

PolyU COMP2021 Assignment 1

Introduction

Goal: Get you warmed up with the use of Java given classes such as Vector, List, and Set and get you learn how to read Java API documentation by yourself.

You are given 5 sets of files:

- **Assign1.java (hand in this file; you shall work on this file)**
- Assign1Interface.java (the things that you shall implement are all listed as methods in this file)
- javadoc (show the things that you need to implement in HTML format)
- Assign1Test.java (the grading file; we will run this file and some other similar files to grade your assignment)
- ReadMe.docx (this file)

That is, hand-in only 1 file, Assign1.java, through learn.polyu.edu.hk assignment box.

Before implementing, you must understand what is meaning of each method that we require you to implement. You can either

- read the **Assign1Interface.java** directly or
- open the **index.html** file of **javadoc** folder using a browser

Deadline: 2 Oct 2015, 11:00am

Late Penalty

late x day: your score = raw score * (100 - 20x)%

To begin with:

At console or in Eclipse (The Java Compiler compliance level is 1.7),
javac Assign1Interface.java Assign1.java Assign1Test.java

Then

java -cp . Assign1Test

Before you start working on the assignment, you shall see:

```
*****
* Start testing Level 1
* You have passed 3/3 cases of level 1
* End testing Level 1
*****
*****
* Start testing Level 2
* insertToListHead() Failed
* insertToVector() Failed
* insertToSet() Failed
* removeLowestValue() Failed
* You have passed 0/4 cases of level 2
* End testing Level 2
*****
*****
* Start testing Level 3
* insertToListNTimes() Failed
* removeFromListHead() Failed
* getOddIndexElement() Failed
* findRangeMax() Failed
* You have passed 0/4 cases of level 3
* End testing Level 3
*****
*****
* Start testing Level 4
* averageOfSubListOfIntegers() Failed
* getObjectPositionOfList() Failed
* sortedSpecifiedList() Failed
* listComparing() Failed
* You have passed 0/4 cases of level 4
* End testing Level 4
*****
```

If you have finished your assignment correctly, you shall see:

```
*****
* Start testing Level 1
* You have passed 3/3 cases of level 1
* End testing Level 1
*****
*****
* Start testing Level 2
* You have passed 4/4 cases of level 2
* End testing Level 2
*****
*****
* Start testing Level 3
* You have passed 4/4 cases of level 3
* End testing Level 3
*****
*****
* Start testing Level 4
* You have passed 4/4 cases of level 4
* End testing Level 4
*****
```

Requirements

- Don't modify other files except Assign1.java
 - Otherwise you will get 0 marks
- Make sure your Assign1.java can be compiled with other files before submission, i.e., when you run "javac Assign1Interface.java Assign1.java Assign1Test.java" command, there will be no errors. Some warnings are fine.

Grading policy

Two measures:

- 1) Number of test cases passed (primary)
- 2) Submission time (secondary)

In this assignment, we have 4 levels for you to attack. The number of methods for each level you need to implement is

Level	Number of methods
L1(we have provided you already)	3
L2(easy)	4
L3(middle)	4
L4(difficult)	4

For levels 2, 3 and 4, if you passed some of the cases, you can get the corresponding score in the following ranges:

L2	score
Pass 1 case	1-20
Pass 2 cases	21-39
Pass 3 cases	40-49
Pass 4 cases	50-59

L3	score
Pass 1 case	60-64

Pass 2 cases	65-69
Pass 3 cases	70-74
Pass 4 cases	75-79

L4	score
Pass 1 case	80-84
Pass 2 cases	85-89
Pass 3 cases	90-94
Pass 4 cases	95-100

When students have passed the same number of cases of the same level, their scores will be differentiated by the submission time.

Example 1: if only Tom and Jerry can reach L4 and passes all cases.

If Tom is submitted earlier than Jerry, then Tom gets 100 while Jerry gets 95.

Example 2: if Peter, Paul, and Mary can reach L3 and passes 2 cases.

If the submission time is: Tom (fastest) < Paul < Mary (slowest), then Tom gets 69, Paul gets 67, and Mary gets 65.

Note: you must pass all cases in Level i before you can try Level i+1. E.g., if you finish two test cases in Level L4 but skipped all other levels. We regard you as passing 2 cases in Level L2 only.

Hint: Whenever you finish 1 case, submit it to learn.polyu.edu.hk first to grab the best submission time. Then, you can go on to another case in the same or next level.

Plagiarism: It is easy to detect the similarity of source files, and cases will be strictly handled according to the University's regulation, so please don't risk doing that.

Questions?

Ask your teaching assistant during the lab, ask Eric during lecture breaks.