

Individual Assignment #2 (7%)

Deadline

Please submit **single zip file** to **Assignment 2** (not the lab submissions journal), on Blackboard by **Midnight Sunday April 10th**. Work by yourself, as this is an individual assignment. Please list your Name, Email & Student ID in your code comments.

In accordance with CIT guidelines, the penalties for late submissions are as follows:

- up to one week late – subtract 10%.
- up to two weeks late – subtract 20%.

Submissions more than two weeks late will not be accepted.

NOTE: ZERO marks will be awarded to submissions that do not compile.

If you have any problems with submission, email your lab group instructor.

Practice Time

This assignment is indicative of what you would receive in a Final Exam, so you should look to be able to complete this, with practice, within 40 minutes under Final Exam Conditions!

Required Files

1- JAVA File [beerInfo.java]

Description of the problem

Write a program (beerInfo.java) that:

- Defines an array called *beerNames* that can contain a maximum of 10 Strings and another array called *beerStrengths* that can contain 10 decimal point numbers.
- Assigns the following values for the arrays.

<i>beerNames</i>	<i>beerStrengths</i>
Heineken	4.0
Bud Light	4.2
Coors Lite	4.3
Leffe Blonde	6.6
Budweiser	5.0
Erdinger Non-Alcoholic	0.0
Bud Premier Select	7.4
Corona	4.6
Barefoot Bohemian	4.0
3 Monts	8.5

The program must display a console menu to the user that allows them to achieve the following functionality:

1) Sort by Beer Strength

- a) By Highest Strength
- b) By Lowest Strength
- c) Return to main menu

2) Sort by Beer Name

- a) By Name Ascending
- b) By Name Descending
- c) Return to main menu

3) Search by Beers

- a) Greater or equal than a Certain Strength
- b) Less or equal than a Certain Strength
- c) By Beer Name. Note that the beer name search is a free text search. The keyword search ignores case.

The keyword must be at least 3 characters in length.

- d) Return to main menu

Sort by Beer Strength Ascending Sample Run

Erdinger Non-Alcoholic	0.0
Barefoot Bohemian	4.0
Heineken	4.0
Bud Light	4.2
Coors Lite	4.3
Corona	4.6
Budweiser	5
Leffe Blonde	6.6
Bud Premier Select	7.4
3 Monts	8.5

Sort by Beer Name Ascending Sample Run

3 Monts	8.5
Barefoot Bohemian	4.0
Bud Light	4.2
Bud Premier Select	7.4
Budweiser	5.0
Coors Lite	4.3
Corona	4.6
Erdinger Non-Alcoholic	0.0
Heineken	4.0
Leffe Blonde	6.6

Search by Beer Name Sample Run 1

```
Enter beer name:  bud
The alcohol content of "Bud Light" is 4.2%
The alcohol content of "Budweiser" is 5.0%
```

Search by Beer Name Sample Run 2

```
Enter beer name:  Budweiser
The alcohol content of "Budweiser" is 5.0%
```

Marking Scheme

1- JAVA File	100%
beerStrength Array & beerNames Array	5%
Program Menu with all parent-child (nested) menu options	10%
Sort beerStrength Ascending	10%
Sort beerStrength Descending	10%
Sort beerName Ascending	10%
Sort beerName Descending	10%
Search by Strength Equal/Greater Than	5%
Search by Strength Equal/Less Than	5%
Search by Name Partial Match	30%
Validation Throughout	5%

Eg no empty inputs, numbers only for beerStrength, etc.