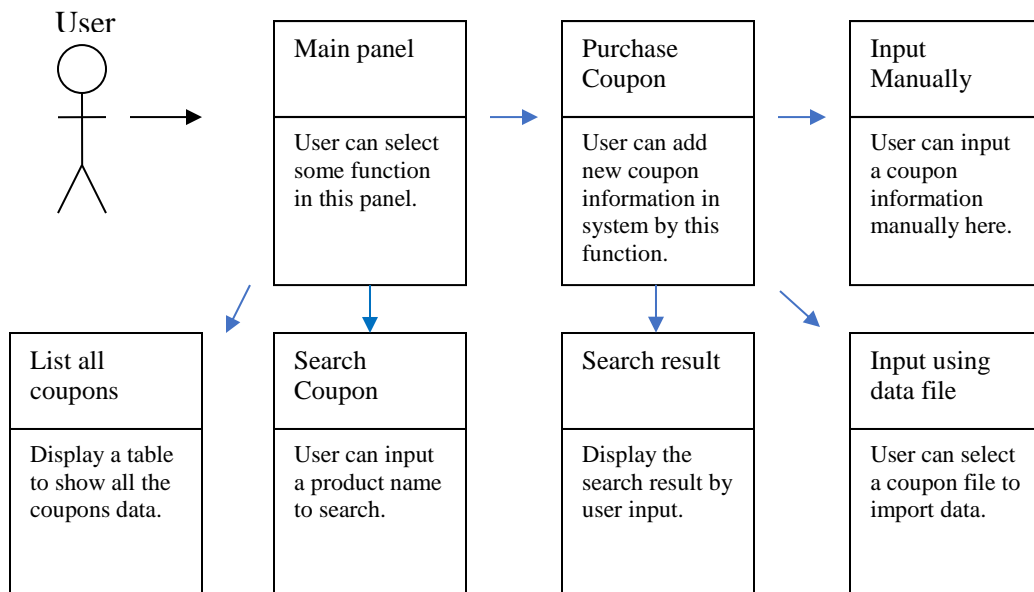


User Operation Document

Introduction

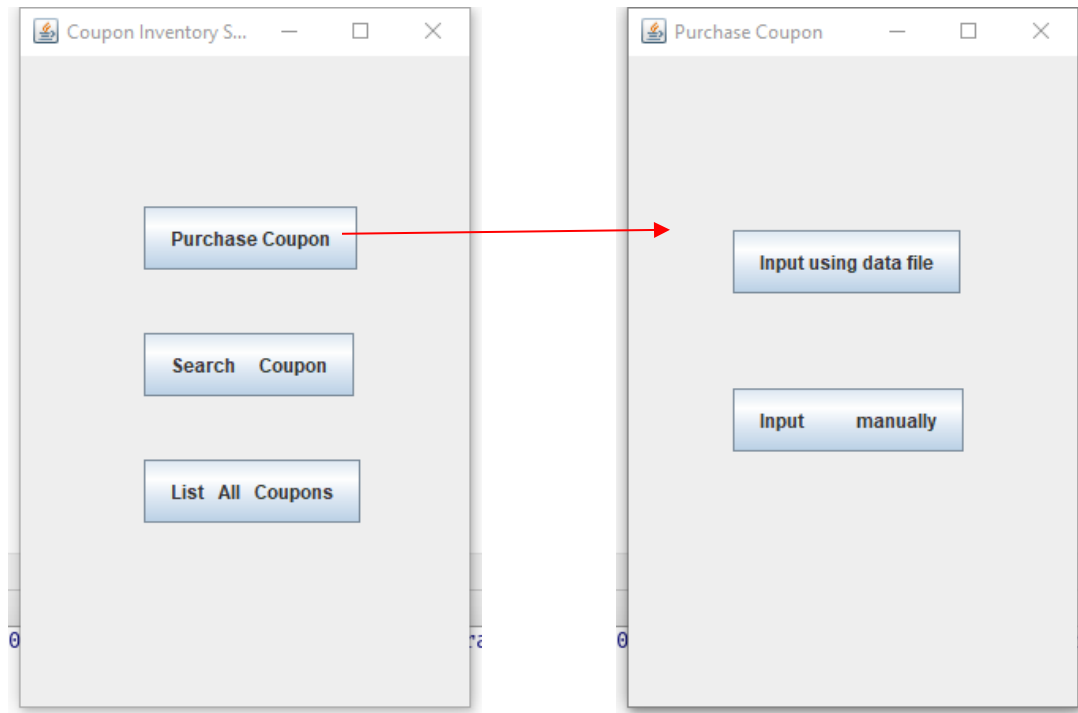
This document introduces the operation method for Coupon Inventory System. The Coupon Inventory System build by java with IntelliJ IDEA, it can be running in the java runtime environment 8, maybe another version is also comparable. It aimed to save many coupon data. User can add coupon data to this system, and it is easy to look up a specific coupon information or list all the coupon data.

Flow Chart:



Main panel

User can open the program using CouponInventorySystem.java. There are three choices in the main panel.

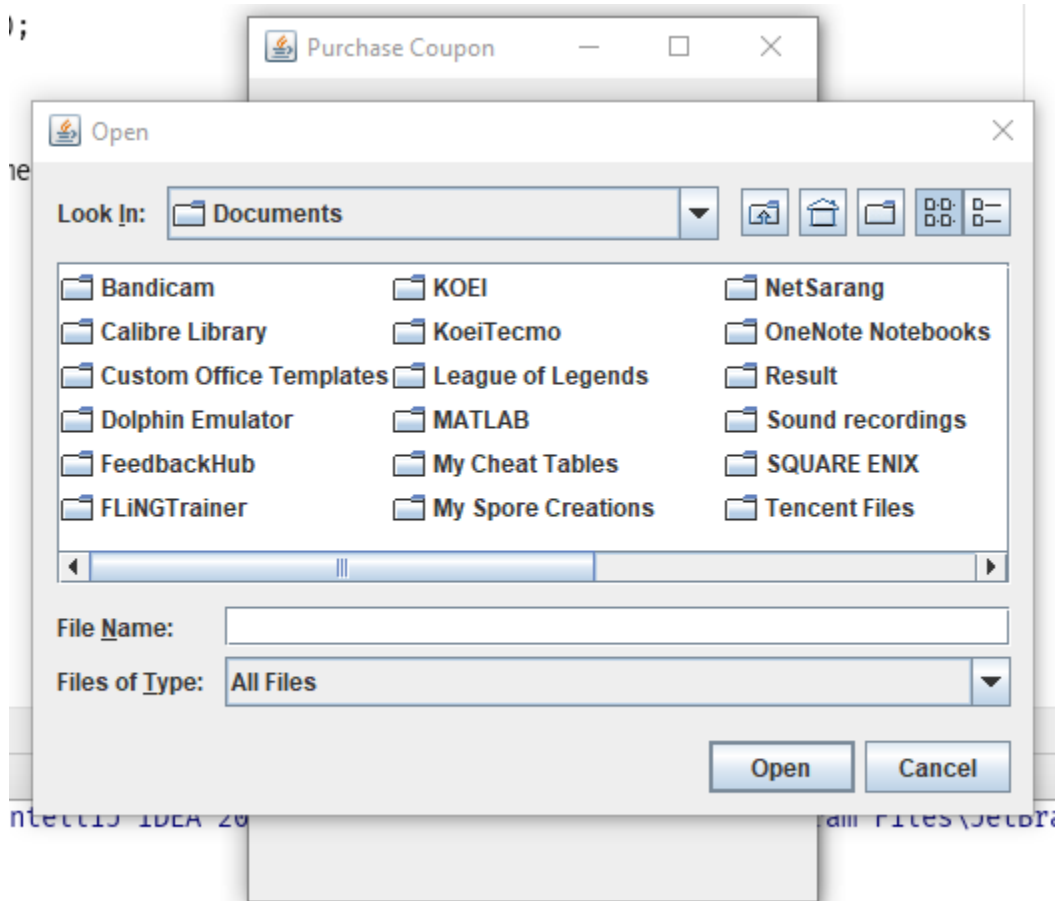


Purchase Coupon

When user click on the “purchase coupon” button, he or she will in this panel, there are two buttons here. User can use this input data by data file or manually.

Input using data file

User can choose a datafile to input coupon data.



Data file

There is a data file example and you can see the data file format here.



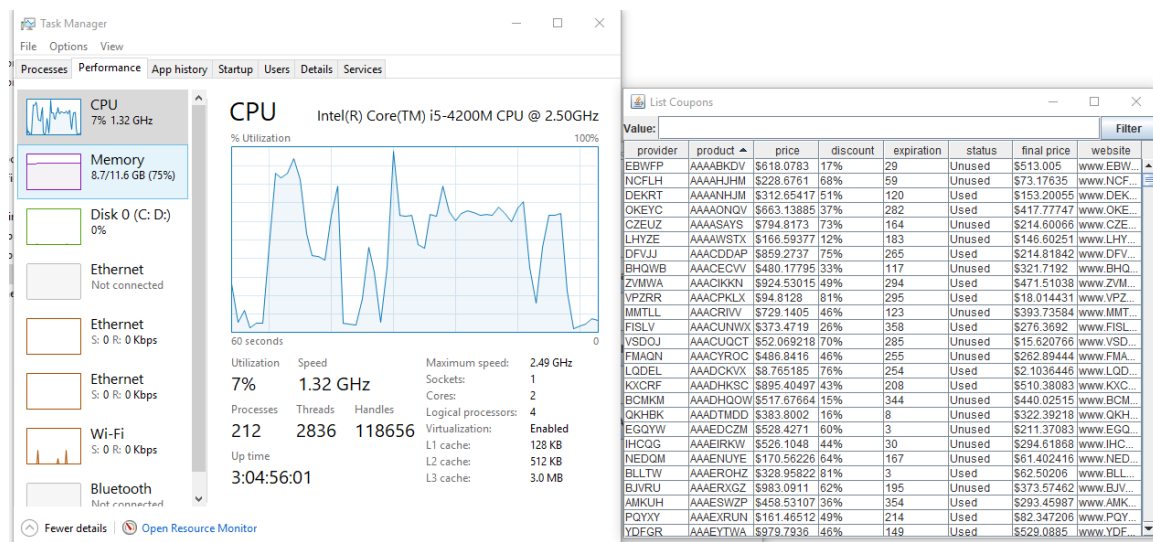
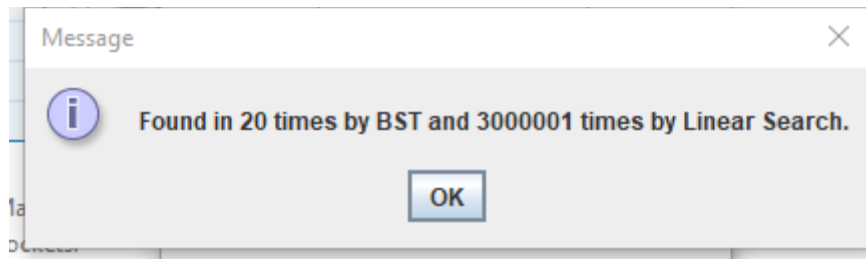
CouponCreate.java

Couponcreate.java is an assistant class to create large number of coupon data.

It is easily to create a custom number of random coupon data.

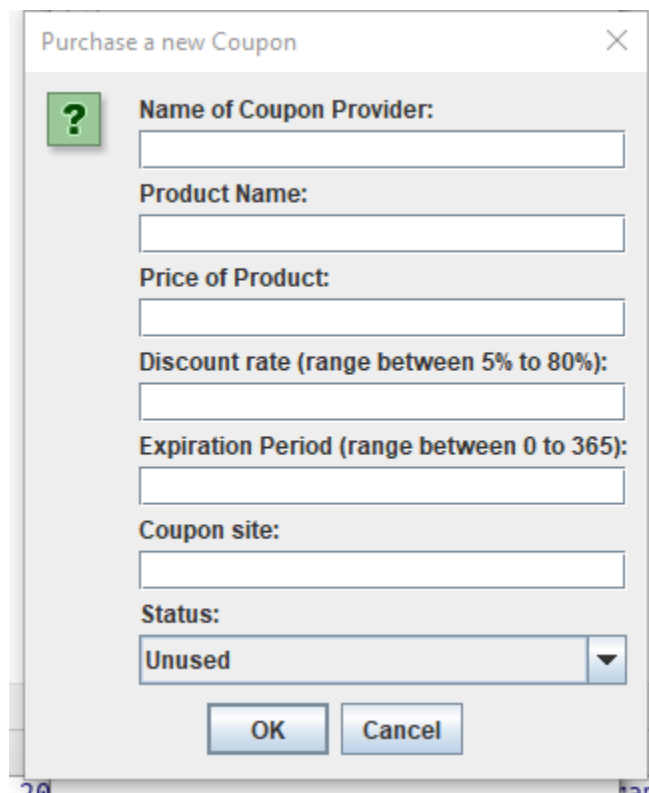
```
4 public class CouponCreation {
5
6 public static void main(String[] args) {
7     CouponCreation cc = new CouponCreation();
8     ArrayList<Coupon> couponList = new ArrayList<>();
9     for (int i = 0; i < 3000000; i++) {
10         couponList.add(cc.newCoupon());
11     }
12     String fileName = "list.txt";
13     try {
14         cc.writeFile(fileName, couponList);
15     }
16     catch (IOException e) {
17         System.out.println("Wrong Insertion!");
18     }
19 }
```

It is convenient to test coupon inventory system.



Input manually

User can input a coupon information here manually, there some restrict about input data type, the max range of “Coupon Provider” is 20 bytes. The max range about “Product Name” is 20 characters. The “price of produce” must be a number, such like “100.00, 20.5, 50, 12, 0.01”. The “discount rate” shall be a number between 5 to 80, e.g. 10, 20, 35, 70. The “Expiration period” shall be a number between 0 to 365.

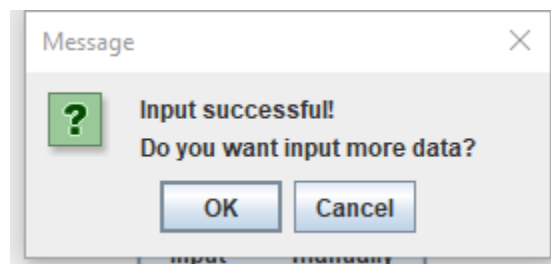


The screenshot shows a dialog box titled "Purchase a new Coupon" with a close button (X) in the top right corner. On the left side, there is a green square icon containing a white question mark. The main area of the dialog contains the following fields and labels:

- Name of Coupon Provider:** A text input field.
- Product Name:** A text input field.
- Price of Product:** A text input field.
- Discount rate (range between 5% to 80%):** A text input field.
- Expiration Period (range between 0 to 365):** A text input field.
- Coupon site:** A text input field.
- Status:** A dropdown menu with "Unused" selected and a downward arrow.

At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

When your input is down, it will give a choice to input more or exit.



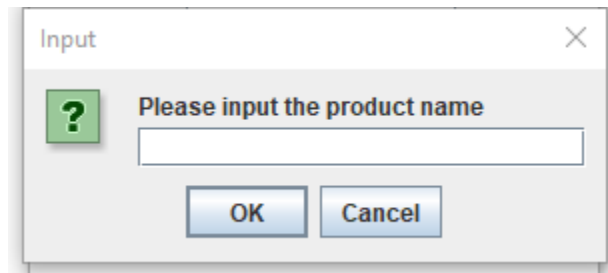
The screenshot shows a dialog box titled "Message" with a close button (X) in the top right corner. On the left side, there is a green square icon containing a white question mark. The main area of the dialog contains the following text:

Input successful!
Do you want input more data?

At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

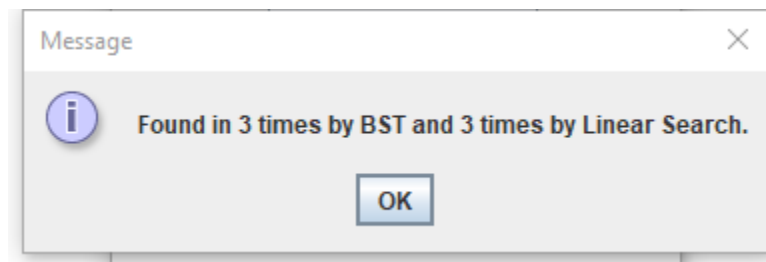
Search Coupon

When user choose the “ search coupon” button, it will comes to a search window. User can input a product name to serach some relative couopns.



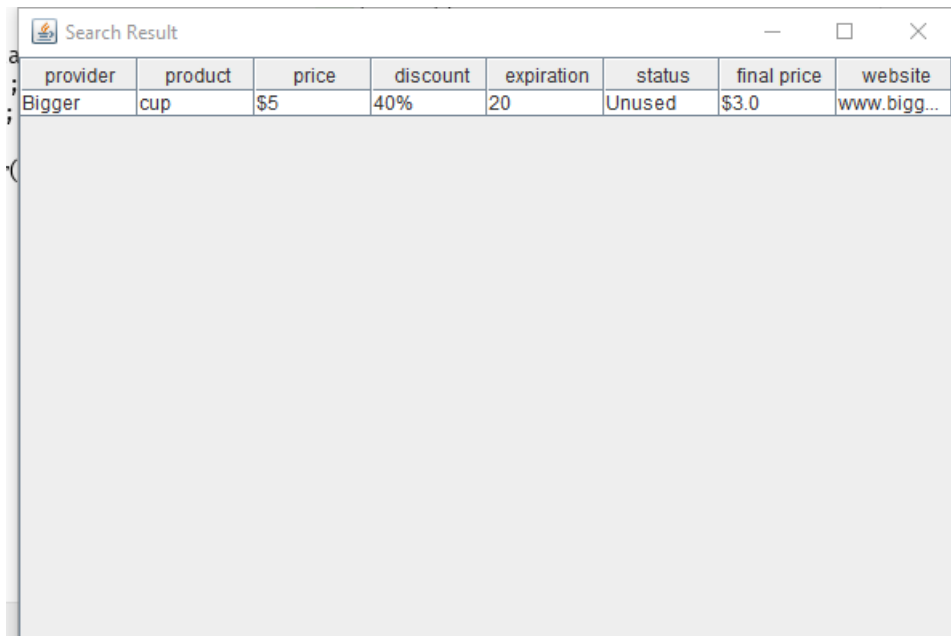
A dialog box titled "Input" with a close button (X) in the top right corner. It contains a green question mark icon, the text "Please input the product name", a text input field, and two buttons labeled "OK" and "Cancel".

It will give the count of search from existing list.



A message dialog box titled "Message" with a close button (X) in the top right corner. It contains an information icon (i), the text "Found in 3 times by BST and 3 times by Linear Search.", and an "OK" button.

There is the search result table.

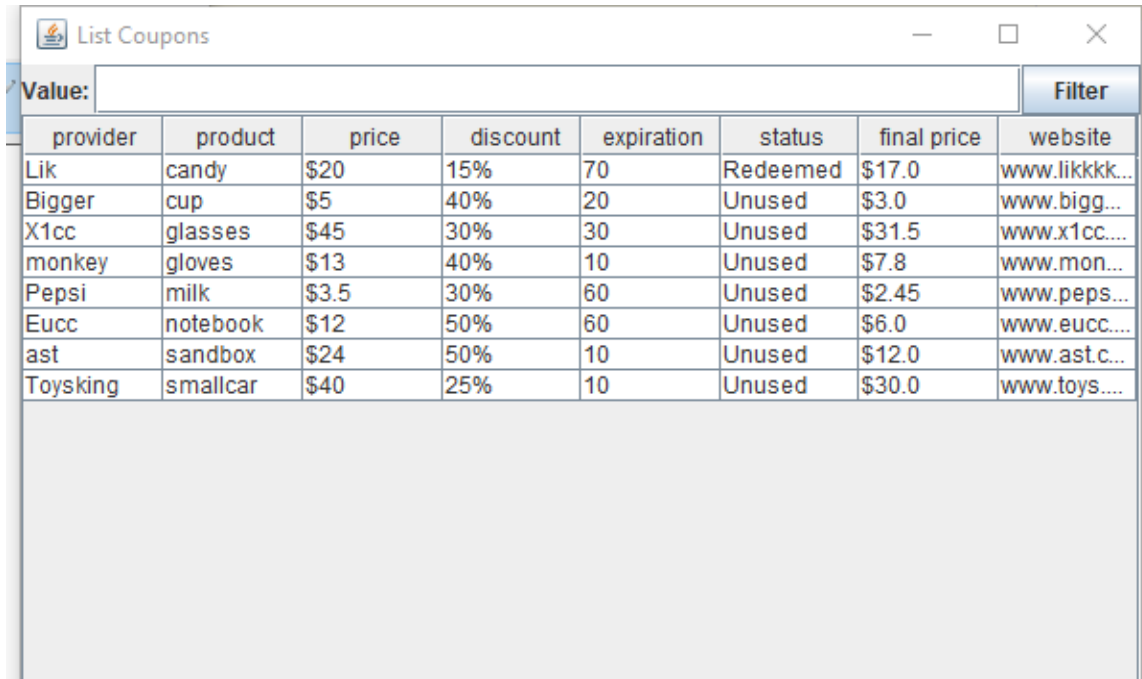


A window titled "Search Result" with a close button (X) in the top right corner. It displays a table with 8 columns: provider, product, price, discount, expiration, status, final price, and website. The first row of data shows "Bigger" as the provider, "cup" as the product, "\$5" as the price, "40%" as the discount, "20" as the expiration, "Unused" as the status, "\$3.0" as the final price, and "www.bigg..." as the website.

provider	product	price	discount	expiration	status	final price	website
Bigger	cup	\$5	40%	20	Unused	\$3.0	www.bigg...

List Coupons

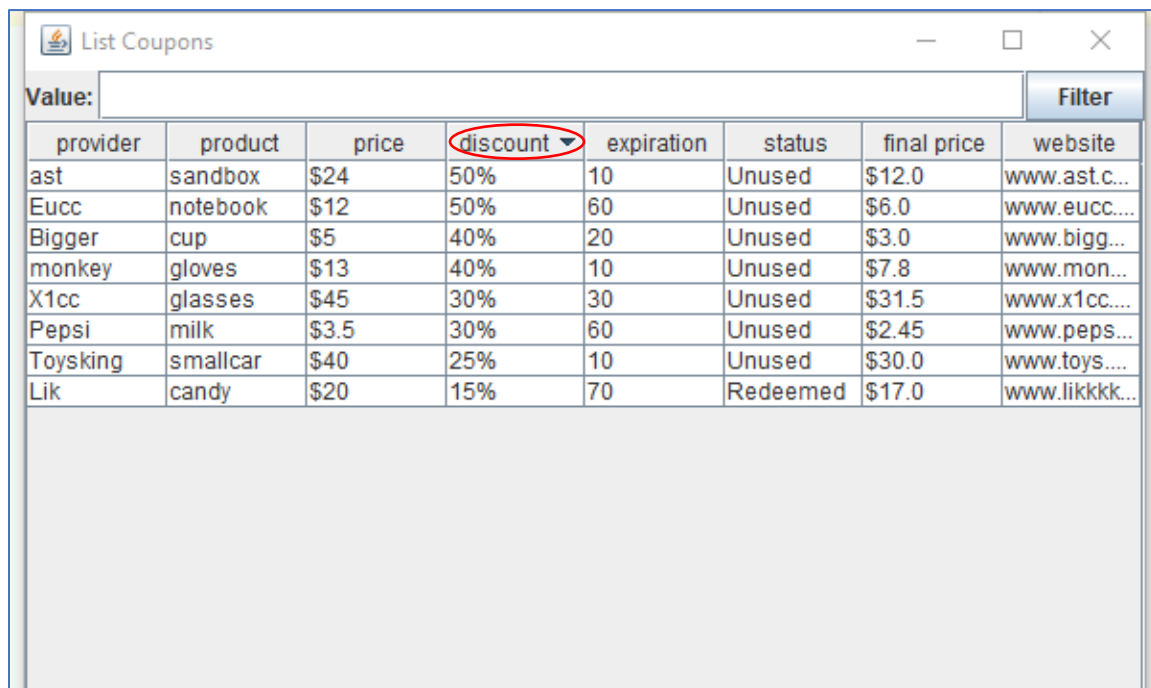
The last function is list coupons, when user click on the third button on the main panel, it will give all the coupon data in a table.



The screenshot shows a window titled "List Coupons" with a search bar labeled "Value:" and a "Filter" button. Below is a table with 8 columns: provider, product, price, discount, expiration, status, final price, and website. The table contains 8 rows of coupon data.

provider	product	price	discount	expiration	status	final price	website
Lik	candy	\$20	15%	70	Redeemed	\$17.0	www.likkkk...
Bigger	cup	\$5	40%	20	Unused	\$3.0	www.bigg...
X1cc	glasses	\$45	30%	30	Unused	\$31.5	www.x1cc....
monkey	gloves	\$13	40%	10	Unused	\$7.8	www.mon...
Pepsi	milk	\$3.5	30%	60	Unused	\$2.45	www.peps...
Eucc	notebook	\$12	50%	60	Unused	\$6.0	www.eucc....
ast	sandbox	\$24	50%	10	Unused	\$12.0	www.ast.c...
Toysking	smallcar	\$40	25%	10	Unused	\$30.0	www.toys....

User can sort the result by click any label.



The screenshot shows the same "List Coupons" window, but the table is now sorted by the "discount" column. The "discount" column header is circled in red. The rows are sorted in descending order of discount percentage.

provider	product	price	discount ▼	expiration	status	final price	website
ast	sandbox	\$24	50%	10	Unused	\$12.0	www.ast.c...
Eucc	notebook	\$12	50%	60	Unused	\$6.0	www.eucc....
Bigger	cup	\$5	40%	20	Unused	\$3.0	www.bigg...
monkey	gloves	\$13	40%	10	Unused	\$7.8	www.mon...
X1cc	glasses	\$45	30%	30	Unused	\$31.5	www.x1cc....
Pepsi	milk	\$3.5	30%	60	Unused	\$2.45	www.peps...
Toysking	smallcar	\$40	25%	10	Unused	\$30.0	www.toys....
Lik	candy	\$20	15%	70	Redeemed	\$17.0	www.likkkk...