*** org.apache.commons.dbutils.handlers.BeanListHandler;  
***import*** org.junit.*Test*;  
***import*** util.C3P0Utils;  
***import*** util.DBCPUtils;  
  
***import*** javax.swing.\*;  
***import*** java.io.InputStream;  
***import*** java.util.List;  
***import*** java.util.Properties;  
  
*/\*\*  
 \** ***@author*** *冉堃赤  
 \** ***@version*** *1.0  
 \** ***@date*** *2020/5/10 15:15  
 \*/****public class*** T ***{  
  
 public static void*** main***(***String***[]*** args***) {*** Principal principal = ***new*** Principal***()***;  
 principal.setVisible***(true)***;  
 ***}  
}***