LAB – 07 PRELAB

- ☐ **All screenshots, must have your username at command prompt and screenshot should be legible.** Snipping tool is advised for the screen shots, no full page screenshot.
- ☐ **For LAB REPORT, The screenshots should be pasted in Word Document in order of the lab questions and submitted in Blackboard as a single document only. Plagiarism is awarded zero.**
- ☐ Refer to course details posted in BB for more info on Lab report and screenshots.
- ☐ **Do NOT login as root or user with UID=0 to do the lab, use sudo ONLY when required.**
- ☐ **Do not use changeme username** to do the lab, the lab(s) MUST be done using your own username as specified in PART-B of LAB-1
- ☐ **Strictly NO screenshots with full screen of terminal or desktop or partly taken screenshots**
- ☐ **It is highly required to following naming conventions and instructions and it would affect evaluation.**

PRELAB MUST BE COMPLETED BEFORE DUE DATE AS GIVEN IN BLACKBOARD

In TORONTO VM

All script screenshots should cat the script and also the output. Scripts should be UNIQUE. Slides and other resources can be used as reference but scripts need to be on your own development.

1. **ENVIRONMENTAL VARIABLES**
   a. Write a bash script demonstrating environmental variables, similar to the screenshot given.

```
=====Environment Variable example=======
$HOME =  /home/user1
$SHELL =  /bin/bash
```

   *(***SCREENSHOT: a)** *cat the script and its output* **b) history |grep env**
2. Demonstrate a local variable and export it and display the purpose of exporting a variable. **(SCREENSHOT)**
3. Create a script to get input and then displays as shown in the screenshot when executed.**(SCREENSHOT:cat script & output)**

Entries should be based on yourself.

```
Enter your First Name : John
Enter your Last Name  : Smith
Enter your Program    : CCGC
Enter you Semester    : 1
Year of Graduation    : 2021
John Smith, you are in Semester 1 from
 CCGC program and graduating in 2021
```

Q3

4. Save above script to a different file name and modify the script to save the input data to a file named data.txt. Each set of entry should be saved with delimiter **: (colon)** between the inputs and the script should display the file data.txt. **(SCREENSHOT: a) cat data.txt b)cat script and its output.** *(an example- for the first set of input (q3 screenshot) which will be the file line of data.txt file and it should be* **John:Smith:CCGC:1:2021** *and second set of inputs as second line and so on ...)*
5. Write a script to get two inputs : username and password and display it as "**Your username is** *inputgiven* **and password is** *passwordgiven.* While entering the password the password characters must be hidden.**(SCREENSHOT)**
6. Write a script and run it in bash shell to learn to **get command as input** and **assign input to a variable** and **display the input and the output of the command**

```
Enter a command :pwd
The output of pwd is
/home/user1
```

Q-6

7. Write a script using expr command to get string *(atleast 8 characters)* input and display
   a. the **length** of the string given
   b. **substring**, from 2nd character display 5 characters.
   c. **index** of the given character.
8. Using **positional parameters** write an **if** construct script, which gets two numbers as arguments and compare the number and display the output if the numbers are greater / less / equal. If arguments are not enered with the script, script should give a message "**Arguments required for the script**" and close the script.

```
Enter first number : 45
Enter second number : 29
Enter arthimetic operator :+
The sum of 45 and 29 is 74
```

prof benann nathan

LAB – 07 PRELAB

9. Write bash script to get input of atleast 2 numbers, then get input of an arithmetic operator, and then display the result of the two numbers with arithmetic operator (+, -, *, /, %). If any other character entered in case of arithmetic operator, a message should display that arithmetic operator not entered **(SCREENSHOT)** *(sample is given below for various arithmetic operator inputs)*

```
Enter first number : 33
Enter second number : 89
Enter arthimetic operator :-
The difference of 33 and 89 is -56
```

```
Enter first number : 75
Enter second number : 4
Enter arthimetic operator :*
The multiplication of 75 and 4 is 300
```

```
Enter first number : 234
Enter second number : 3
Enter arthimetic operator :/
The result from division of 234 / 3 is 78
```

```
Enter first number : 674
Enter second number : 24
Enter arthimetic operator :%
The mod of 674 and 24 is 2
```

```
Enter first number : 34
Enter second number : 32
Enter arthimetic operator :#
You have not entered an arithmetic operator +, -, *, /, %; Try Again
```

==========