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CS140u

Assignment 1

1) Briefly explain what an Operating System is.

An Operating system, or OS, is a large program that manages most hardware and software that is in your computer. It handles all of the user interface. Microsoft, Apple, and AT&T all have an OS for sale. Linux is a free OS.

2) What does it mean to say, "UNIX is a multi-user Operating System?"

A multi user OS allows multiple user to login in and use the operating system or installed software/hardware on a shared computer or server.

3) What does it mean to say, "UNIX is a multi-tasking Operating System?"

A multitasking OS can have multiple program tasks, processes, running concurrently to complete the tasks faster than starting them sequentially.

4) What does it mean to say, "UNIX is a portable Operating System?"

A portable OS is one capable of running on computers with different architecture and providing the same, or close to the same, user experience. The OS would need to be adaptable to different hardware without having to many code redundancies.

5) Why is UNIX portable?

Unix is portable because more than 95% of the OS is written in the programming language C. C is a higher level language and machine independent.

6) What are the three major components of any UNIX system (UNIX as an Operating System)?

The three major components are the kernel, the shell, and the file system.

7) What are the names of the two prominent versions of UNIX, according to our text book?

System V and BSD are two prominent versions of Unix.

8) Who (names) of people who designed the original UNIX?

Ken Thompson, Dennis Ritchie, Brian Kernighan, Douglas Mcilroy, and Joe Ossanna are the original designers of Unix.

9) What are the two different ways in which a user can interact (interface/work) with UNIX?

Command line and graphical user interface.

10) What is a UNIX account?

A Unix account is a shell account running on a remote server that gives access to a shell using a command line interface protocol like ssh or telnet.

11) What is the username of the most powerful account in a UNIX system (the superuser)?

Root is the username of the most powerful account in a Unix system.

12) What does it mean to "login" to UNIX? What steps do you usually follow for this procedure?

To login to Unix means to get access to a Unix shell. Get on a computer that has internet access and enter your username and password using a telnet connection. You’ll need to know your Unix host computer name and use software like Putty.

13) What is a Shell?

A shell is a user interface for accessing an operating systems services.

14) What is a login Shell?

The login Shell is the top level shell in a process tree that starts with the “init” process. This is where you do the general setup that is done only the first time that you log in.

15) What has to be done to change the terminal emulation if it is not correct?

If the emulation terminal is not correct you need to set it manually. Depending on the shell you are using you’ll need to enter a few lines at your shell prompt. TO find your shell type, at Unix prompt enter echo $SHELL. If using csh or tcsh enter “setenv TERM vt100”, for sh enter “TERM=vt100; export TERM”, and for ksh, bash, or zsh enter “export TERM=vt100”.