Lab 11 Assignment: Overloading and Templates

Implement the following classes. Oveload the **"==", "!=", ">>"** and **"<<"** operators for these classes. Then you are expected to write a program that will search the given array according to the information to be received from the user. The information should be entered respectively as "name","price","screenSize","storage".
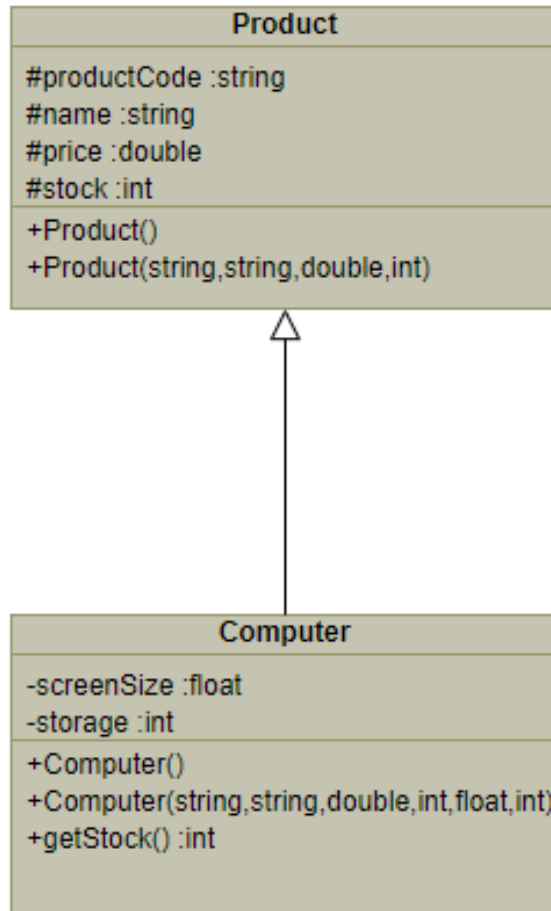
You should compare the information entered using the operators you have overloaded with the computers you have. If there is an identical computer and the stock is greater than zero, the "Computer found!" message, the product code, name, price, stock number, screen size, and storage information of the matching computer in the array should be printed on the console. If there is no computer in the given information, the message "Computer not found :(" should be displayed. The user should be able to search as many times as the user wants until the program closes.

Submission:

- You need to upload your Assignment solutions to the "Assignments" section on the CATS course page. Assignments sent via e-mail will **not be accepted.**
- Upload screenshots of your output.
- Upload all project folder.

```
Computer computers[5] = { Computer("123A456","HP",25000,15,13.3,256),
            Computer("345A456","ASUS",21650,5,13.3,128),
            Computer("678A456","Dell",35045,20,15,256),
            Computer("912A456","Lenovo",22000,3,13.3,128),
            Computer("123A987","Acer",18050,25,13.3,128)
                                        };
```

Important Note: Do not share your solution with others! Do not collaborate with each other! You have to do your assignment by yourself. Otherwise, your submission will not be evaluated and both you and the person that you get the file from will get zero points from the assignment.

```
┌─────────────────────────────────────────┐
│                 Product                   │
├─────────────────────────────────────────┤
│ #productCode :string                      │
│ #name :string                             │
│ #price :double                            │
│ #stock :int                               │
├─────────────────────────────────────────┤
│ +Product()                                │
│ +Product(string,string,double,int)        │
└─────────────────────────────────────────┘
                    △
                    │
                    │
┌─────────────────────────────────────────┐
│                 Computer                  │
├─────────────────────────────────────────┤
│ -screenSize :float                        │
│ -storage :int                             │
├─────────────────────────────────────────┤
│ +Computer()                               │
│ +Computer(string,string,double,int,float,int) │
│ +getStock() :int                          │
└─────────────────────────────────────────┘
```

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Sample Output:

```
1.Search
2.Exit
```

```
1.Search
2.Exit
1
Enter computer information to search:
```

```
1.Search
2.Exit
1
Enter computer information to search: Dell 35045 15 256
```

```
1.Search
2.Exit
1
Enter computer information to search: Dell 35045 15 256
Computer found!
Product Code: 678A456
Name:Dell
Price: 35045
Stock: 20
Screen Size15
Storage: 256
1.Search
2.Exit
```

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