Assignment-2
(Bash –Scripting)

Notes

- Assignment must be completed as an individual effort.
- All online submissions will be done via SLATE (Email submissions will NOT be accepted).
- Please refer to the Academic Dishonesty Policy
- Due date: Check slate for due date
- Please write and test all the shell scripts using the editor of your choice
- Total Marks=20
- If the files do not have this naming convention, you will lose marks:
    - firstname_menu.sh
    - firstname_string.sh
    - firstname_numbers.sh

ScriptingPart1: (5Marks)

Write a bash shell script <firstname_menu.sh> that will accomplish the following:

a) Display the following menu:

1. Display a long listing of the current directory
2. Display the current working directory
3. Display the current date and time
4. Quit

- For option 1 display the long listing for the current directory
- For option 2 display who is logged on the system currently
- For option 3 display the current date and time
- For option 4 selection use exit

Hint:[Use case statement for the menu]

Code:

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```
 GNU nano 2.5.3                                    File: firstname_menu.sh

#!/bin/bash
echo "Enter your choice"
echo "1.Display a long listing of current directory"
echo "2.Display the current working directory"
echo "3.Display the current date and time"
echo "4.Quit"
read choice
case $choice in
1)
echo `ls -l`
;;
2)
echo `pwd`
;;
3)
echo `date`
;;
4)
echo `exit`
;;
esac
```

Output:

Choice 1

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```
patelane@atlas:~$ pico firstname_menu.sh
patelane@atlas:~$ bash firstname_menu.sh
Enter your choice
1.Display a long listing of current directory
2.Display the current working directory
3.Display the current date and time
4.Quit
1
total 180
drwxr-x--- 5 patelane students 4096 Feb  3 11:52 ad
-rwxrwxrwx 1 patelane students    4 Jan 27 11:56 an
drwxr-x--- 3 patelane students 4096 Jan 13 13:29 college
-rw-r----- 1 patelane students   51 Feb  3 12:15 count
drwxr-x--- 2 patelane students 4096 Jan 27 12:56 d1
drwxr-x--- 2 patelane students 4096 Jan 27 12:57 d2
drwxrwxr-x 2 patelane students 4096 Jan 27 12:58 d3
drwxrwxr-x 2 patelane students 4096 Jan 27 13:24 dir1
-rw-r----- 1 patelane students   58 Jan 24 19:18 errorfile
-rw-r----- 1 patelane students  346 Feb  3 13:07 exer5
-rw-r----- 1 patelane students    0 Jan 23 21:17 Ex-wk3
-rw-rw-r-- 1 patelane students    0 Jan 27 13:21 f
-rw-r----- 1 patelane students   12 Feb  3 13:10 f1
-rw-rw-r-- 1 patelane students    0 Jan 27 13:21 f11
-rw-r----- 1 patelane students   12 Feb  3 13:10 f2
-rw-r----- 1 patelane students   12 Feb  3 13:10 f3
-rw-r----- 1 patelane students   59 Feb  3 13:37 f4
-rw-rw---- 1 patelane students    0 Jan 27 13:23 ff
-rw-r----- 1 patelane students   26 Feb  3 12:11 fil
-rw-r----- 1 patelane students    8 Feb  3 13:12 file4
-rw-r----- 1 patelane students   11 Feb  9 13:50 filea
-rw-r----- 1 patelane students    8 Feb  9 13:54 fileb
-rw-r----- 1 patelane students   12 Feb  9 13:55 filec
-rw-r----- 1 patelane students   11 Feb  9 13:52 filed
-rw-r----- 1 patelane students    0 Feb  3 13:12 filee4
-rw-r----- 1 patelane students  190 Feb  3 12:10 fill
-rw-r----- 1 patelane students  217 Mar 31 19:25 firstname2_menu.sh
-rw-r----- 1 patelane students  301 Mar 31 19:55 firstname_menu.sh
-rw-r----- 1 patelane students   70 Mar 31 19:48 firstname_number.sh
-rwxr----- 1 patelane students  132 Mar 26 23:34 firstname.sh
-rw------- 1 patelane students    8 Mar 26 23:30 firstname.sh.save
-rw-r----- 1 patelane students  178 Mar 31 19:45 firstname_string.sh
drwxr-x--- 3 patelane students 4096 Jan 13 13:03 folder1
dr-xr-xr-- 2 patelane students 4096 Feb  9 17:39 h
-rw-r----- 1 patelane students   51 Jan 20 11:57 hard1
```

Choice 2

```
patelane@atlas:~$ bash firstname_menu.sh
Enter your choice
1.Display a long listing of current directory
2.Display the current working directory
3.Display the current date and time
4.Quit
2
/home/oa-homer3/116/patelane
```

Choice 3

```
patelane@atlas:~$ bash firstname_menu.sh
Enter your choice
1.Display a long listing of current directory
2.Display the current working directory
3.Display the current date and time
4.Quit
3
Tue Mar 31 19:57:45 EDT 2020
```

Choice 4

```
patelane@atlas:~$ bash firstname_menu.sh
Enter your choice
1.Display a long listing of current directory
2.Display the current working directory
3.Display the current date and time
4.Quit
4

patelane@atlas:~$
```

Scripting Part2: (5Marks)

Modify the above script and your shell script should continue to execute until the user selects option 4. Save it as <firstname2_menu.sh>
[Hint: use loop]

Code:

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```
  GNU nano 2.5.3                                  File: firstname2_menu.sh

#/bin/bash

while true;
do
        echo "Enter your choice"
        echo "1.Display a long listing of current directory"
        echo "2.Display the current working directory"
        echo "3.Display the current date and time"
        echo "4.Quit"
        read choice
        case $choice in
        1)
        echo `ls -l`
        ;;
        2)
        echo `pwd`
        ;;
        3)
        echo `date`
        ;;
        4)
        break
        ;;
        esac
done
```

Output:

```
patelane@atlas:~$ bash firstname2_menu.sh
Enter your choice
1.Display a long listing of current directory
2.Display the current working directory
3.Display the current date and time
4.Quit
2
/home/oa-homer3/116/patelane
Enter your choice
1.Display a long listing of current directory
2.Display the current working directory
3.Display the current date and time
4.Quit
3
Tue Mar 31 21:18:30 EDT 2020
Enter your choice
1.Display a long listing of current directory
2.Display the current working directory
3.Display the current date and time
4.Quit
4
patelane@atlas:~$
```

Scripting Part3 :(5Marks)

Write a script<firstname_string.sh> that would accept two strings from the user and would display a message stating whether the accepted strings are equal or not.

Code:

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```
  GNU nano 2.5.3                                  File: firstname_string.sh

#/bin/bash
echo "Enter string 1"
read string1
echo "Enter string 2"
read string2
if [ $string1 = $string2 ]
then
        echo "Strings are equal"
else
        echo "Strings are not equal"
fi
```

Output:

```
patelane@atlas:~$ bash firstname_string.sh
Enter string 1
Anee
Enter string 2
Anee
Strings are equal
patelane@atlas:~$ bash firstname_string.sh
Enter string 1
aneepatel
Enter string 2
anee
Strings are not equal
patelane@atlas:~$
```

Scripting Part4 and Part 5: (2+3=5Marks)

Write the script <firstname_number.sh>that takes two command line arguments and then display all the numbers between two integers (including the numbers)

Print the numbers ascending order if the first number is smaller than the second and in descending order if the first number is greater than the second.

(Total: 2+3Marks)

Code:

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```
 GNU nano 2.5.3                                  File: firstname_number.sh

#!/bin/bash
num1=$1
num2=$2
if [ $num1 -lt $num2 ]
then
        for ((i=$num1;i<=$num2;i++))
        do
        echo $i
        done
elif [ $num1 -gt $num2 ]
then
        for ((i=$num1;i>=$num2;i--))
        do
        echo $i
        done
fi
```

Output:

```
patelane@atlas:~$ bash firstname_number.sh 23 31
23
24
25
26
27
28
29
30
31
patelane@atlas:~$ bash firstname_number.sh 31 23
31
30
29
28
27
26
25
24
23
patelane@atlas:~$
```