GTU Department of Computer Engineering

CSE 222/505 - Spring 2021

Homework 6 Report

FATİH DOĞAÇ

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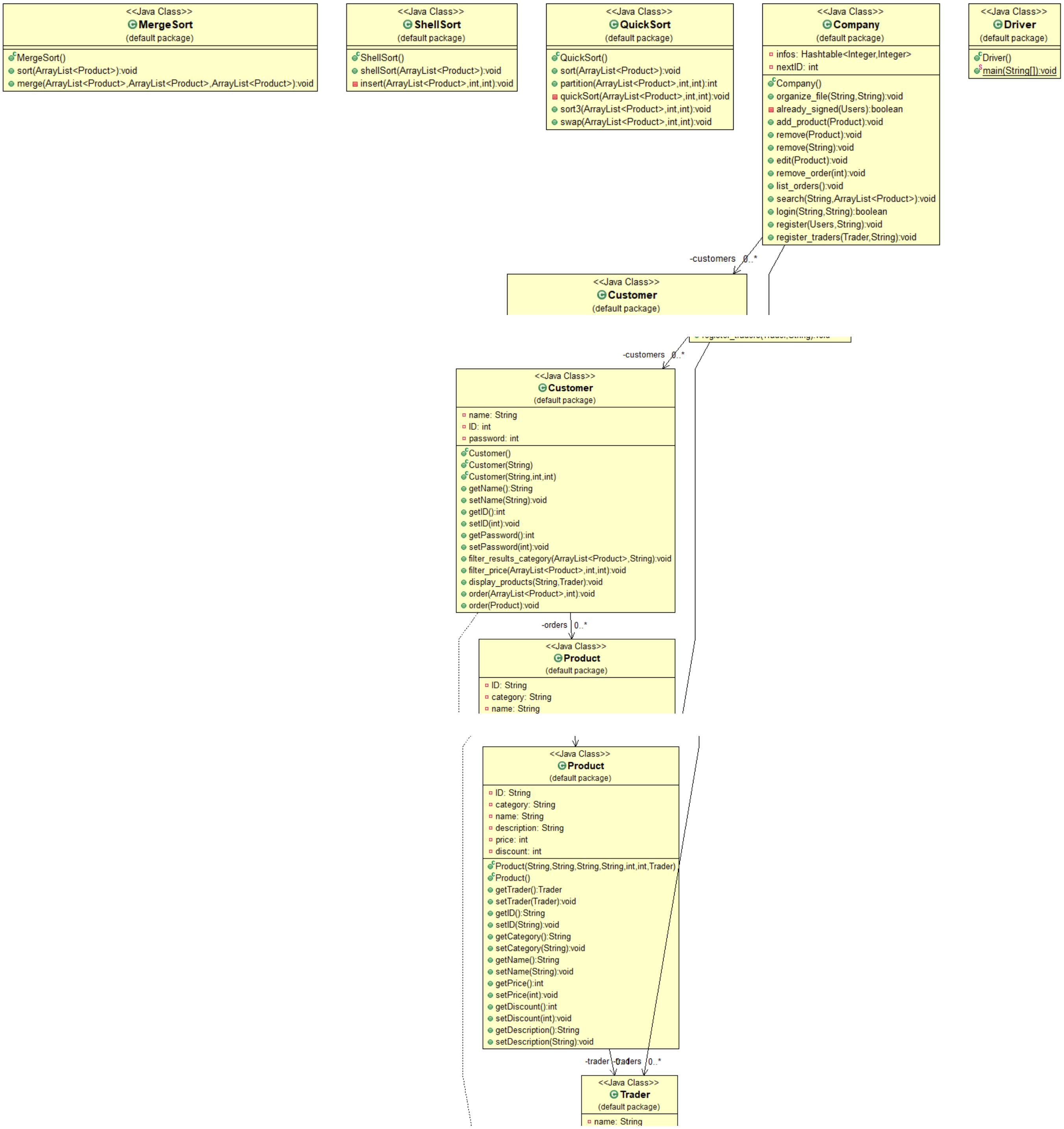
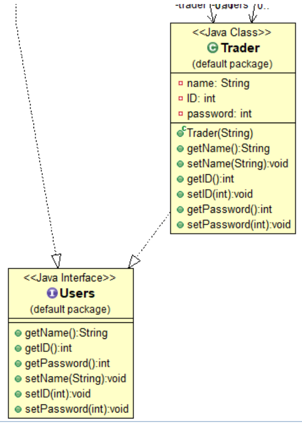
CLASS DIAGRAMS



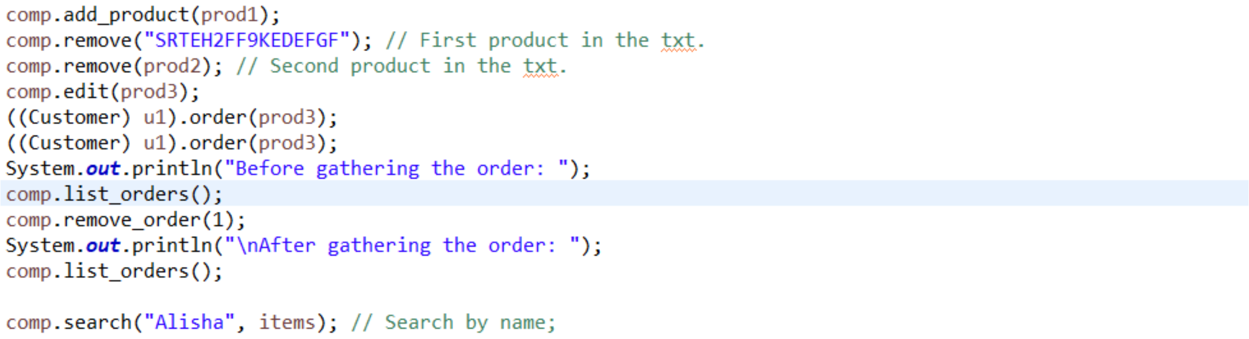


PROBLEM SOLUTION APPROACH

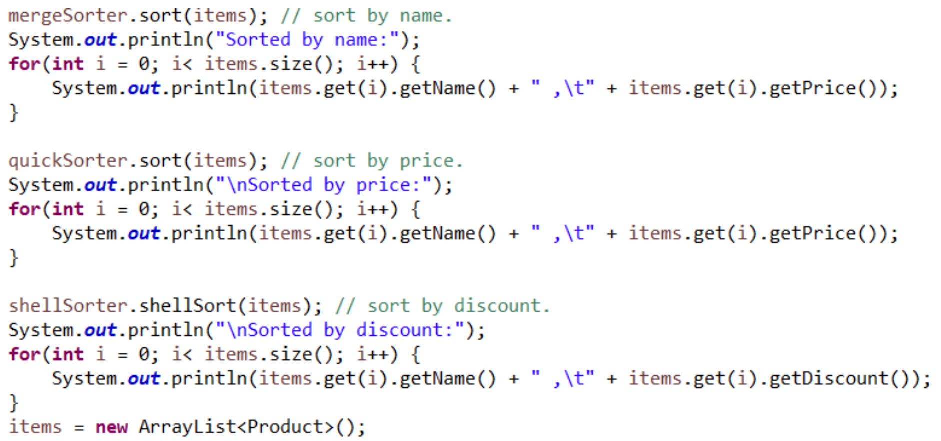
This homework was about using memory instead of RAM for our program because the datas might be extremely large. So when I have an error it was about the largeness of the data file.

I needed to reach the products but I must do it by using memory. So I saved products , users and orders to separate text files.

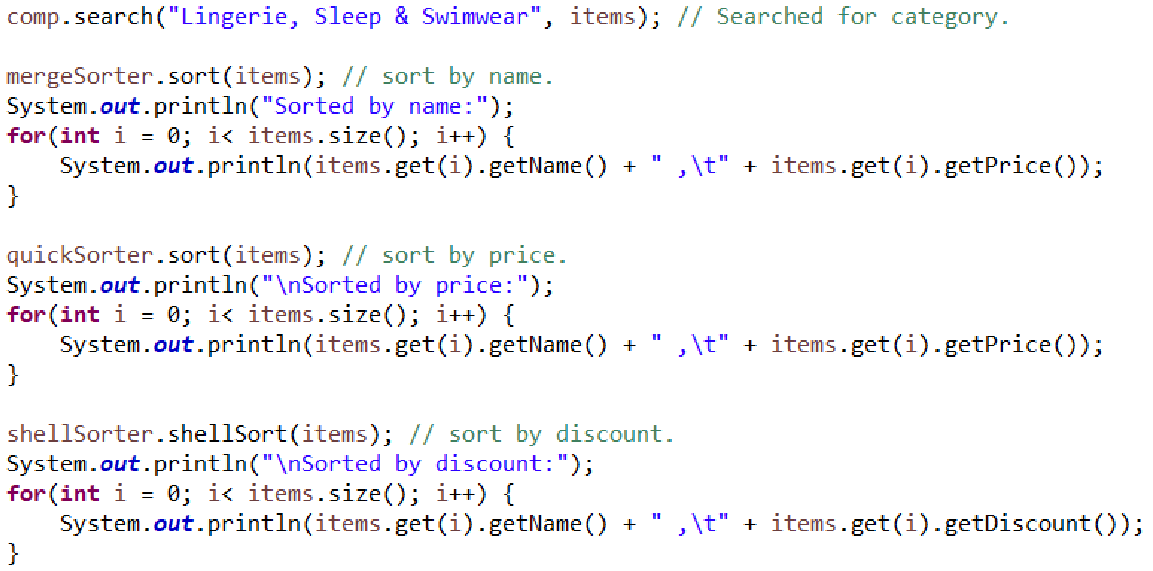
TEST CASES:



```
comp.add_product(prod1);
comp.remove("SRTEH2FF9KEDEFGF"); // First product in the txt.
comp.remove(prod2); // Second product in the txt.
comp.edit(prod3);
((Customer) u1).order(prod3);
((Customer) u1).order(prod3);
System.out.println("Before gathering the order: ");
comp.list_orders();
comp.remove_order(1);
System.out.println("\nAfter gathering the order: ");
comp.list_orders();

comp.search("Alisha", items); // Search by name;
```

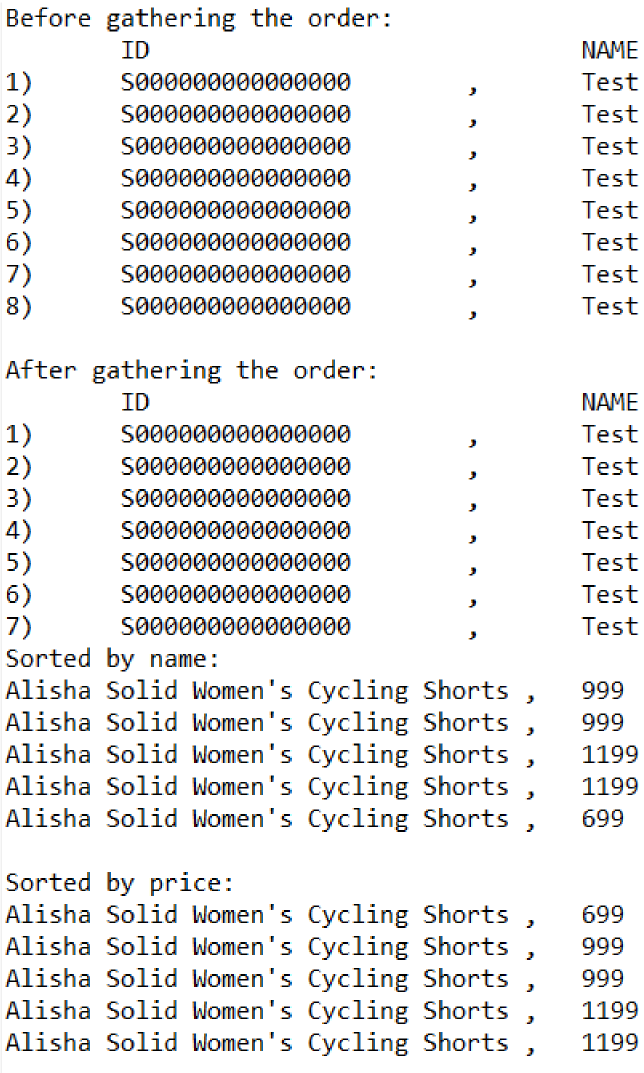


```
mergeSorter.sort(items); // sort by name.
System.out.println("Sorted by name:");
for(int i = 0; i< items.size(); i++) {
    System.out.println(items.get(i).getName() + " ,\t" + items.get(i).getPrice());
}

quickSorter.sort(items); // sort by price.
System.out.println("\nSorted by price:");
for(int i = 0; i< items.size(); i++) {
    System.out.println(items.get(i).getName() + " ,\t" + items.get(i).getPrice());
}

shellSorter.shellSort(items); // sort by discount.
System.out.println("\nSorted by discount:");
for(int i = 0; i< items.size(); i++) {
    System.out.println(items.get(i).getName() + " ,\t" + items.get(i).getDiscount());
}
items = new ArrayList<Product>();
```



```
comp.search("Lingerie, Sleep & Swimwear", items); // Searched for category.

mergeSorter.sort(items); // sort by name.
System.out.println("Sorted by name:");
for(int i = 0; i< items.size(); i++) {
    System.out.println(items.get(i).getName() + " ,\t" + items.get(i).getPrice());
}

quickSorter.sort(items); // sort by price.
System.out.println("\nSorted by price:");
for(int i = 0; i< items.size(); i++) {
    System.out.println(items.get(i).getName() + " ,\t" + items.get(i).getPrice());
}

shellSorter.shellSort(items); // sort by discount.
System.out.println("\nSorted by discount:");
for(int i = 0; i< items.size(); i++) {
    System.out.println(items.get(i).getName() + " ,\t" + items.get(i).getDiscount());
}
```

RUNNING AND RESULTS



```
Before gathering the order:
        ID                              NAME
1)      S000000000000000        ,       Test
2)      S000000000000000        ,       Test
3)      S000000000000000        ,       Test
4)      S000000000000000        ,       Test
5)      S000000000000000        ,       Test
6)      S000000000000000        ,       Test
7)      S000000000000000        ,       Test
8)      S000000000000000        ,       Test

After gathering the order:
        ID                              NAME
1)      S000000000000000        ,       Test
2)      S000000000000000        ,       Test
3)      S000000000000000        ,       Test
4)      S000000000000000        ,       Test
5)      S000000000000000        ,       Test
6)      S000000000000000        ,       Test
7)      S000000000000000        ,       Test
Sorted by name:
Alisha Solid Women's Cycling Shorts ,   999
Alisha Solid Women's Cycling Shorts ,   999
Alisha Solid Women's Cycling Shorts ,   1199
Alisha Solid Women's Cycling Shorts ,   1199
Alisha Solid Women's Cycling Shorts ,   699

Sorted by price:
Alisha Solid Women's Cycling Shorts ,   699
Alisha Solid Women's Cycling Shorts ,   999
Alisha Solid Women's Cycling Shorts ,   999
Alisha Solid Women's Cycling Shorts ,   1199
Alisha Solid Women's Cycling Shorts ,   1199
```

```
Sorted by discount:
Alisha Solid Women's Cycling Shorts ,   267
Alisha Solid Women's Cycling Shorts ,   379
Alisha Solid Women's Cycling Shorts ,   379
Alisha Solid Women's Cycling Shorts ,   479
Alisha Solid Women's Cycling Shorts ,   479
Sorted by name:

Sorted by price:

Sorted by discount:
```