**Homework #2**

Using what you’ve learned so far in the course, specifically during week 3, answer the following questions.

Question 1. What command can the current users execute to show a list of commands previously entered? Explain the utility of this command.

History -ls

This command allows the user to see the commands entered and makes it easier to not type the same command numerous times. Efficiency

Question 2. Select all of the following that describe a process:

**a. a running instance of a command.**

b. associated with a user account.

**c. a running program.**

**d. identified by a process id number.**

e. a potential program.

Question 3. What are the results of using which for a command that is located a directory other than your current search path?

-bash-4.2$ which hello

/usr/bin/which: no hello in (/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin)

It cannot find that command in the search path and you are given an error.

Question 4.

1. What command displays current the aliases?

alias

-bash-4.2$ alias

alias egrep='egrep --color=auto'

alias fgrep='fgrep --color=auto'

alias grep='grep --color=auto'

alias l.='ls -d .\* --color=auto'

alias ll='ls -l --color=auto'

alias ls='ls --color=auto'

alias vi='vim'

alias which='alias | /usr/bin/which --tty-only --read-alias --show-dot --show-tilde'

1. Write an alias command to list only the hidden files within the current user’s home directory.

-bash-4.2$ alias hide="ls -l"

-bash-4.2$ hide

total 20

drwxr-xr-x. 2 jmetcalf domain users 4096 Aug 31 13:01 cs2080

-rw-r--r--. 1 jmetcalf domain users 58 Aug 30 18:28 days

-rw-r--r--. 1 jmetcalf domain users 0 Aug 30 18:48 done

-rw-r--r--. 1 jmetcalf domain users 0 Aug 30 17:14 hello

lrwxrwxrwx. 1 jmetcalf domain users 5 Aug 28 18:41 hello.text -> hello

lrwxrwxrwx. 1 jmetcalf domain users 5 Aug 28 18:41 hello.txt -> hello

-rw-r--r--. 1 jmetcalf domain users 0 Sep 11 18:40 help

-rw-r--r--. 1 jmetcalf domain users 71 Sep 6 18:16 jmetcalfdesktop

-rw-r--r--. 1 jmetcalf domain users 0 Aug 23 19:12 me

-rw-r--r--. 1 jmetcalf domain users 15 Sep 11 18:38 PATH

-rw-r--r--. 1 jmetcalf domain users 0 Sep 6 18:17 practice2

drwxr-xr-x. 2 jmetcalf domain users 4096 Aug 28 18:35 test

-rw-r--r--. 1 jmetcalf domain users 0 Sep 11 18:39 yourname

Question 5. Explain the activity of the shell while a command is executing? How can you avoid waiting before running another command?

The shell reads the command, creates a separate “child” process and executes there, and then waits for that process’s completion. You can use the sleep command to avoid waiting.

Question 6. Enter the following command: $ **sleep 30 | cat /etc/services**

Is there any output from sleep? Where does cat get its input from? What has to happen before the shell will display a prompt?

There is no output from sleep, it just puts the terminal into a mode where no more commands can be inputted. The cat input shows the contents of the etc/services folder. The sleep command has to end, so in this case, you would have to wait 30 seconds.

Question 7. Assume the **PATH** variable has been deleted, what are some of the problems that could arise? What is the reasons for these problems? What is the simplest way to restore **PATH** to its original state?

The PATH variable in Linux helps find the directories to search for executable files, this could cause the shell to not be able to find any files that you may want to run. The reason is because if the user gives a command and the PATH is not available the shell will not be able to find the directories with the executable files. The simplest way to restore is to restart the client.

Question 8. What can you do to make the function available every time you log in?

Save the function to the ~/.bash\_rc file.