

# Shopping Cart Software Application

## Brief Introduction

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(This document just briefly introduces the shopping cart application, not normative.)

### 1. Description:

This small application is a desktop software. On the main frame, it displays categories and items which can be selected and viewed by users. And users choose the items which they want to buy and input the numbers of items. Then add the items into shopping cart and the shopping cart will display the items which chose by the users.

### 2. Environment:

**Operating System:** Windows 7

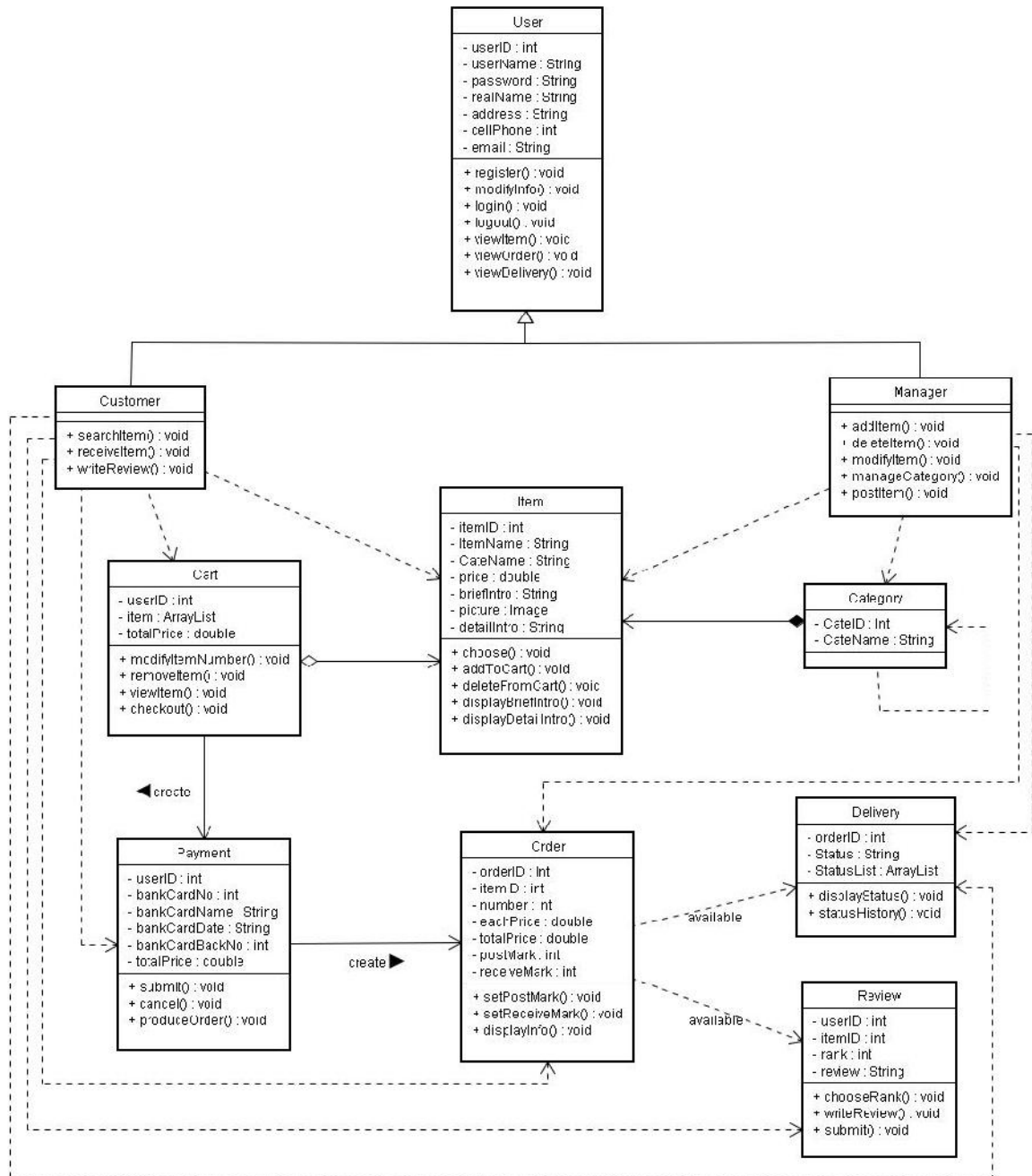
**Development Software:** Eclipse (EE) + Jigloo

**Database:** Oracle 11g Express

### 3. Class Diagram:

Shopping system is a big system which contains many modules. This small application only focuses on shopping cart which needs to connect with database and operate on the database, like read and display, input and write.

The whole shopping system Class Diagram Design:



## 4. Database:

### (1) Tables:

This application contains three tables: CATEGORY, ITEM, LINEITEM.

#### CATEGORY:

COLUMN_NAME	DATA_TYPE	NULLABLE
CATEID	NUMBER(3,0)	No
CATENAME	VARCHAR2(30 BYTE)	Yes
CATEDESC	VARCHAR2(100 BYTE)	Yes

## ITEM

COLUMN_NAME	DATA_TYPE	NULLABLE
ITEMID	NUMBER(9,0)	No
CATEID	NUMBER(3,0)	Yes
ITEMNAME	VARCHAR2(50 BYTE)	Yes
ITEMDESC	VARCHAR2(1000 BYTE)	Yes
ITEMPRICE	NUMBER(9,2)	Yes

## LINEITEM

COLUMN_NAME	DATA_TYPE	NULLABLE
LINEITEMID	NUMBER(15,0)	No
ITEMID	NUMBER(9,0)	Yes
ORDERID	NUMBER(20,0)	Yes
CARTID	NUMBER(9,0)	Yes
QUNTITY	NUMBER(5,0)	Yes
UNITPRICE	NUMBER(9,2)	Yes

### (2) Data:

Originally, the CATEGORY and ITEM tables already have data.

### CATEGORY DATA:

CATEID	CATENAME	CATEDESC
1	Fruits	All fruits
2	Furnitures	All furnitures
3	Cellphones	New cellphones

### ITEM DATA:

ITEMID	CATEID	ITEMNAME	ITEMDESC	ITEMPRICE
1	1	Apple	Red big apple.	1.55
2	1	Banana	Yellow sweet banana.	0.65
3	1	Pear	Green small pear.	1.29
4	2	Chair	Pink lovely chair.	30
5	2	Desk	Blue square desk.	15.99
6	2	Bed	White princess bed.	289
7	3	Iphone	Black generation 5s.	645
8	3	Sansun	White huge.	588
9	3	Nokia	Purple music phone.	350

### (3) Database Connection:

```
public class DBConnection {  
  
    private static Connection con;
```

```

public static Connection getInstance(){

    if(DBConnection.con==null){
        try {
            Class.forName("oracle.jdbc.driver.OracleDriver");
            String url = "jdbc:oracle:thin:@localhost:1521:XE";
            DBConnection.con = DriverManager
                .getConnection(url, "ESTORE", "yuyouji");
        } catch (SQLException e) {

            System.out.println("Oops! Should not be here.");
            e.printStackTrace();
        } catch (ClassNotFoundException e) {

            e.printStackTrace();
        }
    }

    return DBConnection.con;

}

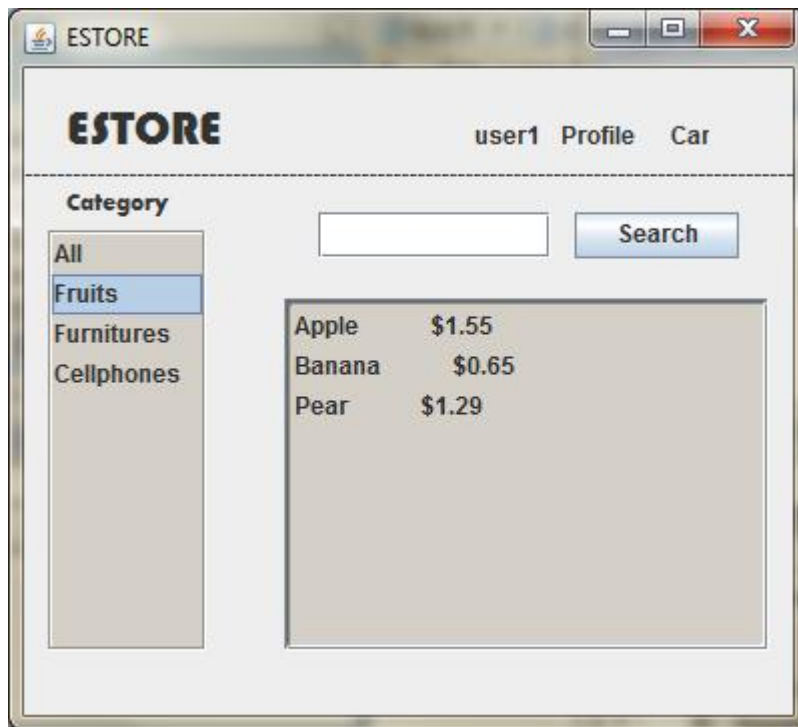
```

## 5. Result:

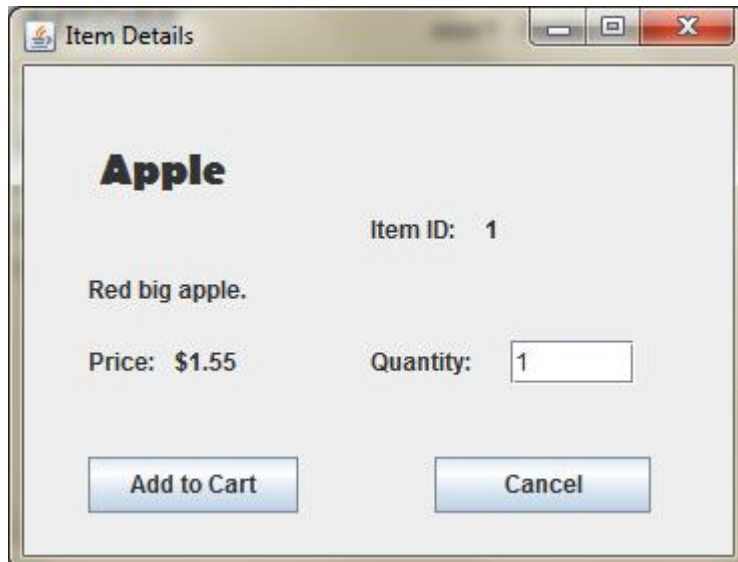
(1) Main Frame:

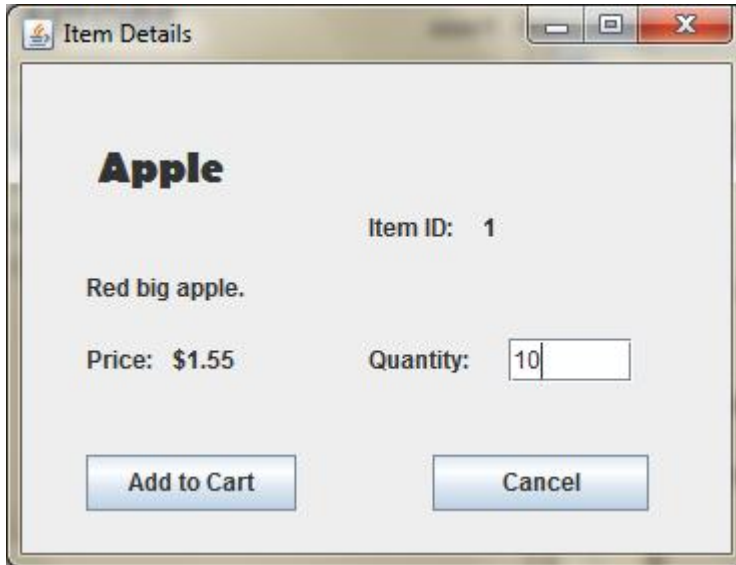


(2) If select one category, it will display the items which only belong to this selected category. For example, choose Fruits, and only display apple, banana and pear.



(3) Double click item, a pop-up window appears. It shows the details of this item which contains item name, item ID, item description, item unit price and a textfield to let the user input the quantity of the item.





Item Details

**Apple**

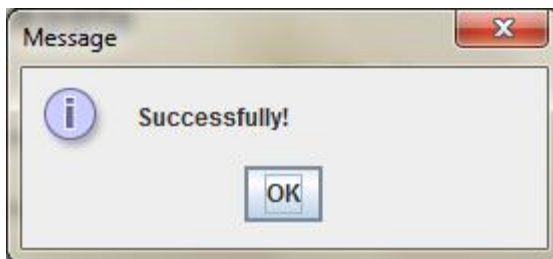
Item ID: 1

Red big apple.


Price: \$1.55      Quantity:

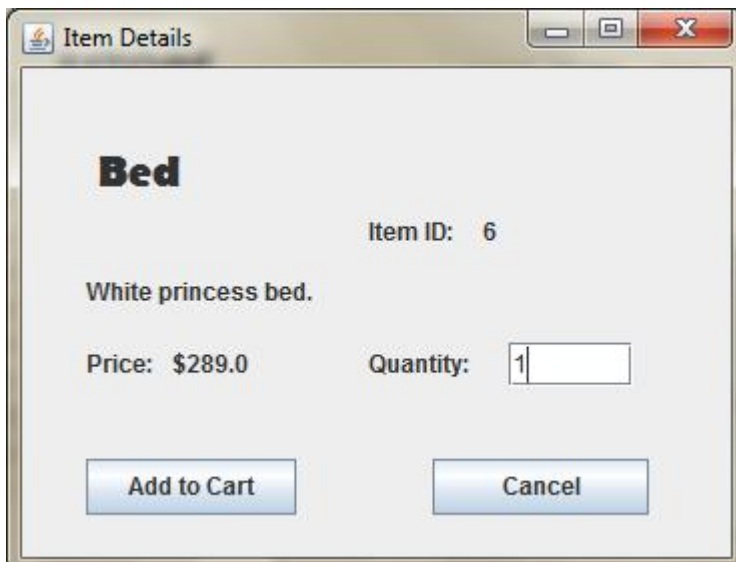
(4) After finished, press the “Add to Cart” button to add the item into your shopping cart. In database, this information will be stored in LINEITEM table.



Message

 Successfully!

(5) Add another item.



Item Details

**Bed**

Item ID: 6

White princess bed.

Price: \$289.0      Quantity:

(6) Check the shopping cart, you will find the items you have selected.

Shopping Cart

Shopping Cart

CHOOSE	ITEMID	ITEMNA...	QUANTI...	PRICE
	1	Apple	10	1.55
	6	Bed	1	289

Total Price: 304.5

Check Out

Cancel