Homework Week #6

(20 total points)

Using what you’ve learned so far in the course, specifically during week 6, answer the following questions.

Question 1. (1 point) Explain the function of **break** and **continue** commands in UNIX/Linux.

**Break** command is a simple way to escape a loop in progress. **Continue** command is a way to prematurely stop a process inside of a loop. This does not terminate the loop.

Question 2. (1.5 points) Name two commands that are used in bash script to perform arithmetic calculations. Describe the difference between them.

The two commands are **expr** and **bc**. The **expr** command allows for integer math while **bc** allows for decimals to be part of the math.

Question 3. (5 points) Explain what is happening in Lines 1, 4, 9, and 18. What is the final output of this operation?

Line 01: $ x=5

Line 02: $ y=3

Line 03: $

Line 04: $ if [ $x -lt $y ]

Line 05: > then

Line 06: > echo " "

Line 07: > echo " ${x} is less than ${y}"

Line 08: > echo " "

Line 09: > elif [ $x -eq $y ]

Line 10: > then

Line 11: > echo " "

Line 12: > echo " ${x} is equal to ${y}"

Line 13: > echo " "

Line 14: > else

Line 15: > echo " "

Line 16: > echo " ${x} is greater than ${y}"

Line 17: > echo " "

Line 18: > fi

**Line 1:** the variable x is initialized to 5.

**Line 4:** if the variable x is less than the variable y

**Line 9:** else if the variable x is equal to the variable y

**Line 18:** this ends the if statement

Question 4. (1.5 points) Which of the following programming constructs can be used in a bash shell script: a. **if…do statement**

1. **case command**
2. **for...do loop**
3. **while…do loop**
4. **until…done loop**

Question 5. (2 points) Explain the difference between && and ||.

**&&** tests for something that is true. **||** tests for something that is false.

Question 6. (3 point) Explain (line by line) what is happening in the following script snippet:

1. for NAME in John Paul Ringo George ; do
2. echo $NAME is my favorite Beatle
3. done

**Line 1:** this line will loop setting the variable NAME to John, Paul, Ringo, and George

**Line 2:** this line will print out each name with the “is my favorite Beatle”

**Line 3:** this line will exit the for do statement.

Question 7. (1 point) What command ends every **do** loop in a while…do statement? What command ends an until…do statement?

**done** is the command that ends both while do and until do.

Question 8. (5 points) Write a script that checks the user’s home directory for a file named **hwfile**. Assuming it’s present, append the file with, “Today’s date is **mm/dd/yy**”. If you can’t locate the file **hwfile**, then create it and store, “This is **username** on **computer\_name** making my first entry.”

Change the permissions of your script so only the owner has read, write and execute privileges. Then copy your completed script to the instructor’s Submissions folder (file path:

/home/jalcorn/Submissions/Spring2020/hw\_week6/) using the naming convention “lastname\_hw\_w6”.