

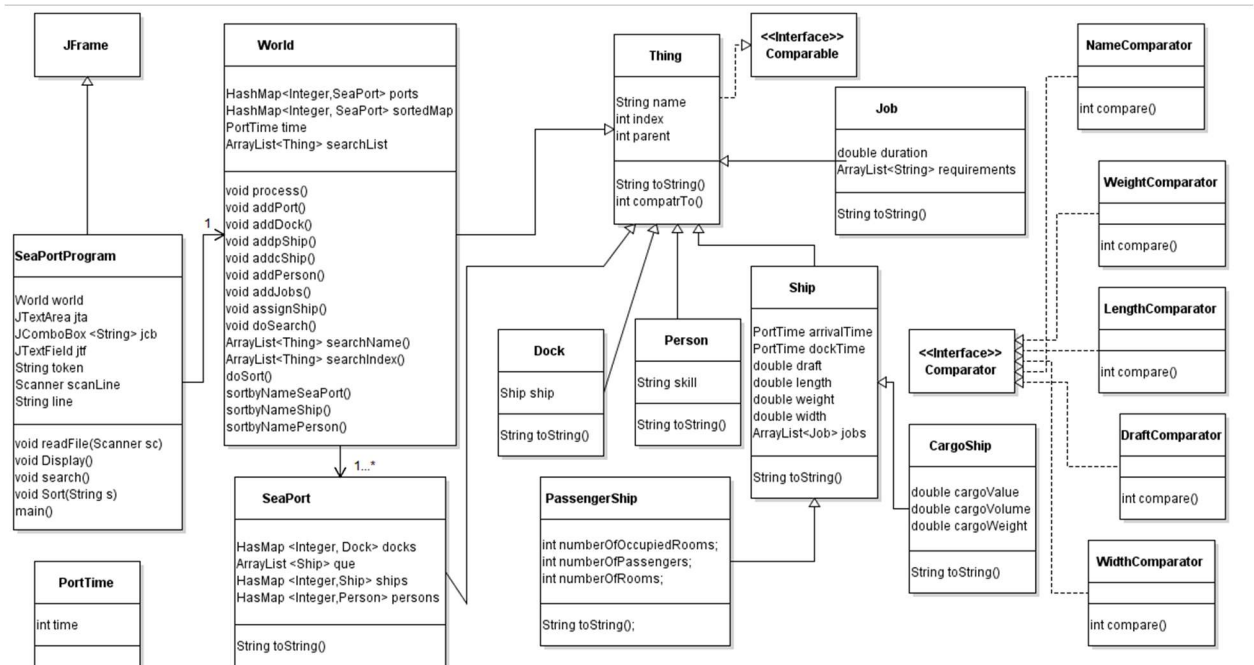
## **Project 2 Documentation**

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Date: April 14<sup>th</sup> 2019

Class: CMSC 335

- Design:



- User's guide:

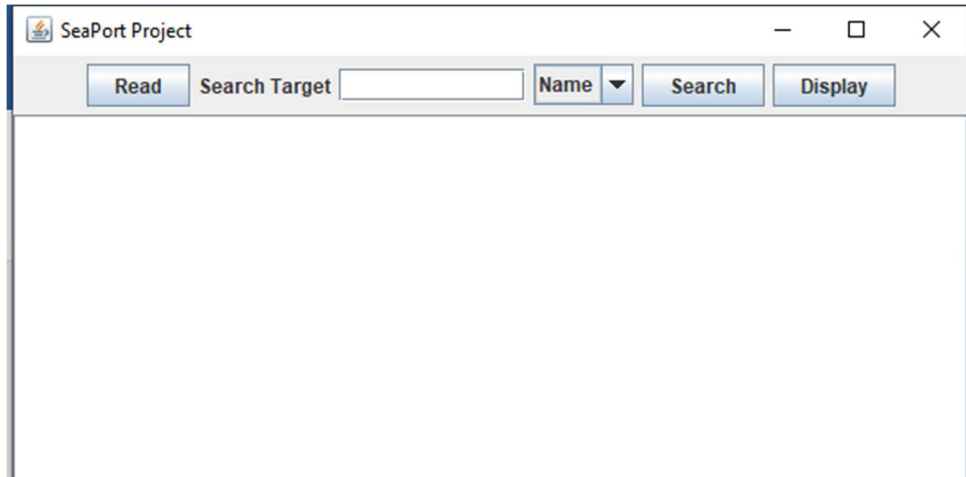
**Note:** How to setup and run the application is same as Project 1. The only difference in GUI is that Project 2 GUI has Sort button and Combo box for Sorting options. The Image of Project 2 GUI looks like this,



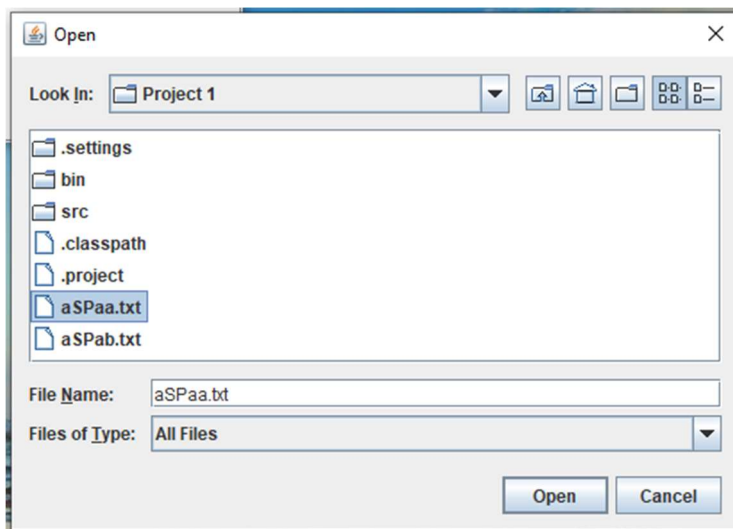
To run the Project 2 users, need to open the SeaPortProgram.java in IDE like Eclipse.

After opening the SeaPortProgram.java user need to press run to running the program.

Upon successful running of program, it will display the GUI screen like the image given below, (All the images below will not have sort button since the user guide would be same as Project 1 till searching functionality).



To read the data file press the Read button and it will open a new window that allows user to choose file from their computer, like this image



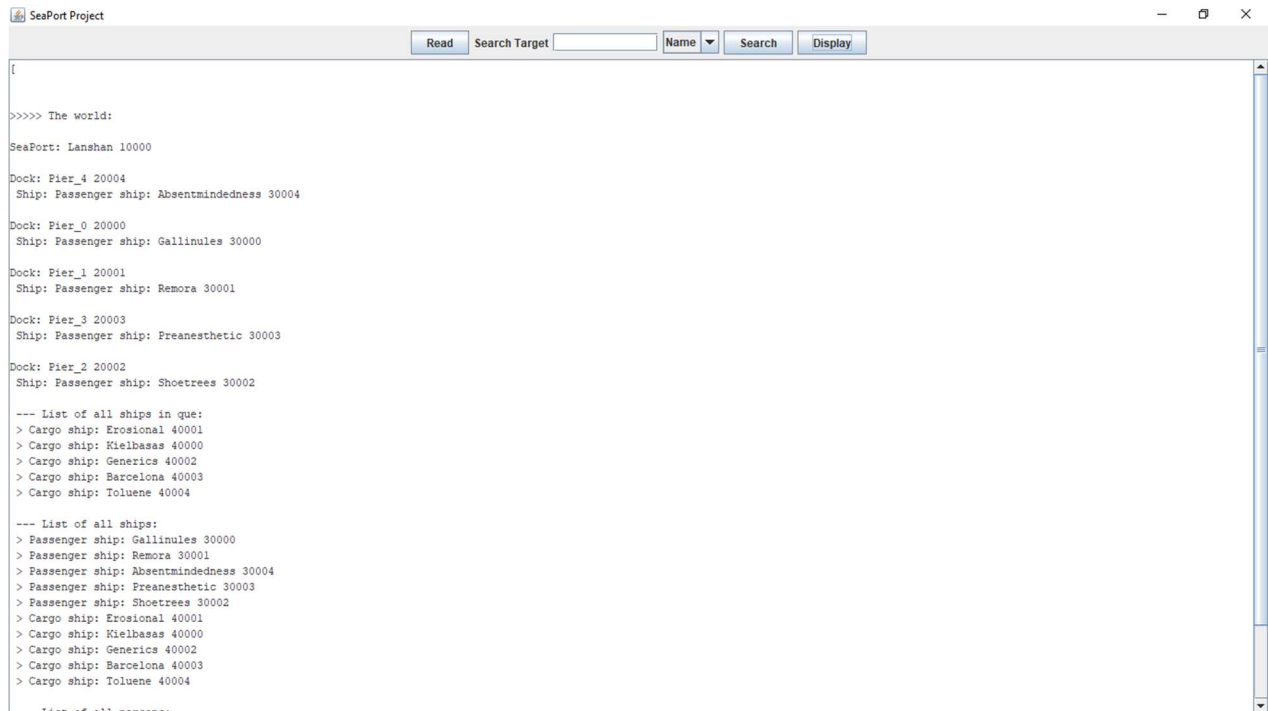
Choose the file that you want to read and press the open will read the all data from file.

Now to display the content of input file on GUI screen press the Display button. Pressing the Display would display all the data on GUI as shown in image below, we have chosen aSPaa.txt file here.



We can resize the window or scroll the scrollbar up or down to see the result.

Below is the image of maximize window.

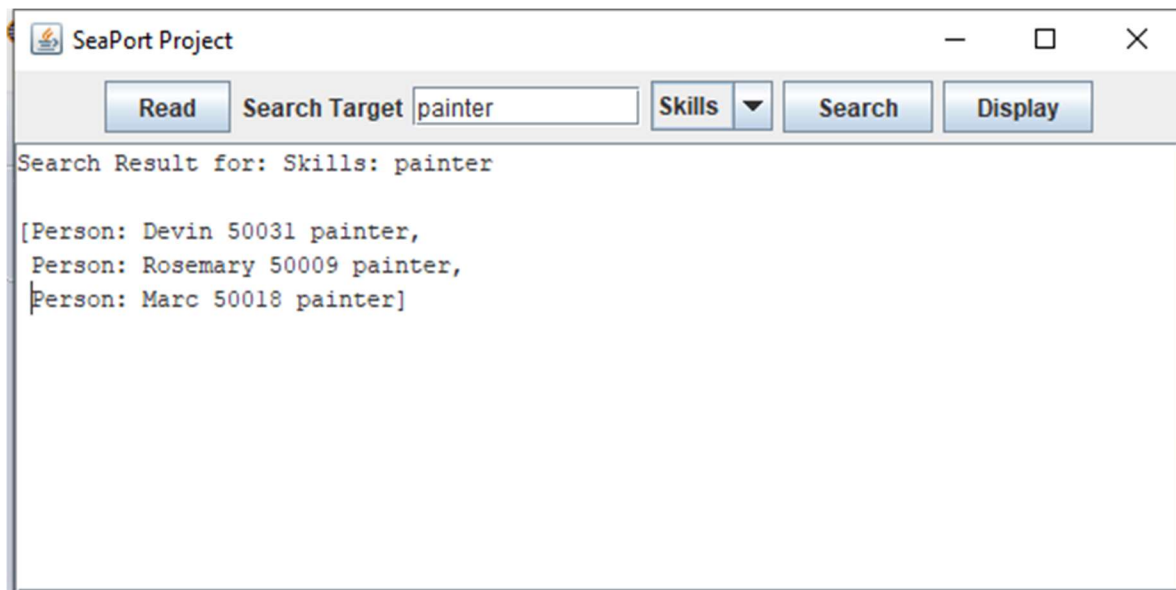


User can Search for any field by choosing a type from Combobox such as,Name, Index or Skill.

And then adding a text in Search Target textfield and press the Search button. For,example Search for a Name: Pier\_1 will display the result shown below.

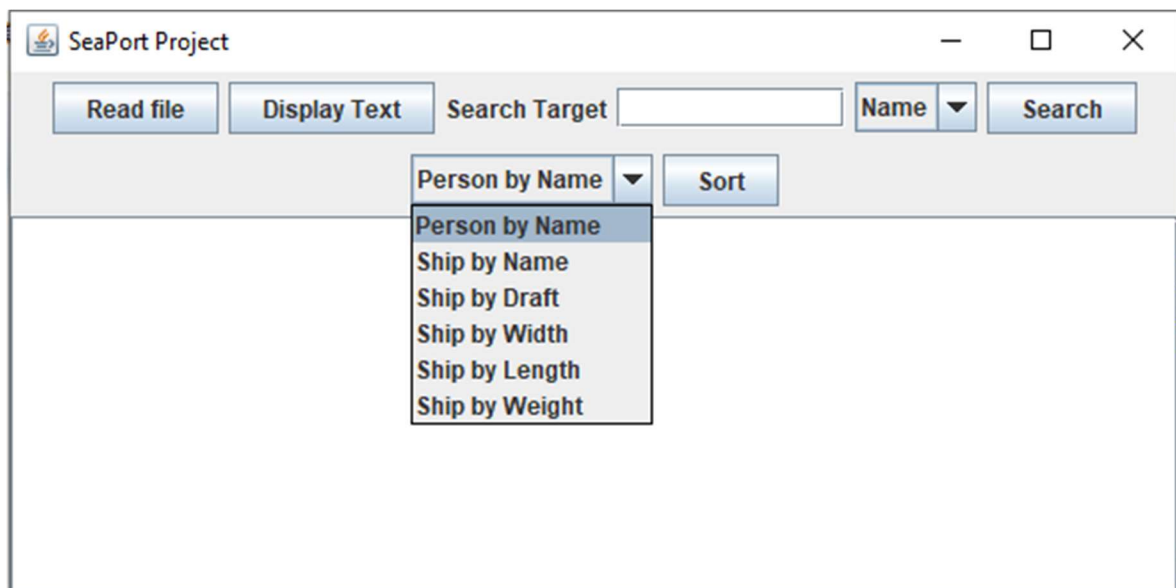


Another search example is Searching for a skill: painter will display all the person with painting skill as shown in image.

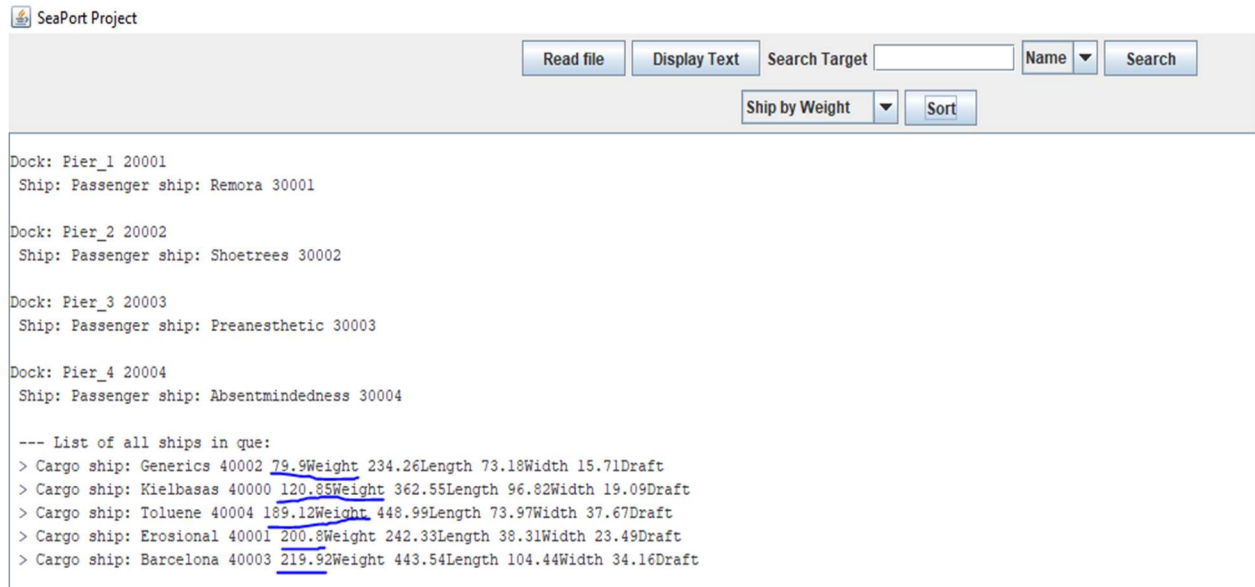


### Project 2 Added functionality:

As Project 2 adds functionality of sort button user can sort for different field by name and sort the ships by different attributes in ques.



For example user can sort the Ships in que by Weight by chossing Ship by Weight from combobox and pressong sort button.

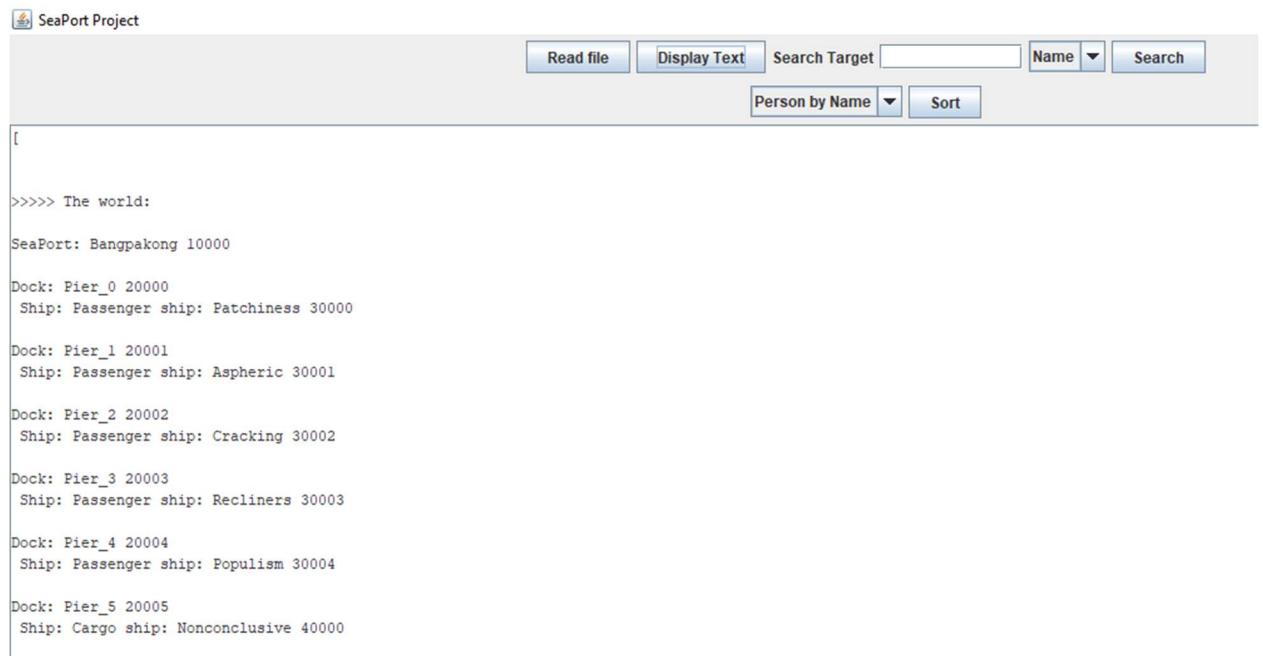


All the ships in above image is sorted by weight in que.

- Assumption:

All the docks in in SeaPort is already sorted, since it is saved in HashMap so sorting function on Docks is not implemeted.

Here is the image of already sorted Docks.



- Test Plan:

I have used 2 data files to test this program aSPaa.txt and aSPab.txt.

aSPaa.txt has only one port whereas, aSPab has more than one Seaport.

I have modified aSPab.txt file. I removed all the line that starts with Jobs since we are not implementing Job untill project 3 or 4. I have attched aSPab.txt file in submission that I used for testing this program.

For testing of testcase 6 to 10 aSPab.txt is used.

Number	Test Scenario	Input	Pass/Fail
1	Searching for a Dock by index	Index: 20004	Pass
2	Searching for Passenger Ship by Name	Name: remora	Pass
3	Searching for something that does not exist.	Name : xyz	Pass
4	Searching for a person with skill stevedore	Skills: stevedore	Pass
5	Searching for a SeaPort by name	Name: Wuchun	Pass
6	Sorting for Ships by Name	Choose Ships by Name	Pass
7	Sorting for Persons by Name	Choose Person by Name	Pass
8	Sorting for Ship by Length	Choose Ship by Length	Pass



9	Sorting for Ship by Width	Choose Ship by Width	Pass
10	Sorting for Ship by Draft	Choose Ship by Draft	Pass

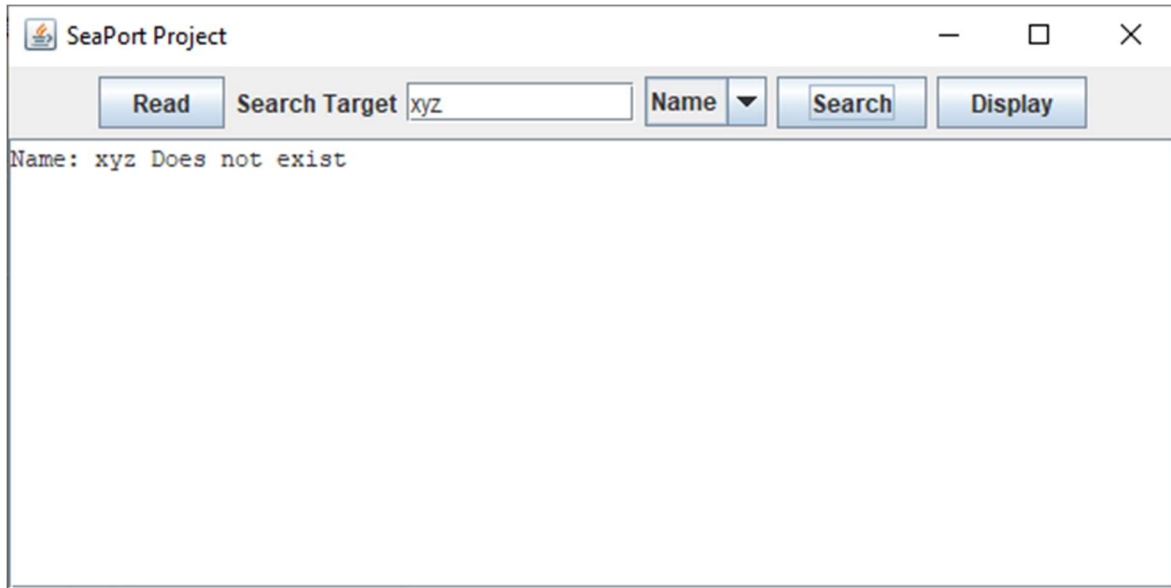
TestCase 1 Screen shot:



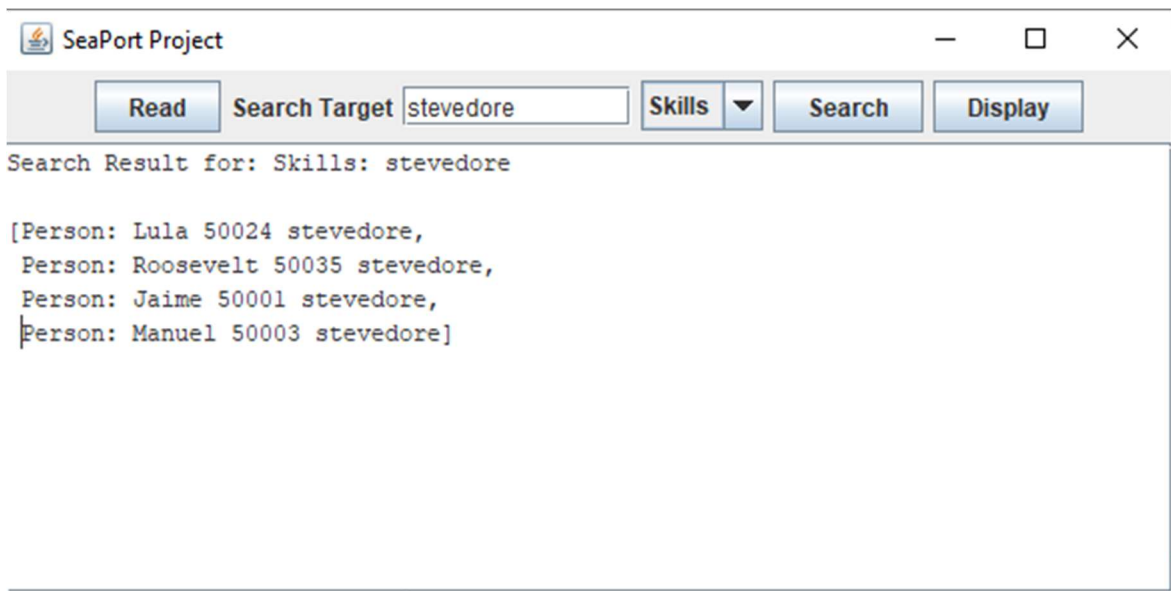
Test Case 2 Screenshot



TestCase 3 Screenshot:



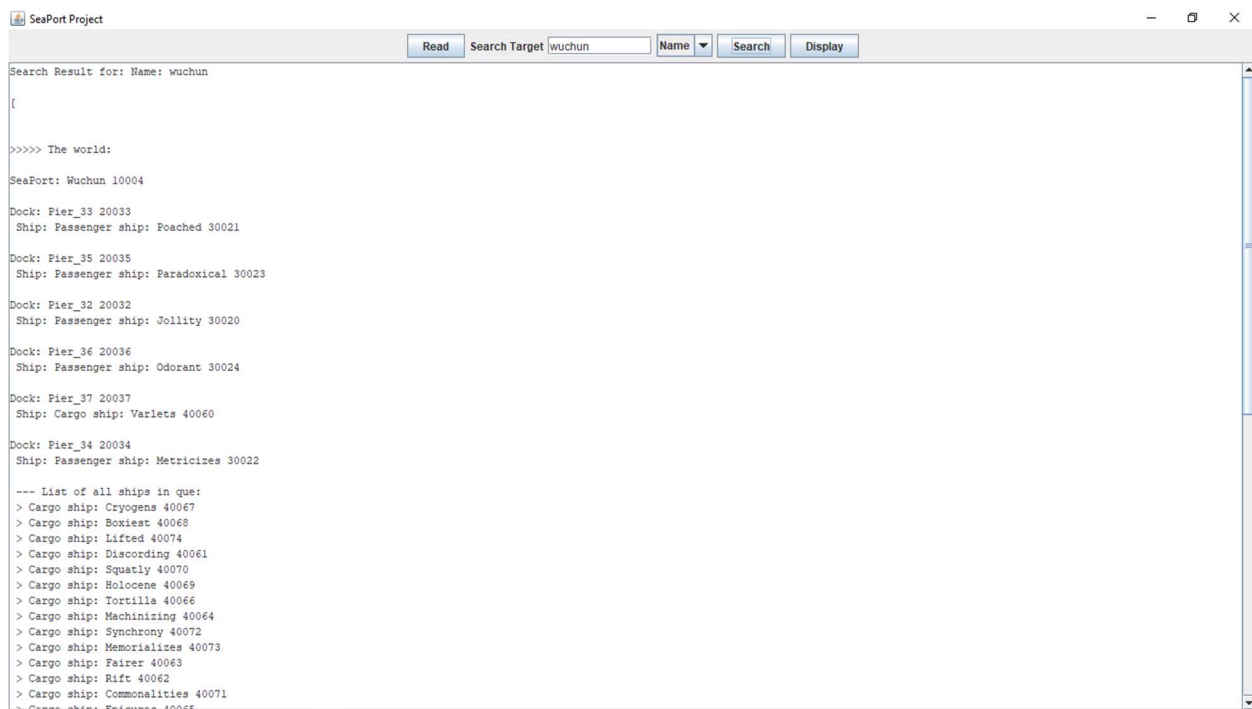
Testcase 4 Screenshot:



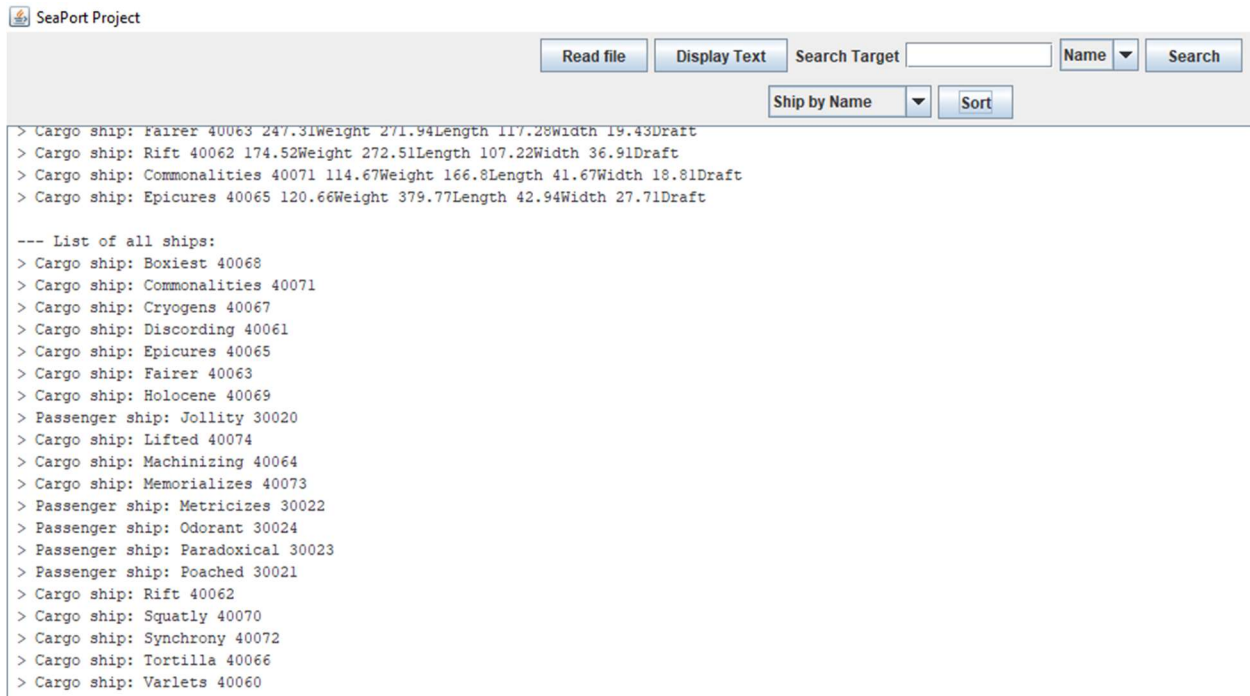
TestCase5 screen shot:



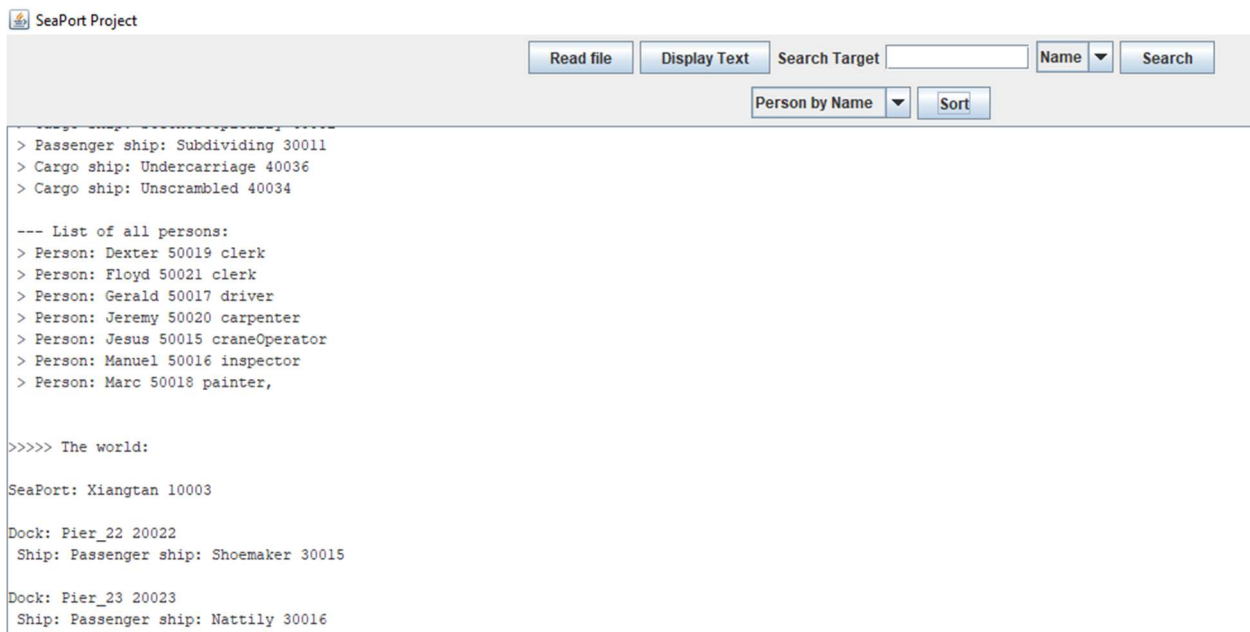
The resized window will look like this,



## TestCase6 screen shot:



## TestCase7 screen shot:



## TestCase8 screen shot:

SeaPort Project

Read file Display Text Search Target  Name

Ship by Length

Ship: Cargo ship: varlets 40060

--- List of all ships in que:

- > Cargo ship: Tortilla 40066 195.04Weight 108.17Length 121.38Width 20.25Draft
- > Cargo ship: Cryogens 40067 150.34Weight 138.39Length 60.2Width 44.05Draft
- > Cargo ship: Lifted 40074 236.94Weight 140.15Length 34.5Width 27.18Draft
- > Cargo ship: Memorializes 40073 125.11Weight 148.86Length 124.55Width 22.83Draft
- > Cargo ship: Commonalities 40071 114.67Weight 166.8Length 41.67Width 18.81Draft
- > Cargo ship: Holocene 40069 209.23Weight 182.71Length 54.44Width 24.59Draft
- > Cargo ship: Machinizing 40064 216.47Weight 207.94Length 127.61Width 42.77Draft
- > Cargo ship: Squatly 40070 141.18Weight 235.01Length 89.58Width 33.06Draft
- > Cargo ship: Discording 40061 130.52Weight 256.1Length 56.28Width 42.84Draft
- > Cargo ship: Fairer 40063 247.31Weight 271.94Length 117.28Width 19.43Draft
- > Cargo ship: Rift 40062 174.52Weight 272.51Length 107.22Width 36.91Draft
- > Cargo ship: Boxiest 40068 110.66Weight 346.47Length 80.98Width 22.7Draft
- > Cargo ship: Epicures 40065 120.66Weight 379.77Length 42.94Width 27.71Draft
- > Cargo ship: Synchrony 40072 216.91Weight 437.29Length 44.17Width 23.67Draft

## TestCase9 screen shot:

SeaPort Project

Read file Display Text Search Target  Name

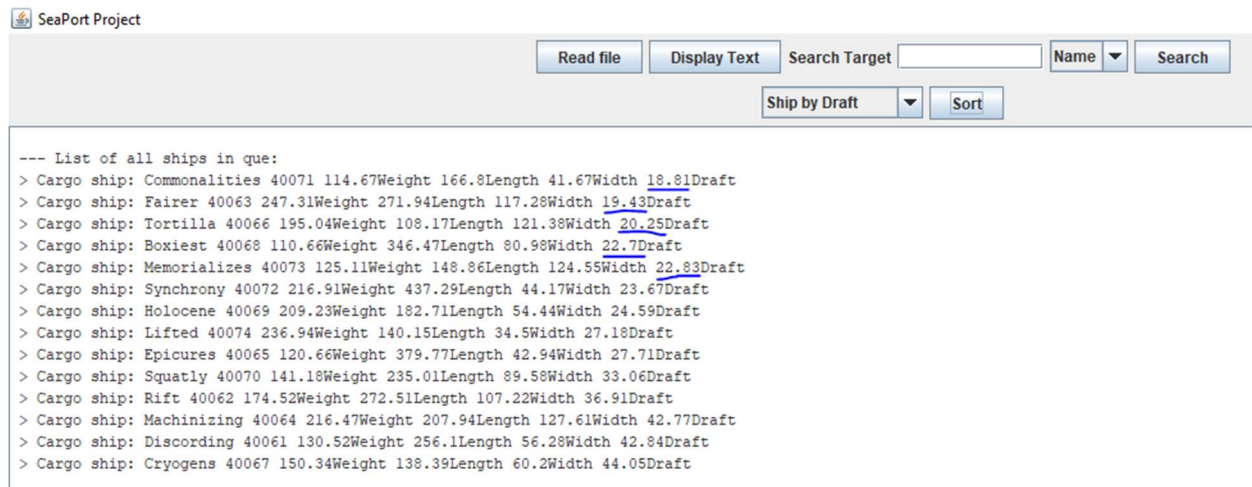
Ship by Width

Ship: Cargo ship: Varlets 40060

--- List of all ships in que:

- > Cargo ship: Lifted 40074 236.94Weight 140.15Length 34.5Width 27.18Draft
- > Cargo ship: Commonalities 40071 114.67Weight 166.8Length 41.67Width 18.81Draft
- > Cargo ship: Epicures 40065 120.66Weight 379.77Length 42.94Width 27.71Draft
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- > Cargo ship: Tortilla 40066 195.04Weight 108.17Length 121.38Width 20.25Draft
- > Cargo ship: Memorializes 40073 125.11Weight 148.86Length 124.55Width 22.83Draft
- > Cargo ship: Machinizing 40064 216.47Weight 207.94Length 127.61Width 42.77Draft

TestCase10 screen shot:



- Not Implemented:

Not Applicable.

- Lesson Learned:

### Project 1:

During working on this project, I realized that How I can connect the idea of object-oriented programming with the real world. I learned the use of inheritance so that we can reuse the code, and all the class is a type of a Thing (Thing.java) so that in future projects we can compare and sort them. I also learn that how to select file using JFileChooser in javafx.

In this project I can more improve on displaying my search result.

### Project 2:

During working on Project 2 had a very hard time figuring out how to do sorting in HashMap. After lot of trial and error finally implemented sorting on HashMap.