

Hi everyone,

Here are some heads-ups on programming project # 1. You will deploy some Java language features that you may not have used in your code up to this point. Our general approach to implementing the data structures in this course will be to mimic the standard Java API. I have programming tips handouts 2 and 3 on Moodle. For now, you only need to focus on the features that you will use in the current programming project rather than try to understand all of it. You can read about additional features when you need them in future programming exercises.

1. You will need to learn how to pass command line arguments into a program.

Read "Programming Tips 2" handout items 3 and 4, if you are unfamiliar with this.

2. Learn how to define a functional using a lambda function. A lambda function is a function without a binding (anonymous function). Albeit, we can associate a lambda function with a variable. Lambda functions require the Function package. Read "Programming Tips 3" item 2 up to the discussion on the Comparator interface. You don't need to read about other functional interfaces, for now. You will need to use this feature to define the comparator that will be used to compare entries of the heap when inserting a new item or removing an item.

3. If you have forgotten how to do text file input/output, you can also read "Programming Tips 3" item 1. You don't need to read the rest of those handouts until we need those features. I have supplementary notes on Moodle for the insert, delete and rebuild algorithms for a heap. They are written in pseudo-code and you will need to implement them in Java. You will write the main and two additional functions in PQParser.java to get the program to work.

I will do office hours tomorrow and all of next week so don't hesitate to come by if you want us to discuss these new features or want me to give you an overview on how everything should work and additional programming suggestions. I assuming a lot of this will be new to you. You really want to understand how to use these features. You can also see Rohan if you are unable to make my office hours. I have discussed how these features work with Rohan so he should be able to explain them to you. We will use them repeatedly in the next two programming projects. So understanding them now will be useful.

Regards,

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