GTU Department of Computer Engineering
CSE 222/505 - Spring 2021
Homework 6
Report

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Keep customer data for queue.

Thanks to queue, the customer who comes first takes care of his / her job first and reaches the ordered product.

Keep trader data for hash table.

The hash table structure was used because the search was done too much in the trader. One reason is that there is a high probability of encountering the same name in this structure. This is the most suitable data structure according to this structure.
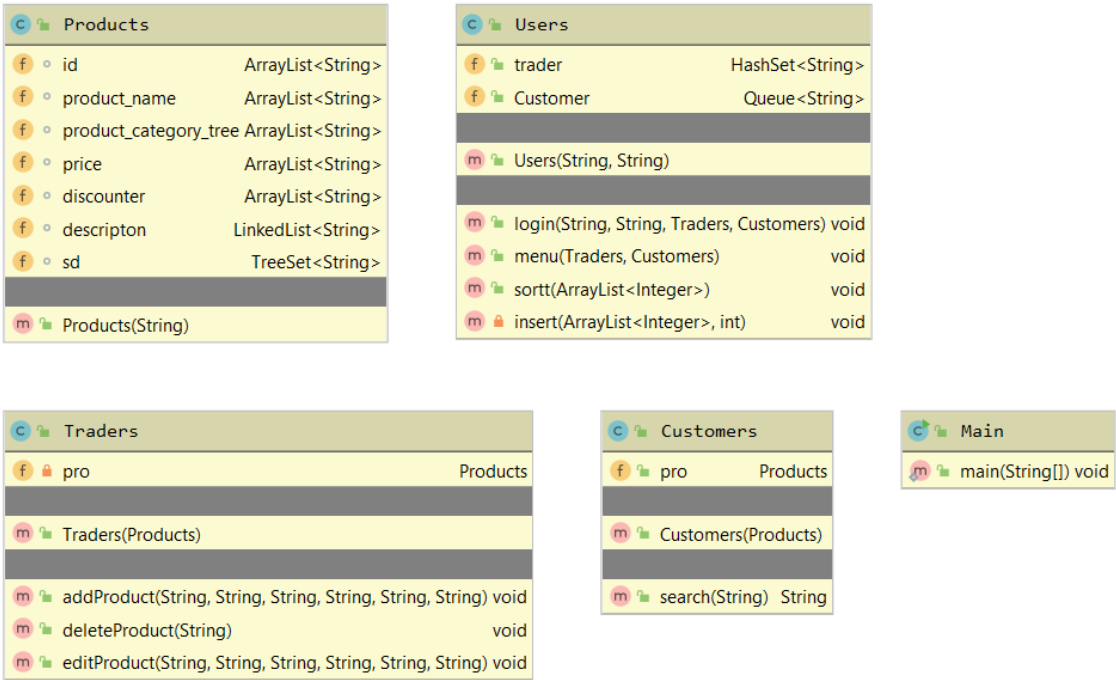
Keep product data for tree.

Tree speciality is its capability to lessen the time complication of basic processes such as remove, search and add, including identified as to find, insert, and delete.So using tree for prodcut.

Keep product information data for ArrayList and LinkedList.

Easy add and access element,so used it.

Class Diagram

Products

f ○ id		ArrayList<String>
f ○ product_name		ArrayList<String>
f ○ product_category_tree		ArrayList<String>
f ○ price		ArrayList<String>
f ○ discounter		ArrayList<String>
f ○ descripton		LinkedList<String>
f ○ sd		TreeSet<String>

m Products(String)

Users

f trader	HashSet<String>
f Customer	Queue<String>

m Users(String, String)

m login(String, String, Traders, Customers) void
m menu(Traders, Customers) void
m sortt(ArrayList<Integer>) void
m insert(ArrayList<Integer>, int) void

Traders

f 🔒 pro Products

m Traders(Products)

m addProduct(String, String, String, String, String, String) void
m deleteProduct(String) void
m editProduct(String, String, String, String, String, String) void

Customers

f pro Products

m Customers(Products)

m search(String) String

Main

m main(String[]) void

Test Case

```
1    Traders add product
2    Traders remove product
3    Traders edit product
4    Customers can search and query the products by their names. The products that contain the search text in their name or description should be returned in the results.
5    Sort Price
6    Sort Discount
7    Sort Name
8    Category or the prices with respect to given upper or lower (or both) thresholds.
9    Customers can display all the products of a trader.
Please enter your choice:
1
enter id
55
enter product_name
aaa
enter product_category_tree
dsa
enter price
50
enter discounter
45
enter desription
aasd
```

```
1    Traders add product
2    Traders remove product
3    Traders edit product
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5    Sort Price
6    Sort Discount
7    Sort Name
8    Category or the prices with respect to given upper or lower (or both) thresholds.
9    Customers can display all the products of a trader.
Please enter your choice:
2
Removed Id product
SBEEH3QGYGHFUEXN
Removed
```

```
1    Traders add product
2    Traders remove product
3    Traders edit product
4    Customers can search and query the products by their names. The products that contain the search text in their name or description should be returned in the results.
5    Sort Price
6    Sort Discount
7    Sort Name
8    Category or the prices with respect to given upper or lower (or both) thresholds.
9    Customers can display all the products of a trader.
Please enter your choice:
3
enter id
5ASD
enter product_name
ASD
enter product_category_tree
ASD
enter price
ASD
enter discounter
ASD
enter desription
ASD
```

```
1    Traders add product
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5    Sort Price
6    Sort Discount
7    Sort Name
8    Category or the prices with respect to given upper or lower (or both) thresholds.
9    Customers can display all the products of a trader.
Please enter your choice:
4
enter product_name
asdasd
Not Have
```

```
1    Traders add product
2    Traders remove product
3    Traders edit product
4    Customers can search and query the products by their names. The products that contain the search text in their name or description should be returned in the results.
5    Sort Price
6    Sort Discount
7    Sort Name
8    Category or the prices with respect to given upper or lower (or both) thresholds.
9    Customers can display all the products of a trader.
Please enter your choice:
5
999
35
36
49
55
59
59
59
63
69
69
70
78
79
79
80
80
80
80
80
80
```

```
1    Traders add product
2    Traders remove product
3    Traders edit product
4    Customers can search and query the products by their names. The products that contain the search text in their name or description should be returned in the results.
5    Sort Price
6    Sort Discount
7    Sort Name
8    Category or the prices with respect to given upper or lower (or both) thresholds.
9    Customers can display all the products of a trader.
Please enter your choice:
6
35
36
49
55
59
59
59
63
69
69
70
78
```

```
1    Traders add product
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9    Customers can display all the products of a trader.
Please enter your choice:
9
Enter Trader
orkun
"[""Clothing >> Men's Clothing >> Sports Wear >> Jackets >> KAVACi Jackets >> KAVACi Full Sleeve Solid Men's Jacket""]"
"[""Computers >> Laptop Accessories >> Laptop Adapters >> Hako Laptop Adapters >> Hako 60W Magsafe1 Laptop Charger For APPLE MacBo...""]"
"[""Clothing >> Women's Clothing >> Western Wear >> Shirts Tops & Tunics >> Polos & T-Shirts >> Point Fit Polos & T-Shirts >> Point Fit Solid Women's V-neck T-Shirt""]"
"[""Baby Care >> Infant Wear >> Baby Girls' Clothes >> Dresses & Skirts >> Dresses >> Saba Garments Dresses >> Saba Garments Baby Girl's Gathered Dress""]"
"[""Kitchen & Dining >> Coffee Mugs >> Value Bay Coffee Mugs >> Value Bay VBCMF05 Ceramic Mug (3.5 ml)""]"
"[""The Crazy Me 1 Compartments Eco-Friendly leather...""]"
"[""Pens & Stationery >> Office Supplies >> Desk Organizers >> Pack N Buy Desk Organizers >> Pack N Buy 4 Compartments Plastic Stationary Hol...""]"
"[""Automotive >> Accessories & Spare parts >> Car & Bike Lighting >> Bike Lighting >> Bike Light Bulbs >> Cm Treder kdp37 Motorbike LED Bulb (Headlight)""]"
"[""Footwear >> Women's Footwear >> Casual Shoes >> Mocassins >> Imlee Mojaris""]"
"[""Automotive >> CEAT 3.00-18 Secura Sport Tube Tyre""]"
"[""Automotive >> Accessories & Spare parts >> Car & Bike Lighting >> Bike Lighting >> Bike Light Bulbs >> HIMMLISCH STMPL17610 Scooter H4 3Bright Light Bu...""]"
```