

Gebze Technical University

Computer Engineering

CSE222-2020-SPRING

Homework-7_Part4 Report

Ferdi Sönmez

161044046

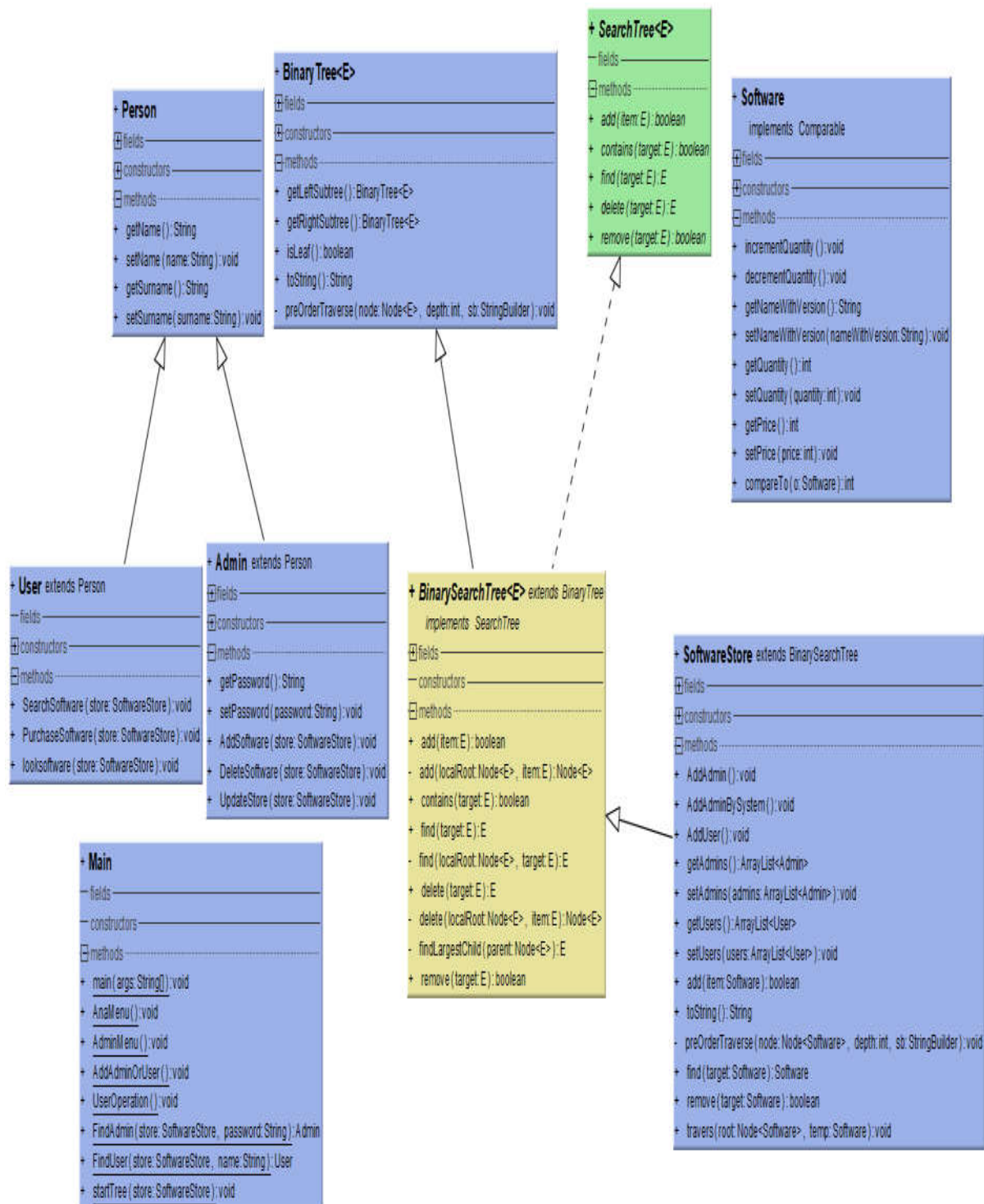
1)Problem Solutions Approach

It extends the BinarySearchTree and uses the add,find and remove functions in BinarySearchTree. Using these functions, changes in the methods override makes by itself perform the wanted operations.

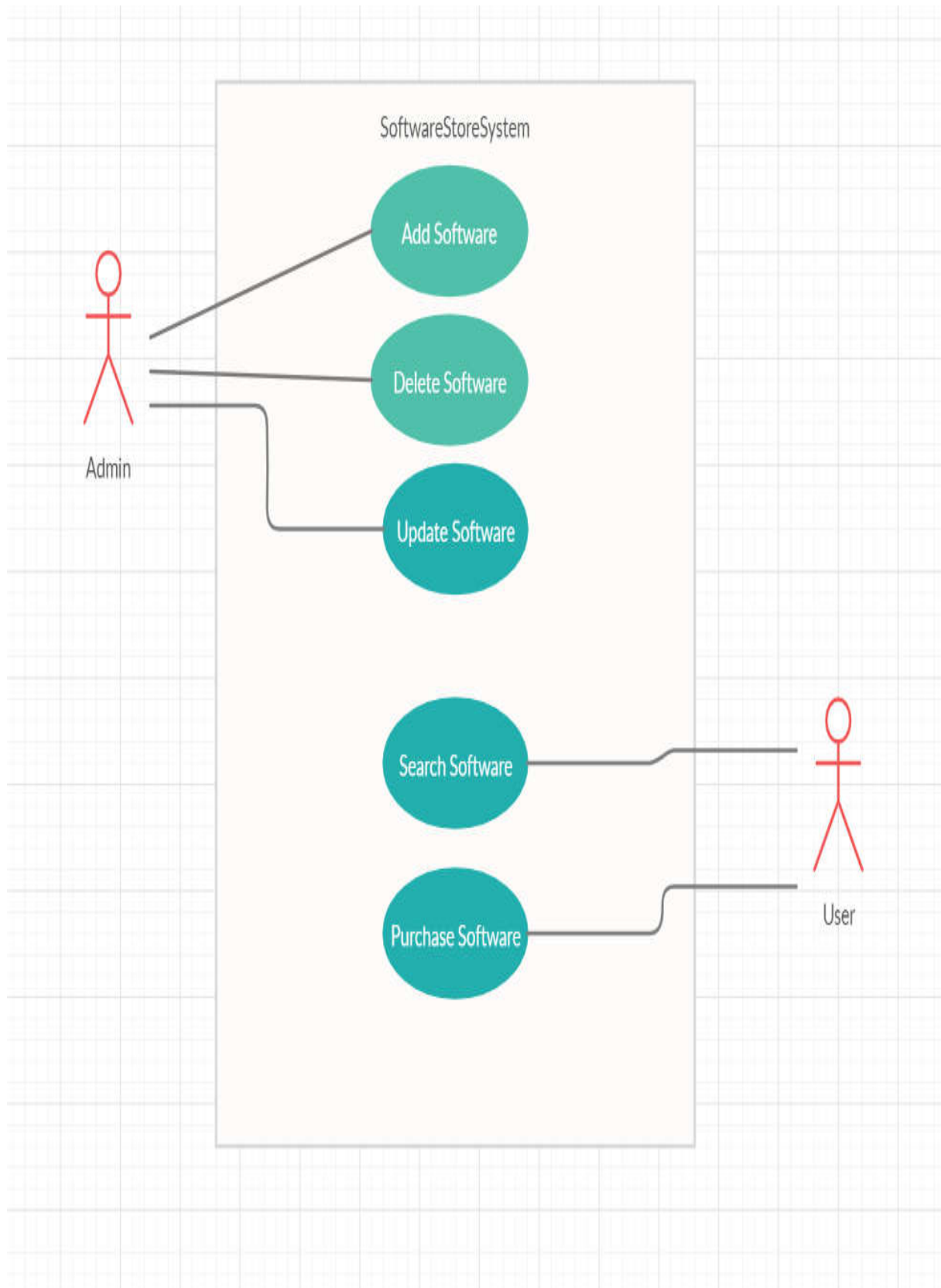
The find function is also found with the superclass find function.

The remove function finds the software with the find method in the super class, if the number of software is more than 1, it decreases the number of software or it completely delete the software. The administrator registered in the system can make any changes in the software in the system. In addition, the user entering the system can purchase the software and look at its features.

2) Class Diagram



3)Use Case Diagram



4)Test Case

a) Administrator added to the system.

```
Enter Name Of Administrator
Ferdî
Enter Surname Of Administrator
Sönmez
Enter Password Of Administrator
1610
```

b) User added to the system.

```
Enter Name Of User
user1
Enter Surname Of User
user1surname
.....
```

c) An attempt was made to enter the system with the wrong password.

```
Enter The Password
174
Not Correct Password
```

d) Entered to the system with the correct password.

```
Enter The Password
1610
Ferdî Sönmez Logged into the system
```

e) A new software was added to the system by the administrator.

```
Enter Name Of Software
Gtu
Enter Quantity Of Software
18
Enter Price Of Software
350
```

f) A software in the system was deleted by the administrator.

```
Enter Name Of Software For Delete
Gtu
Delete: Gtu
```

g) The amount of software in the system was renewed by the administrator.

```
Name:Adobe Photoshop 6.0 /Quantity:2 /Price:100
Name:Adobe Flash 3.3 /Quantity:2 /Price:100
Name:Adobe Flash 4.0 /Quantity:2 /Price:100
Name:Adobe Photoshop 6.2 /Quantity:2 /Price:100
Name:Norton 4.5 /Quantity:2 /Price:100
Name:Gtu /Quantity:17 /Price:350
Name:Norton 5.5 /Quantity:2 /Price:100
```

```
1-Update Quality
2-Update Price
3-Exit Update System
Make Your Choice
```

```
1
Enter Name Of Software For Update
```

```
Gtu
Enter The New Quality
```

```
46
Name:Adobe Photoshop 6.0 /Quantity:2 /Price:100
Name:Adobe Flash 3.3 /Quantity:2 /Price:100
Name:Adobe Flash 4.0 /Quantity:2 /Price:100
Name:Adobe Photoshop 6.2 /Quantity:2 /Price:100
Name:Norton 4.5 /Quantity:2 /Price:100
Name:Gtu /Quantity:46 /Price:350
Name:Norton 5.5 /Quantity:2 /Price:100
```

h) The price of the software in the system was renewed by the administrator.

```
Name:Adobe Photoshop 6.0 /Quantity:2 /Price:100
Name:Adobe Flash 3.3 /Quantity:2 /Price:100
Name:Adobe Flash 4.0 /Quantity:2 /Price:100
Name:Adobe Photoshop 6.2 /Quantity:2 /Price:100
Name:Norton 4.5 /Quantity:2 /Price:100
Name:Gtu /Quantity:46 /Price:350
Name:Norton 5.5 /Quantity:2 /Price:100
```

```
1-Update Quality
2-Update Price
3-Exit Update System
Make Your Choice
```

2

```
Enter Name Of Software For Update
```

Gtu

```
Enter The New Price
```

680

```
Name:Adobe Photoshop 6.0 /Quantity:2 /Price:100
Name:Adobe Flash 3.3 /Quantity:2 /Price:100
Name:Adobe Flash 4.0 /Quantity:2 /Price:100
Name:Adobe Photoshop 6.2 /Quantity:2 /Price:100
Name:Norton 4.5 /Quantity:2 /Price:100
Name:Gtu /Quantity:46 /Price:680
Name:Norton 5.5 /Quantity:2 /Price:100
```

I) Softwares in the system is displayed by the user.

```
*****UserOperation*****
```

```
1-Search Software
2-Purchase Software
3-Look All Software in Store
4-Exit UserOperationMenu
```

```
*****
```

```
Make Your Choice
```

3

```
Enter Name Of User
```

user1

```
Name:Adobe Photoshop 6.0 /Quantity:2 /Price:100
Name:Adobe Flash 3.3 /Quantity:2 /Price:100
Name:Adobe Flash 4.0 /Quantity:2 /Price:100
Name:Adobe Photoshop 6.2 /Quantity:2 /Price:100
Name:Norton 4.5 /Quantity:2 /Price:100
Name:Gtu /Quantity:46 /Price:680
Name:Norton 5.5 /Quantity:2 /Price:100
```

j) Any software requested by the user is searched.

```
*****UserOperation*****
1-Search Software
2-Purchase Software
3-Look All Software in Store
4-Exit UserOperationMenu
*****
Make Your Choice
1
Enter Name Of User
user1
Enter Name Of Software
Gtu
SoftwareName:Gtu /SoftwareQuantity:46 /SoftwarePrice:680
```

k) The user can purchase any software she wants.

```
*****UserOperation*****
1-Search Software
2-Purchase Software
3-Look All Software in Store
4-Exit UserOperationMenu
*****
Make Your Choice
2
Enter Name Of User
user1
Enter the Name of the software you want to purchase
Gtu
Gtu Software Purchased
```