Final Exam Study Guide

Coding, Thursday, December 4, 6 - 7:15 PM
Building 15, 3rd floor, RF-Smart Lab, Room 3130

MCQs, Tuesday, December 9, 6 - 7:50 PM, Lecture room

- ☞ If possible, arrive a few minutes early, login to a desktop and your Canvas (Microsoft Authenticator app maybe needed).
- ☞ Feel free to bring blank papers for scratch work.
- ☞ Feel free to use earplugs to avoid getting distracted.

1 Coding, 50 points, 2 - 3 methods, 1 extra-grade method worth 10 points

- ☞ ***It is strongly recommended that you visit the lab and try out the practice exam once.***
- ☞ If possible, arrive a few minutes early, login to a desktop and your Canvas (Microsoft Authenticator app maybe needed).
- ☞ Feel free to bring blank papers for scratch work.
- ☞ Feel free to use earplugs to avoid getting distracted.
- ☞ Use IntelliJ.
- ☞ Just like your homework projects, you will be asked to upload a specific file (not the whole project) to Canvas.
- ☞ Your canvas login will be required for downloading the exam and uploading the solution. Make sure you know how to log into Canvas.
- ☞ Check your Canvas submission carefully, and then logout from your desktop.

This coding exam will be worth 50 points. You will be asked to complete 2-3 methods. Code outline and tests will be given to you, like HW problems. Like the HWs, you need to download the package, complete coding, test, and then upload your code to Canvas. Multiple submissions are allowed. Your latest submission will be graded.

Cheat sheets. *You can bring at most five* 8.5×11*-sized cheat sheets (handwritten/typed out on both sides). Calculators are allowed.*

Syllabus. **Binary Trees.** *You need to code auxiliary data structures such as stack, queue, etc, if needed, or, you can use the built-in data structure classes in Java.*

Practice problems. Pull from Git. The problem is on maintaining a binary tree of student records. Complete the methods given to you. The method signatures should explain to you what to implement. Please try yourself before you look for solutions elsewhere.

Alert. ***Absolutely NO collaboration and/or copying from the internet during the exam will be allowed. This is a closed notes exam. LANSchool will be used to monitor the desktops in the room.***

Alert. ***Use the restroom before the exam starts. You will need to get permission from the instructor if you need to use the restroom during the exam.***

2 On-paper, in-person MCQ Exam, 20 questions, 50 points, 2.5 points each, 2 extra-grade questions

This is a multiple-choice question, in-person exam. The syllabus for this part covers everything covered in this course, so the pre-midterm material is included. The problems will be similar to the quizzes and practice problems (available on Canvas as practice quizzes). Make sure that you understand the concepts we discussed in class so you can answer true/false questions. Refer to the slides when you prepare for the test. Also, make sure you can operate on data structures by hand. Memorize (put on cheatsheets) the time complexities of the algorithms and data structure operations.

Cheat sheets. *You can bring at most five* 8.5×11*-sized cheat sheets (handwritten/typed out on both sides). Feel free to bring calculators.*

Alert. ***Absolutely NO collaboration and/or copying from the internet will be allowed. You cannot tab out from the quiz (the exam) after you start it. Canvas will record in its log if you do so. You are not allowed to use any IDE, command-line interface, or any in-browser online compiler for this exam. Your desktop will be monitored using a LanSchool.***

Alert. ***Use the restroom before the exam starts. You will need to get permission from the instructor if you need to use the restroom during the exam.***