CS 1XC3 Lab 1 : Unix and the Command Line Environment

Jan. 23rd - 27th, 2023

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1 Getting Set Up

We will be using GitHub to manage assignment and lab submissions this semester. If you don't have an account already, you'll need one!

- Go to `https://github.com` and sign up for an account if you don't have one already. Fill out your profile to the degree you find acceptable.

- Sign up for GitHub Student Developer `https://help.github.com/en/github/teaching-and-learning-with-github-education/applying-for-a-student-developer-pack`

  - This pack has way more stuff than we'll need for this course. People have changed the world with far less.

- Using the following tutorial, create a private repository named CS1XC3

  - `https://docs.github.com/en/github/getting-started-with-github/quickstart/create-a-repo`

- Using this tutorial, add the TA of your lab session as collaborator. You can ask TA's GitHub user name in person.

- Create a directory within your repository named "L01". As you complete the deliverables in this lab exercise, commit the files to your repository using the specified file names.

- *When work is not committed, from marking it will be omitted!*

2 Introduction: Text Based Games

Text based games were all the rage in the 70's/80's, and retro gaming is in! These games where operated entirely through Command Line Interfaces, no fancy graphics required. There were many text based games, but one of the most popular was the **Zork** series (which you can play online for free `http://textadventures.co.uk/games/view/5zyoqrsugeopel3ffhz_vq/zork`). Give it a try some time!

3 Activity: Let's Play Terminus!

Terminus is a text based game, developed at MIT, designed to teach beginner commands (common to Un*x shells). The game is freely available online at `https://web.mit.edu/mprat/Public/web/Terminus/Web/main.html`

NOTE read the instructions when you start the game carefully. They introduce the following commands:

- **ls** lists the *contents* of your current directory

- **cd** is used to move to a change directories (use **cd ..** to move backwards)

- **less** will print out the contents of a file

- **pwd** will show the file path of your parent working directory (i.e the directory you're currently in)

4 Objectives

4.1 Find All The Commands [10 pts]

- As you progress through the game, you'll encounter new commands. Think of them like Pokemon and try and catch them all!

  - Make a list of all the commands you find with a short description of what they do. Save these to a file named `commands.txt`, in the `lab01` directory of your `CS1XC3` repository. Commit your work when complete.

4.2 Draw A Map of The Area [10 pts]

Graphviz is an extremely powerful tool for creating diagrams and flow charts. Let's use it to make a map of the locations in Terminus.

- You can get Graphvz here, or you can use the browser-based version here.

- Either way, create a full map of all the areas in Terminus, take a screenshot, and name it `map.png`. Trim the screen shot so that only the map is visible.

- Commit your map to your `L01` repo directory.

4.3 Trivia Time! [6 pts]

Answer the following questions:

- Describe the differences between Linux and Windows (or MacOS) based on your own experience with them so far.

- How many sign boards did you see on your way to Paradise?