Homework #7

Using what you’ve learned so far in the course, specifically during week 8, answer the following questions.

Question 1. The \_\_\_ampersand (&)\_\_\_\_\_\_\_\_\_\_\_ symbol allows you to put a program into the background.

Question 2. The following is/are valid signals that can be sent to a process:

**a. SIGHUP**

**b. SIGKILL**

c. SIGNON

**d. 15**

e. SIGOFF

Question 3. A process with a nice value of -5 has a better chance of accessing the CPU, than the same process with a nice value of 5. **True** or False.

Question 4. Explain the use case for functions in a shell script.

Reusability of code. Allows the person writing the script to not type the same lines of code over and over again but rather just pass a value through a specific function.

Question 5. What is the difference between the functionality of the at and cron commands?

at is for scheduling a process at a certain time, cron is used for scheduling a process on a regular basis, for example once a week at 2:00

Question 6. What is significant about the recursive nature of functions?

Is that a function can call itself, or cycles function calls. This can be useful when you need to output the result and the end of each iteration.

Question 7. Review the function below and answer the questions below. Function **mycp** when called copies the file named in the first argument to the file named by the second argument.

1. function mycp () {

2. case $# in

3. 0)

4. exec 3<&0 4<&1

5. ;;

6. 1)

7. exec 3< $1 4<&1

8. ;;

9. 2)

10. exec 3< $1 4> $2

11. ;;

12. \*)

13. echo "Usage: mycp [source [dest]]"

14. return 1

15. ;;

16. esac

17.

18. cat <&3 >&4

19.

20. exec 3<&- 4<&-

21. }

1. What happens if you supply one argument?

Goes into script but once it hits line 4 it needs 2 descriptors, it exits the script.

1. What happens if you supply no arguments?

Won’t enter the script.

c. Explain what is happening in line 18.

The contents of file descriptor 3 are being inputted into file descriptor 4

d. Explain what is happening in line 20.

File descriptors 3 and 4 can no longer be used because they are closed.

Question 8. Write a script named **ifthen** that prompts the user with **>>** and reads a string of text from the user. If the user enters a nonnull string, the script displays **You entered:** followed by the string; otherwise it displays **Where is your input?**. Use an **if...then...else** control structure to implement the two-way branch in the script. Use a test to determine if the user enters a null string. What do you have to do to avoid getting an error message when you prompt with **>>**?

**Deliverables:**

1. **Submit your results for both null and nonnull test cases in your homework doc.**

-bash-4.2$ ./ifthen

>>

Where is your string?

-bash-4.2$ ./ifthen

>>How are you

You entered: How are you

-bash-4.2$

1. **Submit your answer to the question regarding >> in your homework doc also.**

Utilize single or double quotes after the read command.

**3. Submit your script using the copy command to */home/jalcorn/Submissions/Fall2018/hw7/sec005/* using the format *username\_hw7***