



Assignment 1*

Summary

When you enrolled in this class, you were given an account on the network of computers in the Computer Science Department of Hunter College. This account entitles you to use the computers in the lab, either by being physically in the lab or by connecting to them remotely from outside of the lab, in the comfort of your home for example. These computers are run by an operating system known as *Ubuntu Linux*. The word “Ubuntu” is

“an ancient African word meaning ‘humanity to others’. It also means ‘I am what I am because of who we all are’. The Ubuntu operating system brings the spirit of Ubuntu to the world of computers.”¹

The Ubuntu Linux operating system is an example of a *free and open source* operating system. Ubuntu is a descendant of the original UNIX operating system, which also started out as an open source operating system. The objective of this assignment is to get you to understand the meaning of the term “free and open source” and what larger implications it has. By successfully completing this exercise you will be able to explain to others the differences between free and open source software such as Ubuntu, and proprietary and closed software such as Microsoft Office®. You will also learn how one can be a part of a community that collaborates to develop and maintain such free and open source software.

Because the phrase “free and open source software” is a mouthful, like so many other things, it is known by an acronym: *FOSS* (sounds like “floss” without the “l”.) Some FOSS projects have a humanitarian aspect to them, in the sense that their purpose is to make the lives of people better in some humanitarian way. For example, *Sahana Eden* (<http://eden.sahanafoundation.org/>) is a flexible open source humanitarian platform with a rich feature set designed to provide effective solutions for critical humanitarian needs management, either prior to, or during, a crisis. Such projects are called *HFOSS* projects (pronounced Aych-foss.) There are many such projects in development around the world.

The primary activities in this assignment are reading selected short articles and answering a few questions based on those readings.

Instructions

Readings

1. Read the Ubuntu story: <http://www.ubuntu.com/about/about-ubuntu>.
2. Read about the Ubuntu philosophy: <http://www.ubuntu.com/about/about-ubuntu/our-philosophy>
3. Read the Free Software Foundation’s synopsis of free software: <http://goo.gl/gGWX0W>

*This is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/4.0/>.

¹<http://www.ubuntu.com/about/about-ubuntu>.



Questions

Your answers to these should show that

- you read the articles,
- you understood the articles, and
- the articles might have spurred your own thoughts.

A good answer to the open ended questions is a short but complete one. You will have to follow certain links in one or more of the above articles to answer some of these questions. If you think there is more than one correct choice for the multiple choice questions, circle all that you think are correct, but circling an incorrect choice gives you a zero for that question.

1. (4 pts) What was the name of the very first version of Ubuntu?
 2. (4 pts) What made Ubuntu different from the commercial versions of Linux that existed before it?
 3. (4 pts) Who was the founder of the company that created Ubuntu, and what is that company's name?
 4. (4 pts) Look at the page <https://www.ubuntu.com/community/mission#community>. State three different ways in which a person can contribute to the Ubuntu community.
 5. (4 pts) Who is the founder of the Free Software Foundation and in what year was it founded?
 6. (4 pts) Which of the following is the meaning of "free" in the context of free software?
 - (a) The software will cost nothing to obtain.
 - (b) The software can do as it pleases to a users system, accessing and changing all available data.
 - (c) The users have the freedom to run, copy, distribute, study, change and improve the software.
 - (d) The source code is free to those who have purchased the software.
 7. (4 pts) Which of the following is *NOT* an essential freedom according to the Free Software Foundation's definition of Free Software?
 - (a) The freedom to run the program.
 - (b) The freedom to see and study the program.
 - (c) The freedom to share copies.
 - (d) The freedom to own the program.
 - (e) The freedom to share modified versions to others.
 8. (4 pts) Which of these is *NOT* a core principle of open source software, based on the Open-Source Initiative's definitions?
 - (a) The program must include source code.
 - (b) The license must allow people to experiment with and redistribute modifications.
 - (c) The license must not allow a user to sell modified versions of the software.
 - (d) Users have a right to know who is responsible for the software they are using.
 - (e) The license must not restrict anyone from making use of the program in a specific field.
 - (f) The license must not be specific to a product.
-



Grading Rubric

This homework is graded on a 0-32 scale. Each question is worth the number of points indicated.

Submitting the Homework

When is it due? This assignment is due by the end of the day (i.e. 11:59PM, EST) on September 5, 2018. (I give a grace period of six hours after that, so it is okay to submit it by 6:00 AM of the following day.)

In what form should you submit it? You will submit this electronically, not on paper. *Your submission must have both the questions and your answers.* You must submit either

- a plain (unformatted) text file, or
- a PDF obtained by exporting a document from a word processor.

Do not submit a PDF that is just an image of a document, obtained by scanning or taking a photo. It will not be accepted.

Where do you submit it? There is a directory in the CSci Department network whose full path name is `/data/biocs/b/student.accounts/cs132/hwks/hwk1`. You must put it in that directory.

How do you put it in that directory? You submit your homework by running the `submithwk` command that I have written for this purpose. You must do exactly what the instructions below state! Do not deviate from these instructions.

To be precise:

1. If you have created the homework document on your own computer, upload it to our server. You can do this in many ways, such as by copying it from a flash drive into your account when you are in the lab, or by using a file transfer program such as `sftp` or `scp`. No matter which way you do it, make sure that you put the file into your home directory. Specific instructions on uploading files will be covered in class.
2. When you upload the file, make sure you remember its name. Suppose you named it `my_hwk1`.
3. If you are working remotely, login to `eniac.cs.hunter.cuny.edu` using `ssh` with your valid username and password, and then `ssh` into any `cslab` host. Do not forget this step. You will not be able to run the `submithwk` command on `eniac`.
4. If you are not working remotely but are in the lab with a `cslab` host in front of you, open a terminal application after you login.
5. In either case you will be looking at the contents of your home directory (where the file should be). As proof, type the `ls` command and make sure its output includes the homework file `my_hwk1`.
6. Now run the command

```
/data/biocs/b/student.accounts/cs132/bin/submithwk 1 my_hwk1
```

Do exactly this. The command will create a copy of the file `my_hwk1` in the directory

```
/data/biocs/b/student.accounts/cs132/hwks/hwk1
```

It will be named `hwk1_username`, where `username` is your username on the network. You will not be able to read this file, nor will anyone else except for me. If you decide to make any changes and resubmit, just run the command again and it will replace the old file with the new one. I will be able to determine if it is a plain text file or a PDF file. Do not try to put your file into this directory in any other way - you will not be able to do this.