

Homework Help

Q: Is GitHub classroom mandatory?

A: No. You do not have to make a GitHub Account. It is fine if you do not use it at all.

Q: If my program runs with Valgrind without errors on GitHub classroom do I still need to test it on omega or Ubuntu?

A: No. You do not. GitHub Codespaces have Valgrind installed. If your program runs there with Valgrind without any errors in the Valgrind report, you are all set.

Q: How should I ask a question to the professor/TA?

A: In an email, include the class number (Professor Stefan teaches classes other than 3318). Your student ID is not necessary. For your question, be specific. Do not ask vague questions (e.g., “How do I do this?”) or ask us to check your homework.

Example Questions:

- I’m not sure if I solved the TC for this problem correctly. Here’s my thought process...
- I don’t understand insertion sort. Specifically, why do we start at index 1 instead of index 0?

Q: I want to email my TA. However, I see two emails: a @mavs and a @uta. Which one do I choose?

A: Choose the @mavs email. Choose the one that has a profile image, if there is one. If you are in doubt, send an email / Teams message to both emails. Be sure CC/include another person to ensure that your question will get answered.

Rationale: TAs are students, so they primarily use their @mavs account. They can access their work account (@uta), but that would require using incognito mode (so they won’t have to sign out of their student account). If you send an email to their work account, it is 99% likely it will go unanswered.

Q: Can you check my code to see if it is correct? It’s not working for some reason.

A: We cannot check your code. Finding a bug (especially in unfamiliar code) can be very time consuming – and we cannot do this for all students. Instead, tell us where you think

the problem is and why. Ideally, also tell us what you did to debug this code. We can provide feedback on how you can improve your debugging techniques.

Example Questions:

- Can you help me debug my code? I think it has something to do with my foo() function. I keep getting a stack smash error.

Rationale: As a programmer, you should be able to debug by yourself. There are, of course, tough bugs that may require an additional pair of eyes. But, at the end of the day, you are a student, and we are expecting code that YOU wrote.

Homework Grading

Q: I wrote a lot of code, and I think I implemented the homework. So, even though my code segfaults / doesn't compile, why do I have such a low grade? Why didn't I get any partial credit?

A: What we can't run, we can't grade.

Rationale: It would be very difficult (and tedious) to grade without running the code (how else can we find bugs). We could edit your code to make it run, but that would mean having to edit everyone else's code – which is not fair to the ones who submitted working code.

Q: Why is it necessary to use Valgrind? What's so bad about memory leaks? And what's so bad about getting a compilation warning?

A: In the real world, companies want top-notch code that works. Code with memory leaks are inefficient (CPU will be trying to juggle the memory). Also, code with memory leaks or compilation warnings are insecure and vulnerable: they make life easy for hackers.

Exams

Q: How do I study for this class?

A: Do the weekly quizzes and try to do well on the homework. Also, try to have a good grasp on the algorithms and understand how to solve time complexity.

Q: What format is the exam?

A: There are no, or very little, multiple-choice questions. There is usually 1 question where you have to write code. The rest of the questions are fill-in-the-blank, with maybe 1 draw-a-diagram.

Miscellaneous

Q: Is it helpful to go to the TA or professor? Can't I learn this from YouTube?

A: You could use YouTube, but there is no guarantee that you will understand it. Also, you may spend hours trying to understand something when a TA/professor could explain it in 15 minutes. Also, interacting with your TA/professor can be rewarding.

Rationale: Professors hear about research opportunities and things of that nature. Talking to professors can help open those doors. Also, TAs are students themselves. They can give you advice on which professor to take, how to study for other classes, etc.