

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

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1. PROBLEM SOLUTION APPROACH

This is an e-shopping application. There are 2 users in the system. These are traders and customers. Traders can add, edit and remove products. In addition, they will be able to approve the products that customers want to buy. Customers will be able to search for products and also perform filtering processing according to the standards they want. The program has company class. This class reads the product file when the program started. Also, this class has login and register methods. In the search process, a binary search tree was used to view the products requested by the customer in order. A tied list was used to see the categories in order. A queue was used to keep orders. In this way, there was no waste of time for adding to the end process. The hash table was used. In this way, the search by name was made easily. Products, users and orders are saved to the file, they are read from file when it is needed.

2. TEST CASES

1. Company class created

```
// company is created
Company company = new Company();
```

2. Register operation executed

```
//Customer and Trader is registered
company.register("Atakan", "123456", 1);
company.register("Samet", "123456", 2);
//password must be given 6 character
if(!company.register("Okan", "123", 1)) {
    System.out.println("The password is invalid!");
}
```

3. Login operation executed

```
//Customer and Trader is logged in
Trader trader = (Trader) company.Login("10000000", "200000", 2);
Customer customer = (Customer) company.Login("30000000", "123456", 1);
```

4. Customer operations

4.1 Customer search, filter operations

```
//Customer search function decreasing order the name
BinaryTree<Product> products = customer.searchProduct("Shorts", 1);
```

```
//Customer category function. this functions divide products to category
customer.Category(products, "Clothing");
```

```
//Customer filter function. this functions filter products to price
customer.Filter(products, 200, 300);
```

```
//Customer give order function
```

4.2 Customer search trader operation

```
//Customer searchtrader function this function search product to trader name
customer.searchTrader("Alisha");
if(customer.searchTrader("asdsf")) {
    System.out.println("This trader is not been in company");
}
```

4.3 Customer giver order operation

```
//Customer give order function
customer.giveOrder(products, "SRTEH2FF9KEDEFGF");
customer.giveOrder(products, "SRTEH2FGBDJGX8FW");
```

5. Trader operations

5.1 Trader add product operation

```
//Trader addProduct function
Product product = new Product("123", "Asfefwdge", "Baby Care:Infant Wear:Baby Boy's Clothes: Shorts", 200.0, 200.0, "short", "Alisha");
if(trader.addProduct(product)) {
    System.out.println("The product has been added!");
}
product = new Product("SRTEH2FF9KEDEFGF", "Asfefwdge", "Baby Care:Infant Wear:Baby Boy's Clothes: Shorts", 200.0, 200.0, "short", "Alisha");
if(!trader.addProduct(product)) {
    System.out.println("The product has not been added because the product has already been this company!");
}
```

5.2 Trader remove product operation

```
//Trader removeProduct function
if(trader.removeProduct("SRTEH2FF9KEDEFGF")) {
    System.out.println("The product has been removed!");
}
if(!trader.removeProduct("123")) {
    System.out.println("The product has not been removed because the product has not been this company!");
}
```

5.3 Trader edit product operation

```
//Trader editProduct function
if(trader.editProduct("SRTEH2FF9KEDEFGF",100000.0,1)) {
    System.out.println("The product has been edited!");
}
if(!trader.editProduct("123",100000,1)) {
    System.out.println("The product has not been edited because the product has not been this company!");
}
```

5.4 Trader print order operation

```
customer.giveOrder(products, "SRTEH2FGBDJGX8FW");

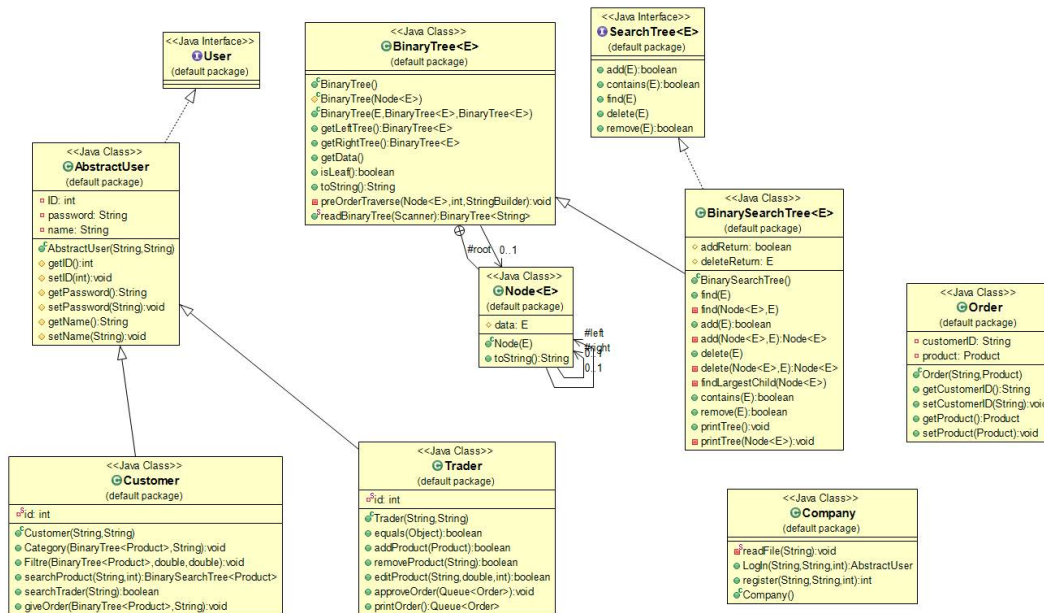
//Trader printorder function print order and return order
Queue<Order> orders = trader.printOrder();
```

5.5 Trader approve order operation

```
Queue<Order> orders = trader.printOrder();

//Trader approveorder function approve order and remove this products
trader.approveOrder(orders);
```

3. Class Diagram



4. Running Command And Results

1.Program is started

```

Welcome to Alaca Shop
1.Register as trader
2.Register as customer
3.Log In as trader
4.Log In as customer
5.Quit
    
```

2.Register as trader

```

1
Please enter a name:
Atakan
Please enter a password(This must be greater than 6 character):
1234567
Registration is valid!
    
```

3.Register as customer

```

2
Please enter a name:
Samet
Please enter a password(This must be greater than 6 character):
1234
Registration is invalid! Because password hasn't 6 character

2
Please enter a name:
Samet
Please enter a password(This must be greater than 6 character):
1234567
Registration is valid!
Your ID is: 30000000
Please take note your ID!
    
```

4. Login as customer

```
4
Please enter your ID:
30000000
Please enter your password:
1234567
Welcome !
Which operation do you want to run ?
1.Search Product
2.Print One trader envanter
3.Quit
```

4.1 Search Product

```
3.Quit
1
Please enter a name which search ?
Shorts
How would you like to sort?
1.Name 2.Price 3.Trader name 4. DiscountPercentage
1
ID:SRTEHQFQXGYQG6GH      Name:Vitamins Solid Baby Girl's Basic Shorts      Category:[Baby Care, Infant Wear, Baby
ID:SPWEGBPFF5DGQKAXP      Name:Wetex Premium Women's Shapewear      Category:[Clothing, Women's Clothing, Lin
ID:SPWEGBPFFJB9NHRWH      Name:Wetex Premium Women's Shapewear      Category:[Clothing, Women's Clothing, Lin
ID:SRTEEYREBSQJ9XEG      Name:Zero Printed Baby Boy's, Baby Girl's Basic Shorts      Category:[Baby Care, Infant
ID:SRTEEYRERRHA543N      Name:Zero Printed Baby Boy's, Baby Girl's Basic Shorts      Category:[Baby Care, Infant
ID:SRTEEYRFQD9V9YBT      Name:Zero Printed Baby Boy's, Baby Girl's Basic Shorts      Category:[Baby Care, Infant
ID:SRTEEYREHHZZGGG      Name:Zero Printed Baby Boy's, Baby Girl's Basic Shorts      Category:[Baby Care, Infant
Would you like to see just once category ? (e.g. Clothing) (Yes:1 No:2)
Would you like to see just once category : (e.g. Clothing) (Yes:1 No:2)
1
Please enter the category name:
Baby Care
ID:SRTEGYXHGCXUBD2      Name:FS Mini Klub Printed Baby Girl's Basic Shorts      Category:[Baby Care, Infant Wear, Baby
ID:SRTEHVUPQ4S3GWEK      Name:FS Mini Klub Printed Baby Girl's Basic Shorts      Category:[Baby Care, Infant Wear, Baby
ID:SRTEHVUP4FPGWYVZ      Name:FS Mini Klub Printed Baby Girl's Basic Shorts      Category:[Baby Care, Infant Wear, Baby
ID:SRTEGJV4J8DRGYG3      Name:FS Mini Klub Printed Baby Girl's Basic Shorts      Category:[Baby Care, Infant Wear, Baby
ID:NSTEJCAZYYYAZXGY      Name:CHOCOBERRY Baby Girl's Printed White, Dark Blue Top, Capri & Shorts Set      Category:[Baby
ID:SRTEJF2S2JDSHJTF      Name:FS Mini Klub Printed Baby Boy's Multicolor Basic Shorts      Category:[Baby Care, Infant Wea
Would you like to see filter : (e.g. between 200-300 price) (Yes:1 No:2)
1
Please enter the first filtre:
233
Please enter the second filtre:
1000000
ID:SRTEH2FF9KEDEFGF      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep & Swimwear, Shorts, A
ID:SRTEH2F6HUZMQ6S3      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep & Swimwear, Shorts, A
ID:SRTEH2FVVKRBAXHB      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep & Swimwear, Shorts, A
ID:SRTEH2FVUHAHVH9X      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep & Swimwear, Shorts, A
ID:SRTEH2FGBDJGX8FW      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep & Swimwear, Shorts, A
ID:SRTEH2FFCMGN7JXT      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep & Swimwear, Shorts, A
ID:SRTEB3XAW3GGEU2YA      Name:UFO Printed Girl's Basic Shorts      Category:[Clothing, Kids' Cloth
ID:SRTEB3XANNAGW2BX      Name:UFO Printed Girl's Basic Shorts      Category:[Clothing, Kids' Cloth
ID:SRTEHQFQMZKU9NVY      Name:Vitamins Solid Baby Girl's Basic Shorts      Category:[Vitamins Solid
ID:SPWEGBPFFJB9NHRWH      Name:Wetex Premium Women's Shapewear      Category:[Clothing, Women's Clo
ID:SPWEGBPFF5DGQKAXP      Name:Wetex Premium Women's Shapewear      Category:[Clothing, Women's Clo
Would you like to buy ? (Yes:1 No:2)
1
Please enter product ID:
SPWEGBPFF5DGQKAXP
```

4.2 Print Trader Envanter

```
2
Please enter a trader name:
Alisha
ID:SRTEH2F6HUZMQ6S3      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep &
ID:SRTEH2FGBDJGX8FW      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep &
ID:SRTEH2FVVKRBAXHB      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep &
ID:SRTEH2FECMGNZJXJ      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep &
ID:SRTEH2FVUHAHVH9X      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep &
ID:SRTEH2FF9KEDEFGF      Name:Alisha Solid Women's Cycling Shorts      Category:[Clothing, Women's Clothing, Lingerie, Sleep &
```


5. Login as trader

```
Please enter your ID:
10000000
Please enter your password:
200000
Welcome !
Which operation do you want to run ?
1.Add product
2.Remove Product
3.Edit Product
4.Approve Order
5.Return menu
```

5. 1 Add product

```
1
Please enter an product ID:
SSAGRGSDGDFDBD
Please enter an product name:
ARABA
Please enter an product category(e. g. book:childbook:babybook ):
MERCEDES:COMPRESSOR:E190
Please enter an product price:
500000000000
Please enter an product discounted_price:
499999999999
Please enter an product description:
THIS IS A CAR
This product have been added!
```

5. 2 Remove product

```
2
Please enter an product ID:
SRTEH2FF9KEDEFGF
This product have been removed!
```

5. 3 Edit product

```
3
Please enter an product ID:
SSAGRGSDGDFDBD
Please enter a new product price:
300000000000
```

5.4 Approve order

```
4
ID:SRTEH2FECMGNZJXJ      Name:Alisha Solid Women's Cycling Shorts      Category:[[Clothing, Women's Clothing, Lingerie, Sleep & Swimwear, Shorts, Alisha Solid Women's Cycling Shorts]]
Do you want to approve product ?(Yes: 1 , No: 2)
1
```