

## DEPARTMENT OF COMPUTER SCIENCE

### Programming Competition Friday, February 7, 2014 5:00 to 7:30 p.m.

\*\*\* **PLEASE DO NOT** \*\*\* start reading/solving any of the problems in your folder until AFTER the countdown clock has appeared in the upper left corner of your PC<sup>2</sup> Team window. The competition officially starts only after everyone has read and completed the first three steps below and the judges have started the countdown clock.

1. Participants have been assigned a new shell account. The login name and password are below. The judges do not know which account corresponds to which team. Do not put any information in your programs which would identify you.
2. Log into your shell account. Note that in your home directory, there are three subdirectories, one for each problem: **A, B, C**. These are your working directories in which you can write and test your programs for each problem. Each of these subdirectories contain sample input/output data files for each of the three problems. For example, directory **A** contains input/output data files **A.in** and **A.out**, respectively. A configuration file required by PC<sup>2</sup>, **pc2v9.ini**, is also located in your home directory. You should not remove these files. If you accidentally overwrite or erase them, you can find copies in **/local/pub/cs/apics**.
3. After logging into your shell account, you must start the PC<sup>2</sup> Team software using the command "pc2team". This will display a "PC<sup>2</sup> Login" window. Enter the same name and password that you used earlier and press the "Login" button. Keep the resulting PC<sup>2</sup> window running at all times during the competition. If you accidentally close it, restart it with the command "pc2team", and login as before.



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Note: There is a change from previous team competitions--problems will be identified with letters, and Participants will be identified with numbers.

4. During the competition, you may use printed reference materials, such as textbooks and manuals. You may access Java docs; however, you are not permitted to access the World Wide Web or other systems during the competition. You may also bring in UP TO 25 PAGES OF NOTES (code, and it can be double-sided). You may use the printer in the room if you need a printout. You can access the Java API locally at:  
<http://www.cs.mun.ca/jdk1.6>
5. There are three problems to be solved within two and one-half hours. The allowable languages are: Java or C. The problems are labeled Problem A, Problem B, and Problem C.
6. Each problem has a corresponding sample input file which contains a few test cases for your program to solve. The sample input file and its corresponding sample output are listed in the problem description. Copies of the sample input files are in your home directory, as mentioned above. In addition, the judges have another data file which will be used to see if you have correctly handled other cases, as well.
7. Note that standard input redirection is to be used for all problems, for example, “java problem A <A.in”. Sample Java programs that read from standard input are available in **/local/pub/cs/apics**.
8. You may complete problems in any order (not necessarily alphabetical).
9. When you have a problem solved, use the PC<sup>2</sup> Team software to submit the problem to the judges:
  - Click the “Submit Run” tab.
  - Select the problem A, B, or C.
  - Select the language used.
  - Select the Main source file (i.e., .java or .c) containing the main program. Add any additional source files, below (never include .class files or data files).
  - It is a good idea to use the “Test” button to test your program within the PC<sup>2</sup> environment before submitting it. After pressing the “Test” button, select the test file to be used for input.
  - If the test was successful, press the “Submit” button to send your program to the judges for evaluation.
  - Press “Yes” if the information in the "Confirm Submission" dialog box is accurate.
  - A “Run Received” dialog box should be displayed.

You can continue solving other problems while waiting for the judges' response.

10. The judges will respond in the order that the programs are received. You will receive one of the following eight responses via PC<sup>2</sup> :

Yes

No - Compilation Error

No - Run-time Error

No - Time-limit Exceeded

No - Wrong Answer

No - Excessive Output

No - Output Format Error

No - Other - Contact Staff

You should receive judges' responses via a "Run Judgement Received" popup window indicating the success or failure of the run. Use the "View Runs" tab to check the status of previously submitted runs.

11. If you have questions regarding a problem, you can ask for clarification from the judges with the "Request Clarification" tab in the PC<sup>2</sup> Team software window. Select the relevant problem, enter your question and press the "Submit Clarification" button.
12. Contestants are not to converse with anyone except personnel designated by the contest director. Systems support staff advise contestants on system-related problems such as explaining system error messages.

### Contest Scoring

A problem is solved when it is accepted by the judges. The judges are solely responsible for accepting or rejecting submitted runs. The judges are empowered to adjust for or adjudicate unforeseen events and conditions. Their decisions are final.

You will be ranked according to the most problems solved. Participants who solve the same number of problems are ranked by the least total time. The total time is the sum of the time consumed for each problem solved. The time consumed for a solved problem is the time elapsed from the beginning of the contest to the submittal of the accepted run. There is no time consumed for a problem that is not solved.