

OPS102: Introduction to Shell Scripting Lab

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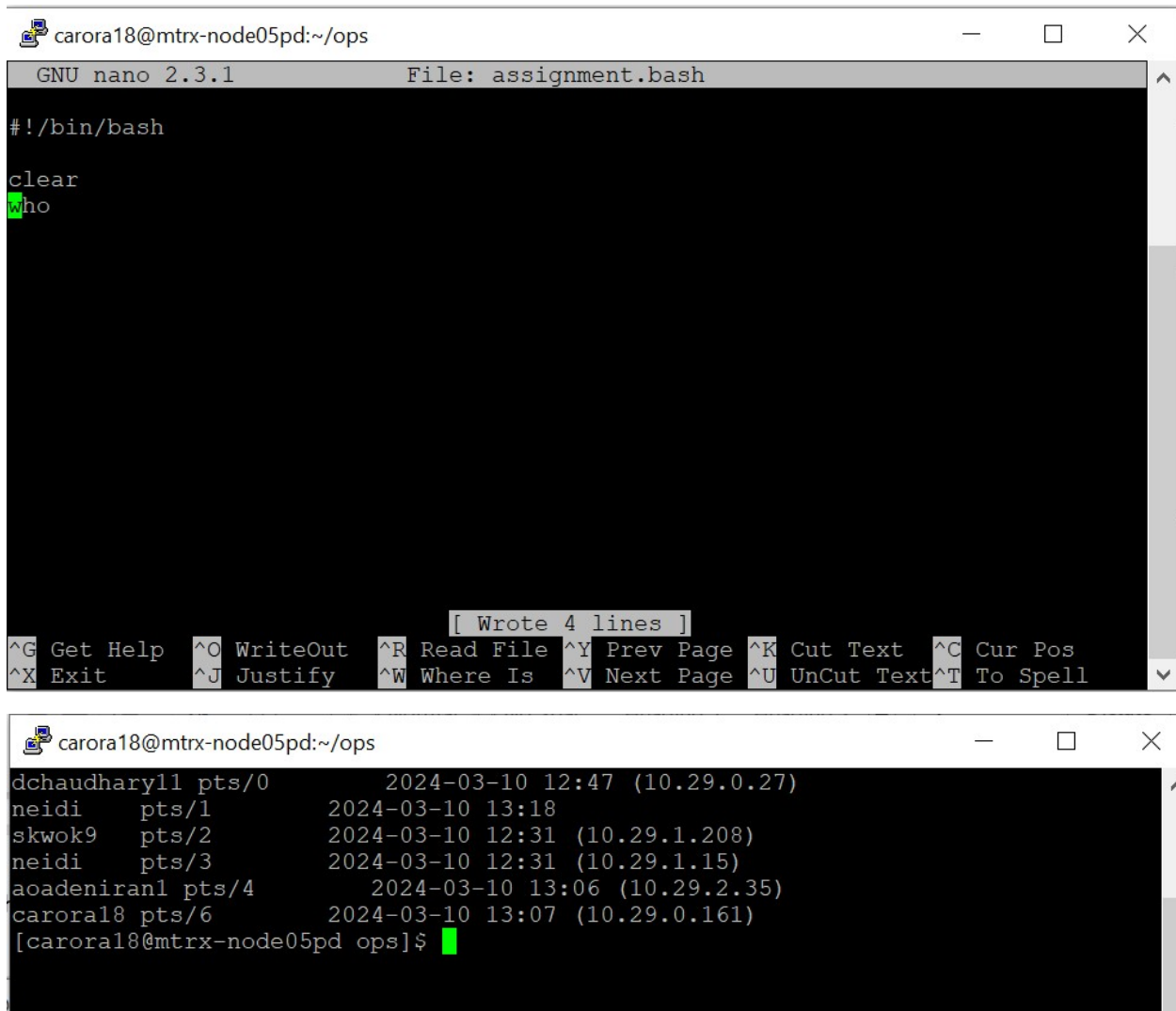
Student ID- 100976240

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Include screenshots of your outputs and upload

Task 1

Create a Bash Shell script to clear the screen and then display all users that are currently logged onto the system.



The first screenshot shows a terminal window with the title bar 'carora18@mtrx-node05pd:~/ops'. The terminal is running GNU nano 2.3.1, editing a file named 'assignment.bash'. The script content is as follows:

```
#!/bin/bash
clear
who
```

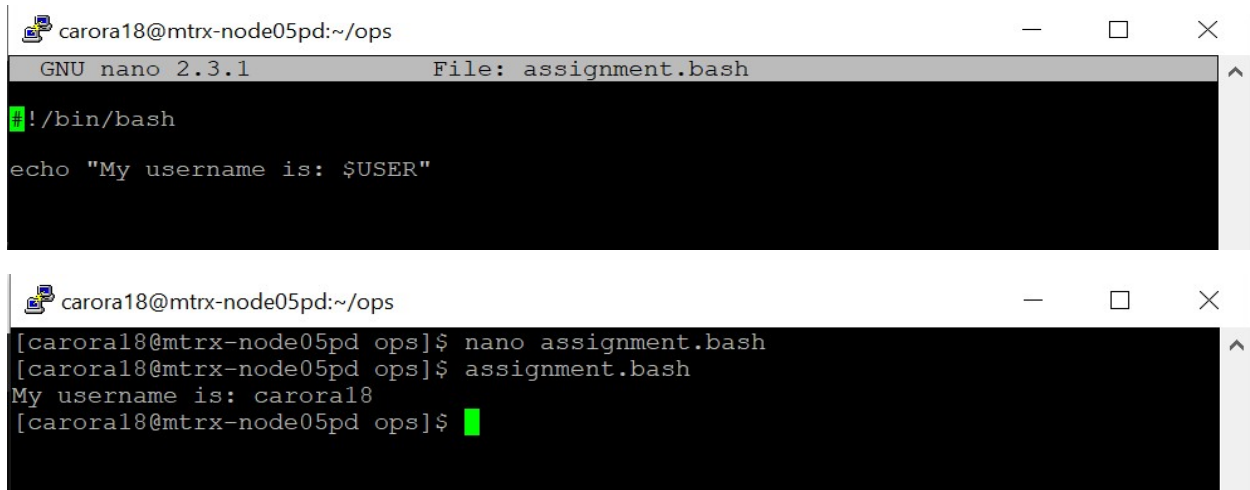
The second screenshot shows the same terminal window after running the script. The output of the 'who' command is displayed, showing the current users logged into the system:

```
dchaudhary11 pts/0      2024-03-10 12:47 (10.29.0.27)
neidi      pts/1      2024-03-10 13:18
skwok9     pts/2      2024-03-10 12:31 (10.29.1.208)
neidi      pts/3      2024-03-10 12:31 (10.29.1.15)
aoadeniran1 pts/4      2024-03-10 13:06 (10.29.2.35)
carora18   pts/6      2024-03-10 13:07 (10.29.0.161)
[carora18@mtrx-node05pd ops]$
```

Task 2:

Write a Bash shell script to display the following message using an **environment variable** so it will work in any user's terminal if the shell script was issued:

My username is: (your-username)



```
carora18@mtrx-node05pd:~/ops
GNU nano 2.3.1      File: assignment.bash
#!/bin/bash
echo "My username is: $USER"

[carora18@mtrx-node05pd ops]$ nano assignment.bash
[carora18@mtrx-node05pd ops]$ assignment.bash
My username is: carora18
[carora18@mtrx-node05pd ops]$
```

Task 3:

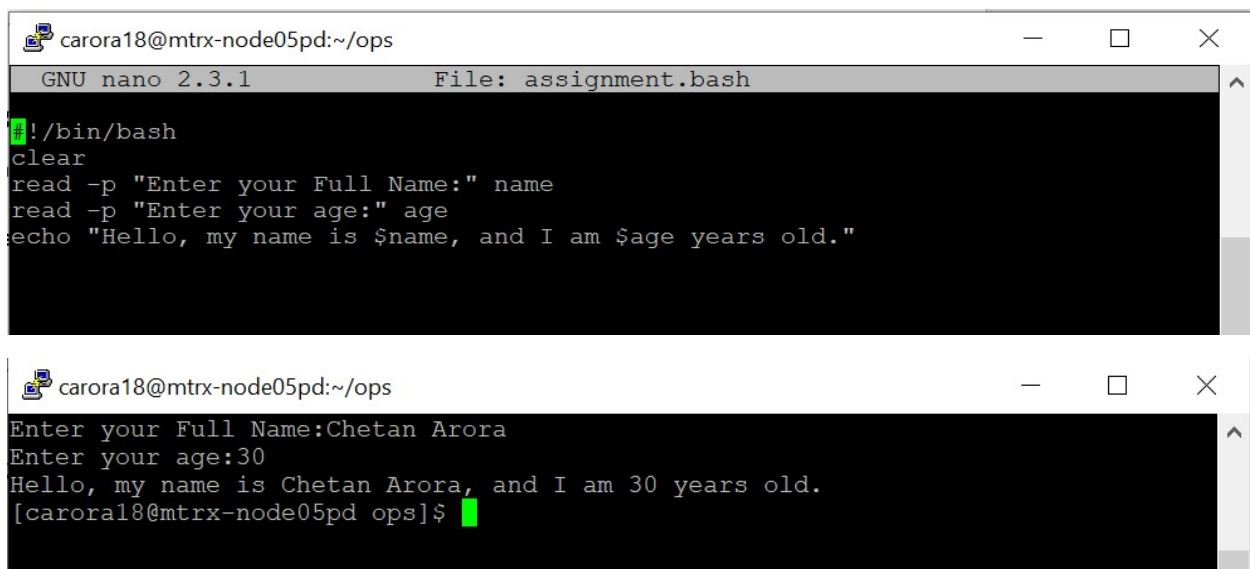
Write a Bash shell script to prompt the user for their **full name** and prompt the user for their **age** to be stored in **user-defined** variables.

Display the following output using the values of those variables:

Enter your Full Name: (your full name)

Enter your Age: (your age)

Hello, my name is (your full name), and I am (your age) years old.



```
carora18@mtrx-node05pd:~/ops
GNU nano 2.3.1      File: assignment.bash
#!/bin/bash
clear
read -p "Enter your Full Name:" name
read -p "Enter your age:" age
echo "Hello, my name is $name, and I am $age years old."

Enter your Full Name:Chetan Arora
Enter your age:30
Hello, my name is Chetan Arora, and I am 30 years old.
[carora18@mtrx-node05pd ops]$
```

Task 4

Write a shell script that reads following information from user and writes into a file.

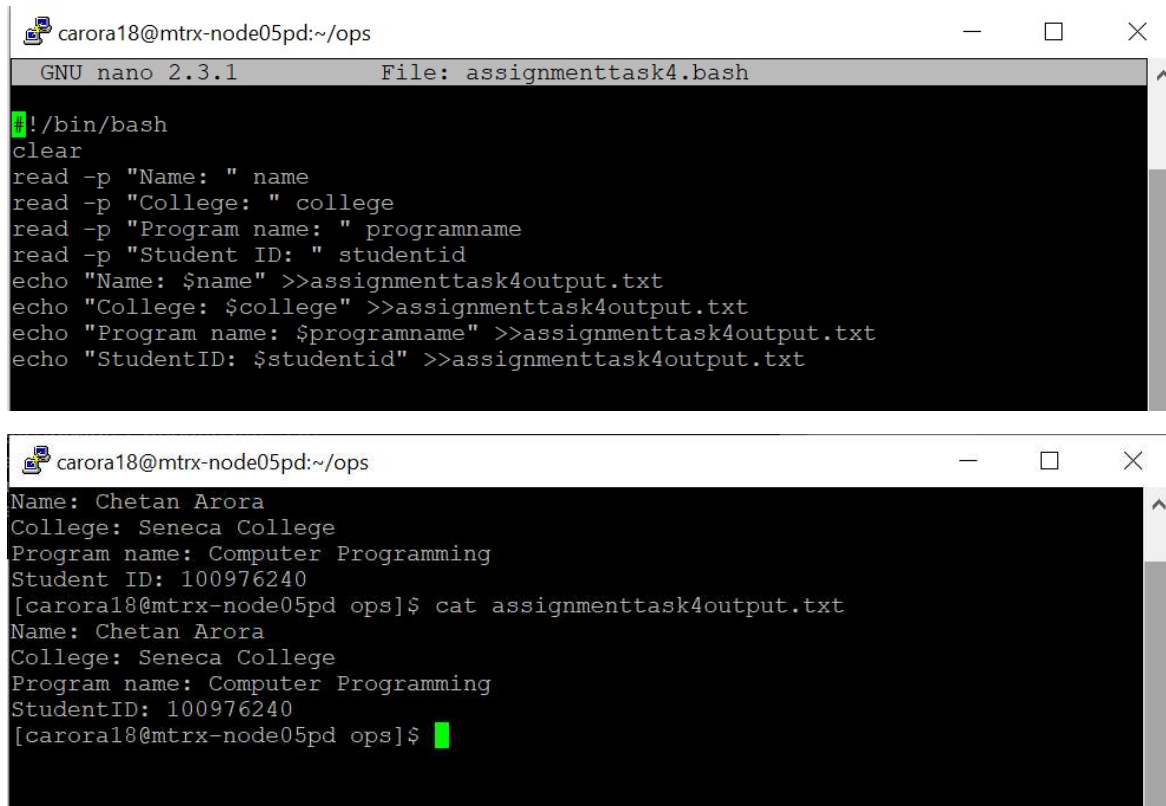
Name:

College:

Program name

Student ID

The script should read name of the script from the user.



The first screenshot shows a terminal window with the nano editor open to create a file named 'assignmenttask4.bash'. The script content is as follows:

```
#!/bin/bash
clear
read -p "Name: " name
read -p "College: " college
read -p "Program name: " programname
read -p "Student ID: " studentid
echo "Name: $name" >>assignmenttask4output.txt
echo "College: $college" >>assignmenttask4output.txt
echo "Program name: $programname" >>assignmenttask4output.txt
echo "StudentID: $studentid" >>assignmenttask4output.txt
```

The second screenshot shows the terminal after running the script. It prompts for user input and then displays the contents of 'assignmenttask4output.txt'.

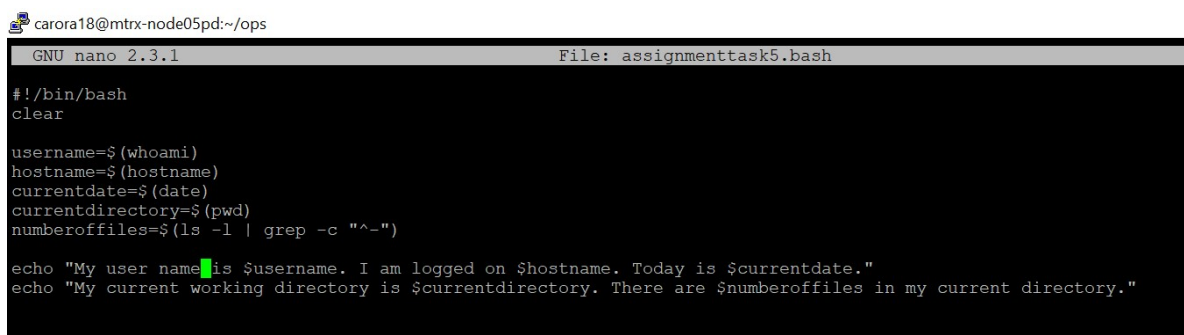
```
Name: Chetan Arora
College: Seneca College
Program name: Computer Programming
Student ID: 100976240
[carora18@mtrx-node05pd ops]$ cat assignmenttask4output.txt
Name: Chetan Arora
College: Seneca College
Program name: Computer Programming
StudentID: 100976240
[carora18@mtrx-node05pd ops]$
```

Task 5

Write a script that write the following into the file read in Task 3:

My is <user name>. I am logged on <hostname>. Today is <date>.

My current working directory is <directory>. There are <number of files> in my current directory



The screenshot shows a terminal window with the nano editor open to create a file named 'assignmenttask5.bash'. The script content is as follows:

```
#!/bin/bash
clear

username=$(whoami)
hostname=$(hostname)
currentdate=$(date)
currentdirectory=$(pwd)
numberoffiles=$(ls -l | grep -c "^-")

echo "My user name is $username. I am logged on $hostname. Today is $currentdate."
echo "My current working directory is $currentdirectory. There are $numberoffiles in my current directory."
```

carora18@mtrx-node05pd:~/ops

My user name is carora18. I am logged on mtrx-node05pd.dcm.senecacollege.ca. Today is Sun Mar 10 14:42:14 EDT 2024.
My current working directory is /home/carora18/ops. There are 4 in my current directory.
[carora18@mtrx-node05pd ops]\$

Task 6:

Make a file and enter following script:

```
#!/bin/bash
```

```
a=10
```

```
b=2
```

```
echo "$a + $b: $((a+b))"
```

```
echo "$a - $b: $((a-b))"
```

```
echo "$a * $b: $((a*b))"
```

```
echo "$a / $b: $((a/b))"
```

Modify the script to read variables a and b from user. Make interactive program to read variables.

```
carora18@mtrx-node05pd:~/ops
GNU nano 2.3.1      File: assignmenttask6.bash      Modified
#!/bin/bash
clear
read -p "Enter the value of a:" a
read -p "Enter the value of b:" b

echo "$a + $b: $((a+b))"
echo "$a - $b: $((a-b))"
echo "$a * $b: $((a*b))"
echo "$a / $b: $((a/b))"
```

```
carora18@mtrx-node05pd:~/ops
Enter the value of a:10
Enter the value of b:2
10 + 2: 12
10 - 2: 8
10 * 2: 20
10 / 2: 5
[carora18@mtrx-node05pd ops]$
```