Welcome & Ex0 - Reptilian Setup

COP4600



Welcome to OS Discussions!

- Discussion attendance is both mandatory (for on-campus students) and highly encouraged.
- We will assign a new exercise and/or project, and go over them.
- Projects and exercises are completely solvable without what we tell you in discussions, but discussions will be are very, very helpful to you.
- Missed one? UFOL discussions are recorded.

Quizzes

- You will be given a quiz on the previous week's lecture material.
 Quizzes are short; generally 3-5 MC-style questions.
- Quizzes will be on canvas, but in class. Bring a (charged) laptop with Respondus Lockdown Browser installed. A calculator is nice to have.
- Handwritten paper notes are fair game to use on quizzes! Good notetaking is good practice, and will make your life a lot easier building a cheat sheet for the midterm/final.

Assignments

- Each discussion, we will assign and go over a new Exercise/Project.
- Projects and major exercises may have a supplementary set of slides to go with them (like this one!)
- Start assignments early! Do not leave them for the weekend they're due.
- Best case scenario: you complete them early, and they'll be out of your way.
- Worst case scenario: you have extra time to program, troubleshoot, test, write reports, and come to office hours if necessary.

Assignment Grading and Submission Policy

- Exercises and Projects are "due" on Fridays, but you can submit by Sunday midnight (11:59 PM) for **no penalty**. This will not apply to extensions.
- The functionality of your assignments will usually be autograded by testing scripts. Other work will be graded by the TAs. If you have a grading issue, please contact the TA that graded it within 1 week of the grade being published.
- Each assignment is very explicit about how we want you to format and submit them.
- If an exact name for the file(s) you are submitting is not given, name them something that makes sense.
- Ex: is part one of Ex3 asking for a screenshot?
- Name it something like: Ex3P1.png

Al, Large Language Models, and StackOverflow

- This course incentivizes research, and you are allowed and encouraged to use external resources and documentation to help you solve the assignments.
- Cite your sources in your reports or in your assignment comments, and use common sense when actually using those resources.
- OK: Asking ChatGPT to help write you a helper function that performs some kind of string operation or bit manipulation.
- Not OK: Pasting an entire project doc into an LLM and asking it to solve the project for you.
- Online forums and AI are tools. IDEs and debuggers are also tools. Using tools honestly and efficiently makes you a better programmer.
- Fact checking your sources is your responsibility.
- Al models can lie and will be confidently wrong.

Office Hours

- Can be very useful to you! It is encouraged that you make good use of them.
- Come early! On the weeks that stuff is due, lines will form and you might not get to receive help...
- Before coming to office hours, please put forth an honest effort to solve your issue on your end first.
- We will help as much as we can, but we cannot solve the assignments for you.
- Please join the MS Teams channel, post if you have any questions, and see if your question has already been answered before coming to OH.

What is Reptilian?

- Reptilian is a linux-based OS with the Ubuntu and Android userspace environments built on top of it.
- You will be running Reptilian in a virtual machine (VM), and remotely logging into it with ssh. How you ssh into Reptilian depends on your host operating system (ex: Windows, MacOS, etc).
- All programming assignments in this course will be tested on Reptilian and are graded based on how they run in Reptilian.

Ex0 - Reptilian Setup

(Go over pdf, and demo functionality).

Ex0 - Reptilian Setup (cont.)

- Everything works and you can successfully ssh? Perfect!
- After you complete the assignment and successfully run make on the kernel, take a snapshot in VirtualBox. This will probably save you in a couple weeks.
- Having issues? Troubleshooting steps are on the canvas assignment page.
- Everyone, every semester, gets it working eventually. Keep at it, play with the network settings, Google your issues, and come to office hours if necessary.



General Tips

- Back up any code you create by taking it out of Reptilian and put it somewhere safe (like a Google Drive or other cloud service). If your VM bricks and you revert to an early snapshot, you will lose all of your progress. If you 'rm' all of your code, it is gone, and unrecoverable. Losing your code late into project development is not a valid excuse!
- Snapshots take up a lot of disk space, and so does Reptilian itself. Please make sure that you have at least 25 GB of free space for this course, preferably double that.