

Homework 7

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Question 4

Problem-solution approach

I made a system with basic functionality mentioned in the pdf. There are two types of users, admin and user. Admin extends user and has ability to update things in the system such as update the price of a package, update price of the package or sell a package. When selling, if quantity drops below 0 software package is removed from the system. In addition to name admin has its password also and implements AdminInterface which has following methods:

```
verifyAdmin  
addUser  
removeUser  
addAdmin  
removeAdmin  
addSoftwarePackage  
updateQunatity  
updatePrice  
sellSoftwarePackage
```

There are users who implement search interface that provides functionality of browsing the system by software: name, price and quantity. All system's functionality is encapsulated within the package it is in (software.system.gtu). There is one more class used for testing the program and it console menu based and extends SoftwareSystem class (no real need to extend it but just to show their relation – one as a building block and one as a tester). It has one public method which is startSystem() that initializes the whole system. To store data in the system SearchTree interface was used.

Tests cases

Test cases are run inside the virtual machine provided. Its actual results can be confirmed from the attached screenshots.

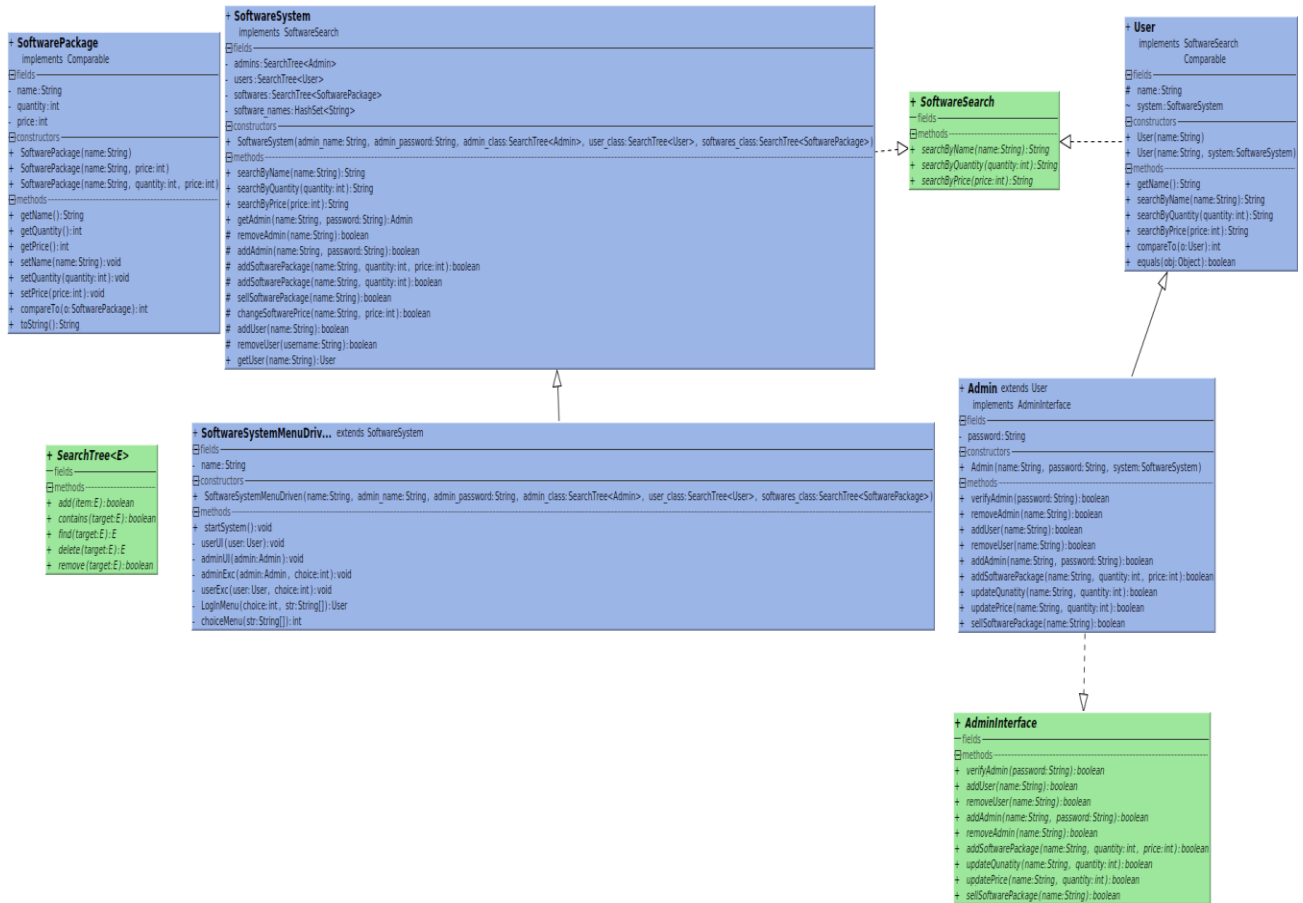
Test Scenario	Expected Results	Actual Results
Creating a system with admin 'djuro' whose password is 'pw'	System should be created	As expected
Running the system and its console base UI	Should runt and show options	As expected

Choosing option '1' - Admin	A should afterwards request for name and password	As expected
Entering 'djuro' as name and 'pw' as password	Should be able to enter the admin's menu	As expected
Choosing to add a new admin from the system	Should request for the name and password of this new admin	As expected
Entering 'rada' as name and 'loptice' as password	Should add a new admin	As expected
Adding a new admin again with name 'marjia' and password 'srce'	Should add new admin	As expected
Choosing to remove an admin from the system	Should request admin's name	As expected
Entering 'marija' as name of the admin to be removed	Should not be able to remove since 'marija' is not an admin	As expected
Removing again and entering 'marjia' as admin name	Should remove marjia as admin	As expected
Choosing the option '1' to add a user	Should request name of the user	As expected
Entering name macka as username	New user should be added	As expected
Adding a user again with name 'patka'	New user should be added	As expected
Choosing option '2' to remove a user from the system	Should request the name of the use to be removed	As expected
Entering 'patka' as name of the user to be removed	Should remove this user	As expected
Choosing option '2' to remove a user again and entering 'kokoska' as name of the user to be removed	It should not be possible to remove 'kokoska' since it is not a user	As expected
Choosing option '3' to add a new software	Should request name price and quantity of the software	As expected
Entering 'Djuro software' as software name, '5' for quantity and '999' as its price	Software should be added to the system	As expected
Choosing option '4' to sell a software	Should request name of the software to be sold	As expected
Entering 'Adobe Photoshop 6.0' as software's name	Should sell this item and its quantity would go from 2 to 1	As expected
Choosing option 5 to update quantity of some software	Should request name and quantity of the software to be updated	As expected

Entering 'Adobe Flash 3.3' as the name and 2 as number of packages to be added	Should add them and the quantity of this software package would rise from 2 to 4	As expected
Doing this again with name of the package 'saldj'	Should not be possible since it doesn't exist	As expected
Choosing '6' to update price of some software package	Should request for the name of the package and its new price	As expected
Entering 'Adobe Flash 4.0' as name and '500' as its new price	Should update the price	As expected
Choosing '8' to browse the system as a user	Should give a menu of options from which it should choose what to do	As expected
Chooses '2' to search to search by product's price	Should request for a price	As expected
Entering '500' for the price	Should show all the software packages that sell for 500	As expected
Choosing '3' to go back to admin's menu	Should go back to admin's UI	As expected
Choosing '9' to go back to main menu	Should go back to main menu	As expected
Choosing '1' to log in as admin	Should request name and password	As expected
Entering 'rada' as admin's name and 'loptice' as its password	Should have a successful login	As expected
Choosing '9' to go back to main menu	Should go back to main menu	As expected
Trying to log in with admin name 'marjia' and password 'srce'	Should not be possible since it was removed	As expected
Choosing '0' to log in as a user	Should request to enter a name for the user	As expected
Entering 'macka' as username	Should login and show browsing options	As expected
Choosing '0' to search the system by name	Should request name of the software package	As expected
Entering 'Adobe PhotoShop 6.0'	Should should information about this package	As expected
Choosing '1' to search by quantity of the package	Should request for quantity	As expected
Entering quantity of 2	Should show packages with this quantity	As expected
Choosing '2' to search the system by software's price	Should request for price	As expected
Entering '200' as software's price	Should show softwares with this price point	As expected

Choosing '0' now to should to search by name and entering 'Adobe Flash 3.3.' as name	Should display all info about this package	As expected
Choosing '3' to go back to main menu	Should go back to the main menu	As expected
Choosing '1' to log in as admin again and entering 'djuro' and 'pw' for name and password	Should log in and show admin's interface	As expected
Choosing '4' to sell a software package	Should request for the name of package to be sold	As expected
Entering 'Adobe PhotoShop 6.0'	Should remove it from the system since its quantity would drop to 0	As expected
Choosing '4' and entering 'Adobe Photoshop 6.0' again	Should indicate that it is not in stock	As expected
Choosing '9' to go back to main menu	Should return to the main menu	As expected
Choosing '2' to Exit the system	Should terminate the application	As expected

Class diagram of this system



Running command and results

Output of the code executed in the virtual machine is provided in here

```

C:\Users\lami> java -jar System.jar
Welcome to: System
who are you?
0)user
1)admin
2)exit
0
Enter your username
djuro
Enter your password
pw
Admin UI
Welcome djuro
0)add admin
1)add user
2)remove user
3)add software package
4)sell software package
5)update quantity
6)update price
7)remove admin
8)search as user
9)exit
0
Enter new admin's name
ada
Enter new admin's pw
123456
Admin successfully added
0)add admin
1)add user
2)remove user
3)add software package
4)sell software package
5)update quantity
6)update price
7)remove admin
8)search as user
9)exit
0
Enter new admin's name
murli
Enter new admin's pw
123456
Admin successfully added
0)add admin
1)add user
2)remove user
3)add software package
4)sell software package
5)update quantity
6)update price
7)remove admin
8)search as user
9)exit
0
Enter the name of admin to be removed
murli

```

```
Seç Komut İstemi
/
Enter the name of admin to be removed
marlja
Admin name invalid
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
/
Enter the name of admin to be removed
marlja
Admin removed
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
1
Enter name of the user to be added
macka
User added
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
1
Enter name of the user to be added
patka
User added
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
1
Enter name of the user to be removed
patka
User removed
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
2
Enter name of the user to be removed
kokoska
Not valid, please try some other name
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
1
Enter name of the package to be added
Djuno software
Enter quantity to be added
5
Enter software's price
999
Software added
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
4
Enter name of the package to be sold
Adobe Photoshop 6.0
Software Package sold
0)Add admin
1)Add User
2)Remove user
3)Add software package
```

```
Seç Komut İstemi
8)Search as user
9)Exit
2
Enter name of the user to be removed
patka
User removed
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
2
Enter name of the user to be removed
kokoska
Not valid, please try some other name
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
1
Enter name of the package to be added
Djuno software
Enter quantity to be added
5
Enter software's price
999
Software added
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
4
Enter name of the package to be sold
Adobe Photoshop 6.0
Software Package sold
0)Add admin
1)Add User
2)Remove user
3)Add software package
```

```
Se Komut listesi
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
5
Enter name of the package whose quantity is to be updated
Adobe Flash 3.3
Enter quantity to be added
2
Quantity updated
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
5
Enter name of the package whose quantity is to be updated
saldj
Enter quantity to be added
5
Invalid name
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
6
Enter name of the package whose price is to be updated
Adobe Flash 4.0
Enter new price
500
Price updated
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
```

```
Se Komut listesi
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
8
User: djuro
0)Search system by software name
1)Search system by software quantity
2)Search system by software price
3)Exit
2
Enter price
500
Name: Adobe Flash 4.0 | Quantity: 2 | Price: 500
0)Search system by software name
1)Search system by software quantity
2)Search system by software price
3)Exit
3
Exit
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
9
Exiting..
Welcome to: System
Who are you?
0)User
1)Admin
2)Exit
1
Enter your username
rada
Enter your password
loptice
Admin UI
Welcome rada
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
```

```
Seç Komut İstemi
0)Search as user
0)Exit
0
Exiting..
Welcome to: System
who are you?
0)User
1)Admin
2)Exit
1
Enter your username
marjia
Enter your password
srce
Login was not successful
Welcome to: System
who are you?
0)User
1)Admin
2)Exit
0
Enter your username
macka
User UI
User: macka
0)Search system by software name
1)Search system by software quantity
2)Search system by software price
3)Exit
0
Enter name
Adobe Photoshop 6.0
Name: Adobe Photoshop 6.0 | Quantity: 1 | Price: 100
0)Search system by software name
1)Search system by software quantity
2)Search system by software price
3)Exit
1
Enter quantity
2
Name: Norton 4.5 | Quantity: 2 | Price: 200
Name: Norton 5.5 | Quantity: 2 | Price: 200
Name: Adobe Photoshop 6.2 | Quantity: 2 | Price: 100
Name: Adobe Flash 4.0 | Quantity: 2 | Price: 500
0)Search system by software name
1)Search system by software quantity
2)Search system by software price
3)Exit
2
Enter price
200
Name: Norton 4.5 | Quantity: 2 | Price: 200
Name: Norton 5.5 | Quantity: 2 | Price: 200
0)Search system by software name
```

```
Seç Komut İstemi
0)Search system by software name
1)Search system by software quantity
2)Search system by software price
3)Exit
0
Enter name
Adobe Flash 3.3
Name: Adobe Flash 3.3 | Quantity: 4 | Price: 100
0)Search system by software name
1)Search system by software quantity
2)Search system by software price
3)Exit
3
Exit
Welcome to: System
who are you?
0)User
1)Admin
2)Exit
1
Enter your username
djruo
Enter your password
pw
Login was not successful
Welcome to: System
who are you?
0)User
1)Admin
2)Exit
1
Enter your username
djuno
Enter your password
pw
Admin UI
Welcome djuno
0)Add admin
1)Add User
2)Remove user
3)Add software package
4)Sell software package
5)Update quantity
6)Update price
7)Remove admin
8)Search as user
9)Exit
4
Enter name of the package to be sold
Adobe Photoshop 6.0
Software Package sold
0)Add admin
1)Add User
2)Remove user
3)Add software package
```



```
Se Komut listesi
2) Remove user
3) Add software package
4) Sell software package
5) Update quantity
6) Update price
7) Remove admin
8) Search as user
9) Exit
4
Enter name of the package to be sold
Adobe Photoshop 6.0
Not in stock
0) Add admin
1) Add User
2) Remove user
3) Add software package
4) Sell software package
5) Update quantity
6) Update price
7) Remove admin
8) Search as user
9) Exit
9
Exiting..
Welcome to: System
Who are you?
0) User
1) Admin
2) Exit
2

C:\Users\cse222\Desktop\VMK7\q4\snc>
```

Aramak için buraya yazın



ENG 01:50 6.06.2020