BASIS OF BASH SCRIPT PART 1
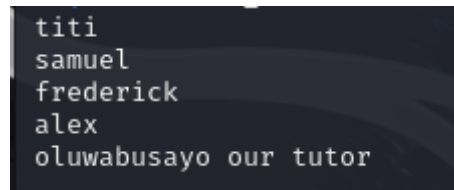
In this article, we will show you the basis on how to use the bash script on linux.This script will create files, variables, calculate math functions and also the use of 'IF' statement

SCRIPT OVERVIEW

1.0>Create a text file name named *class_list.txt* with the following format

1.1 RUNNING THR SCRIPT

>**Create a script named *create_users.sh***

>*Make the script executable s*

   sudo chmod +x create_users.sh

>**Execute the script**

  sudo ./create_users.sh class_list.txt

1.2 *How to use variables*

Use of Variables:

-To save information for later use

-To capture the output of a command such as [ls pwd and cat]

-To search for a file

-To install and update missing applications

To save information for later

nano ./create_users.sh

```
#!/bin/bash

name="Ibukun Mamora"
tutor="Oluwabusayo"
now=$(date)


echo  Hello , i am $name
echo  $tutor  is my instructor name
echo $now
echo $files
```

Ctrl x to save and then you execute the command using **./create.user.sh**

Result after the use of variables

```
└$ ./create_users.sh
 Hello , i am Ibukun Mamora
 Oluwabusayo is my instructor name
 Tue Jul 23 02:47:48 AM EDT 2024
```

1.3 *Variables can also be used to capture the output of a command*

files=$(command output)

```
└$ cat class_list.txt
 titi
 samuel
 frederick
 alex
 oluwabusayo our tutor

┌──(kali㉿kali)-[~]
└$ files=$(cat class_list.txt)

┌──(kali㉿kali)-[~]
└$ echo $files
 titi samuel frederick alex oluwabusayo our tutor
```

1.4 'IF' *statements on bashcript*

Create a script using command **'nano ./myscript.sh'**

```
┌──(kali㉿kali)-[~]
└$ mygmcclass=11

┌──(kali㉿kali)-[~]
└$ echo $mygmcclass
 11

┌──(kali㉿kali)-[~]
└$ nano ./myscript.sh
```

if mygmcclass is equal to 11 ,echo true positive

```bash
#!/bin/bash

mygmcclass=11

if [ $mygmcclass -eq 11 ]
then
    echo "True Positive."
fi
```

***RESULT AFTER EXECUTION

```
┌──(kali㊙kali)-[~]
└─$ ./myscript.sh
True Positive.
```

If two members are added to {mygmcclass}, we can use the ***'else'*** *command*

```bash
mygmcclass=13

if [ $mygmcclass -eq 11 ]
then
    echo "True Positive."
else
    echo "False negative"
fi
```

***RESULT AFTER EXECUTION

```
┌──(kali㊙kali)-[~]
└─$ ./myscript.sh
False negative
```

1.5 *Bashscript can also be used to search for a file*

```bash
#!/bin/bash

if [ -f ~/ibukun.txt ]
then
    echo "True Positive."
else
    echo "False negative"
fi
```

RESULT AFTER EXECUTION

```
┌──(kali㉿kali)-[~]
└─$ ./myscript.sh
False negative

┌──(kali㉿kali)-[~]
└─$ touch ibukun.txt

┌──(kali㉿kali)-[~]
└─$ ./myscript.sh
True Positive.
```

NO such file as **'ibukun.txt'**

I created a file using the touch command *'touch ibukun.txt'* and i executed the command again, since we now have the file 'ibukun.txt'.. we should have a **'true positive'** feedback

1.6 *To install htop using bashcript*

```
┌──(kali㉿kali)-[~]
└─$ which htop
```

The *'which'* command shows if the application is available. To install htop

--command line-- **nano ./myscript.sh**

```
#!/bin/bash

command=/usr/bin/htop

if [ -f $command ]
then
    echo "$command is available, let's run it ... "
else
    echo "$command is NOT available, installing it .. "
  sudo apt update && sudo apt install -y htop
fi

$command
```

RESULT AFTER EXECUTION

```
  0[|                              0.6%]  Tasks: 78, 181 thr, 131 kthr; 1 runni
  1[||                             1.3%]  Load average: 0.17 0.16 0.06
  2[|                              0.6%]  Uptime: 02:23:11
  3[| ||                           7.0%]
Mem[||||||||||||||||||||||659M/1.92G]
Swp[                          0K/1024M]

  Main   I/0
    PID USER       PRI  NI   VIRT    RES    SHR S  CPU%▽MEM%    TIME+   Command
  67065 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67066 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67067 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67079 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67080 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67081 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67082 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67083 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67084 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67085 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67086 kali        20   0 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67087 kali        39  19 1314M   105M 77304 S    0.0  5.4   0:00.00 xfwm4 --dis
  67138 kali        20   0  8308   4736  3200 S    0.0  0.2   0:00.04 /bin/bash
  68171 kali        20   0  6976   3328  3072 S    0.0  0.2   0:00.00 /bin/bash .
F1Help  F2Setup F3SearchF4FilterF5Tree  F6SortByF7Nice -F8Nice +F9Kill   F10Qui
```

htop succesfully installed