

OS Lab Assignment 2 -Shell Script Part 1

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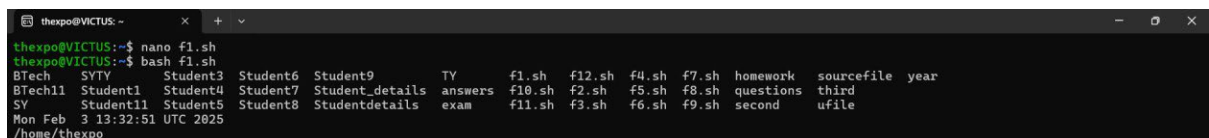
DIV- SY_CS_B

Write shell script to execute command ls, date, pwd repetitively



```
GNU nano 7.2 f1.sh
ls
date
pwd
```

The screenshot shows a nano text editor window titled 'f1.sh'. The editor contains three lines of text: 'ls', 'date', and 'pwd'. The bottom status bar displays various keyboard shortcuts for editing and navigation.



```
thexpo@VICTUS: ~$ nano f1.sh
thexpo@VICTUS: ~$ bash f1.sh
BTech  SYTY  Student3  Student6  Student9  TY  f1.sh  f12.sh  f4.sh  f7.sh  homework  sourcefile  year
BTech11 Student1  Student4  Student7  Student_details answers f10.sh f2.sh f5.sh f8.sh questions third
SY      Student11 Student5  Student8  Studentdetails exam  f11.sh f3.sh f6.sh f9.sh second  ufile
Mon Feb  3 13:32:51 UTC 2025
/home/thexpo
```

The screenshot shows a terminal window where the shell script 'f1.sh' has been executed. The output displays a table of student information, including names, IDs, courses, and various file names. The terminal prompt is 'thexpo@VICTUS: ~\$'.

Write a shell script to assign value to the variable? Display value with \$ and without \$.



```
thexpo@VICTUS: ~  
GNU nano 7.2 f2.sh  
var1=10  
echo "Entered number= $var1"  
echo "Entered number= $1"
```



```
thexpo@VICTUS: ~  
thexpo@VICTUS:~$ nano f2.sh  
thexpo@VICTUS:~$ bash f2.sh 20  
Entered number= 10  
Entered number= 20
```

Variables are untyped in Shell Script. Write a shell script to show variables are untyped.



```
thexpo@VICTUS: ~  
GNU nano 7.2 f3.sh  
var1=10  
var2=10.12  
var3=vit  
var4="Welcome to second year"  
  
echo "$var1"  
echo "$var2"  
echo "$var3"  
echo "$var4"
```



```
thexpo@VICTUS: ~  
thexpo@VICTUS:~$ nano f3.sh  
thexpo@VICTUS:~$ bash f3.sh  
10  
10.12  
vit  
Welcome to second year
```

Write a shell script to accept numbers from user. (Keyboard)



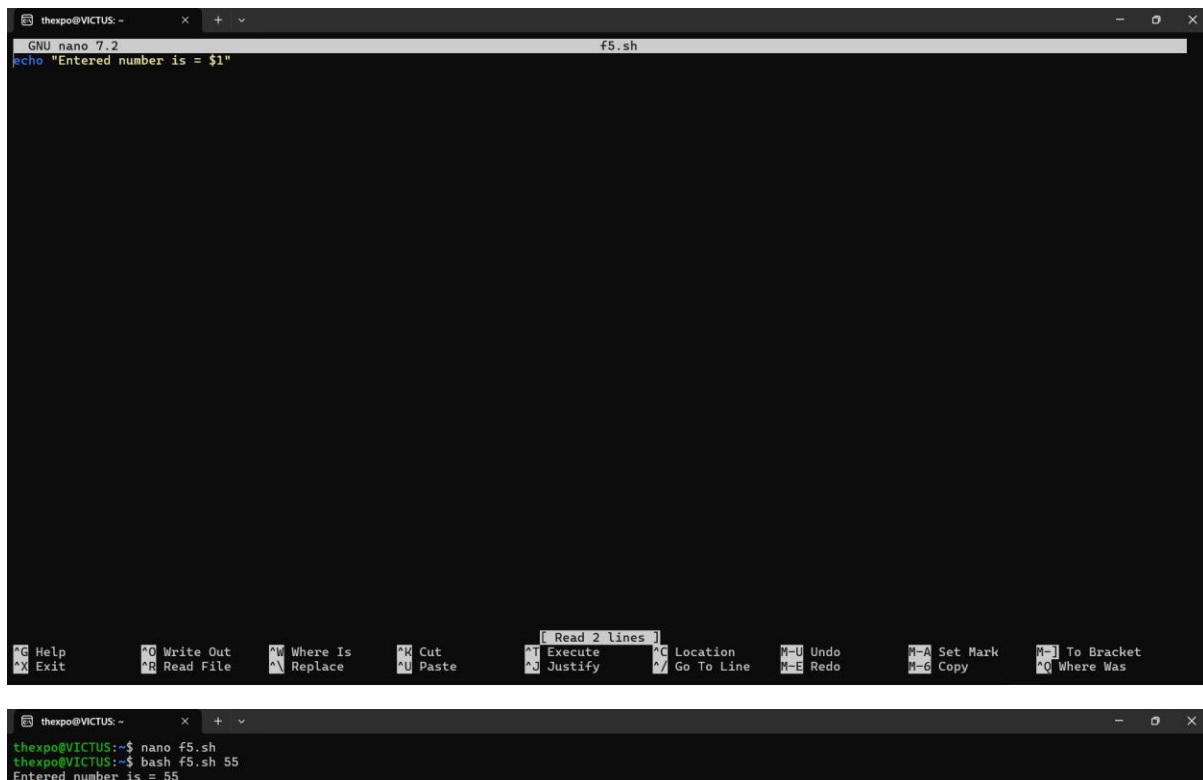
The first screenshot shows a terminal window with the nano text editor open to a file named f4.sh. The script content is as follows:

```
GNU nano 7.2 f4.sh
#echo "Enter a number: "
read num1
echo "Entered number is = $num1"
```

The second screenshot shows the terminal after running the script. The user enters the number 45, and the script outputs "Entered number is = 45".

```
thexpo@VICTUS: ~
thexpo@VICTUS:~$ nano f4.sh
thexpo@VICTUS:~$ bash f4.sh
Enter a number:
45
Entered number is = 45
```

Write a shell script to accept numbers from command line arguments.



The first screenshot shows a terminal window with the nano text editor open to a file named f5.sh. The script content is as follows:

```
GNU nano 7.2 f5.sh
#echo "Entered number is = $1"
```

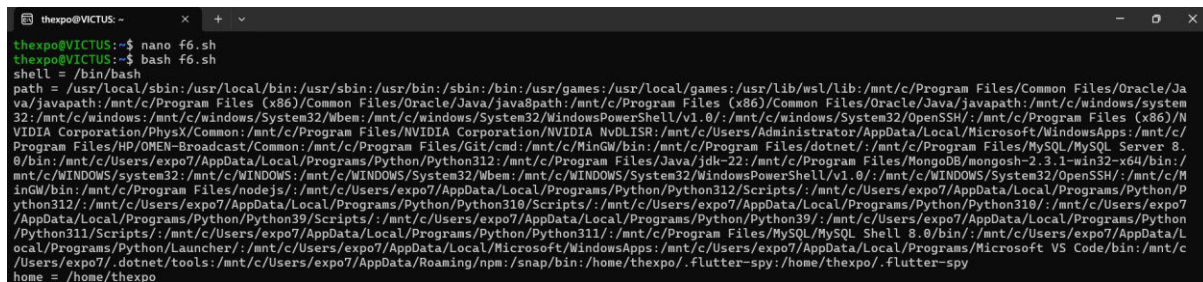
The second screenshot shows the terminal after running the script with the argument 55. The script outputs "Entered number is = 55".

```
thexpo@VICTUS: ~
thexpo@VICTUS:~$ nano f5.sh
thexpo@VICTUS:~$ bash f5.sh 55
Entered number is = 55
```

Write a shell script to show the contents of environmental variables SHELL,PATH,HOME.

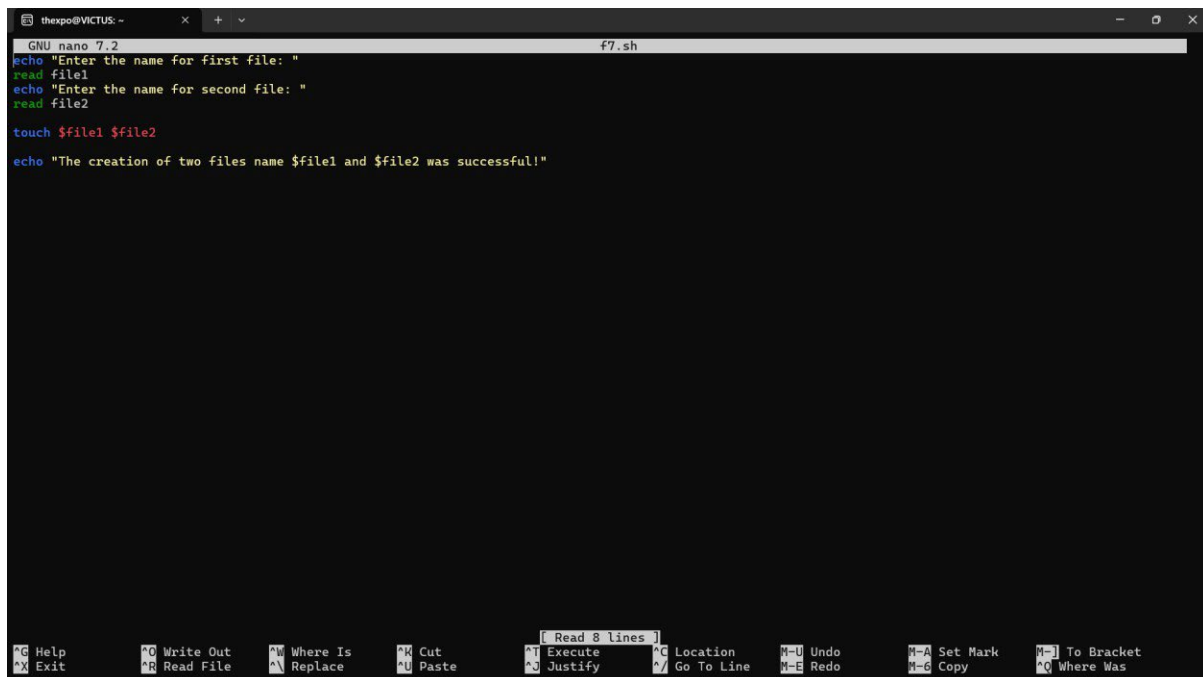


```
thexpo@VICTUS: ~  
GNU nano 7.2 f6.sh  
#echo "shell = $SHELL"  
#echo "path = $PATH"  
#echo "home = $HOME"
```



```
thexpo@VICTUS:~$ nano f6.sh  
thexpo@VICTUS:~$ bash f6.sh  
shell = /bin/bash  
path = /usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/usr/lib/wsl/lib:/mnt/c/Program Files/Common Files/Oracle/Java/javapath:/mnt/c/Program Files (x86)/Common Files/Oracle/Java/javapath:/mnt/c/windows/system32:/mnt/c/windows/system32/Wbem:/mnt/c/windows/System32/WindowsPowerShell/v1.0:/mnt/c/windows/System32/OpenSSH:/mnt/c/Program Files (x86)/NVIDIA Corporation/PhysX/Common:/mnt/c/Program Files/NVIDIA Corporation/NVIDIA nvdlsr:/mnt/c/Users/Administrator/AppData/Local/Microsoft/WindowsApps:/mnt/c/Program Files/HP/OMEN-Broadcast/Common:/mnt/c/Program Files/Git/cmd:/mnt/c/MingW/bin:/mnt/c/Program Files/dotnet:/mnt/c/Program Files/MySQL/MySQL Server 8.0/bin:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python312:/mnt/c/Program Files/Java/jdk-22:/mnt/c/Program Files/MongoDB/mongosh-2.3.1-win32-x64/bin:/mnt/c/WINDOWS/system32:/mnt/c/WINDOWS:/mnt/c/WINDOWS/System32/Wbem:/mnt/c/WINDOWS/System32/WindowsPowerShell/v1.0:/mnt/c/WINDOWS/System32/OpenSSH:/mnt/c/MingW/bin:/mnt/c/Program Files/nodejs:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python312/Scripts:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python312:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python310/Scripts:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python310:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python39/Scripts:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python39:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python311/Scripts:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Python311:/mnt/c/Program Files/MySQL/MySQL Shell 8.0/bin:/mnt/c/Users/expo7/AppData/Local/Programs/Python/Launcher:/mnt/c/Users/expo7/AppData/Local/Microsoft/WindowsApps:/mnt/c/Users/expo7/AppData/Local/Programs/Microsoft VS Code/bin:/mnt/c/Users/expo7/.dotnet/tools:/mnt/c/Users/expo7/AppData/Roaming/npm:/snap/bin:/home/thexpo/.flutter-spy:/home/thexpo/.flutter-spy  
home = /home/thexpo
```

Write a shell script to create two files. Accept file names from user.



```
thexpo@VICTUS: ~  
GNU nano 7.2 f7.sh  
#echo "Enter the name for first file: "  
#read file1  
#echo "Enter the name for second file: "  
#read file2  
touch $file1 $file2  
#echo "The creation of two files name $file1 and $file2 was successful!"
```

```
thexpo@VICTUS: ~  
thexpo@VICTUS:~$ nano f7.sh  
thexpo@VICTUS:~$ bash f7.sh  
Enter the name for first file:  
physics  
Enter the name for second file:  
maths  
The creation of two files name physics and maths was successful!
```

Write a shell script to create two directories. Accept directories name from Command line.

```
GNU nano 7.2 f8.sh  
dir1=$1  
dir2=$2  
  
mkdir -p "$dir1" "$dir2"  
  
echo "Directory name $dir1 and $dir2 were created successfully"
```

```
thexpo@VICTUS: ~  
thexpo@VICTUS:~$ nano f8.sh  
thexpo@VICTUS:~$ bash f8.sh second_year third_year  
Directory name second_year and third_year were created successfully
```

Write a shell script to copy file content of one file to another file. Accept files names from command line argument.

```
GNU nano 7.2 f9.sh  
file1=$1  
file2=$2  
cat "$file1"  
cat "$file2"  
cp "$file1" "$file2"  
echo "After all contents of $file1 has been moved into $file2"  
cat "$file2"
```

```
thexpo@VICTUS: ~  
thexpo@VICTUS:~$ nano f9.sh  
thexpo@VICTUS:~$ bash f9.sh sourcefile desfile  
This is the sourcefile  
This is destinationfile  
After all contents of sourcefile has been moved into desfile  
This is the sourcefile
```

Write a shell script to rename the file name. Accept old filename and new filename from command line argument.

```
GNU nano 7.2 f10.sh  
cat "$1"  
cat "$2"  
mv "$1" "$2"  
echo "file name $1 has been changed into $2"  
cat "$1"  
cat "$2"
```

Read 6 lines

Help Exit Write Out Read File Where Is Replace Cut Paste Execute Justify Location Go To Line Undo Redo Set Mark Copy To Bracket Where Was

```
thexpo@VICTUS: ~  
thexpo@VICTUS:~$ nano f10.sh  
thexpo@VICTUS:~$ bash f10.sh sourcefile desfile  
This is sourcefile 2  
This is destinationfile 2  
file name sourcefile has been changed into desfile  
cat: sourcefile: No such file or directory  
This is sourcefile 2
```

Write a shell script to perform arithmetic operation of integer data.

```
GNU nano 7.2 f11.sh  
echo "Enter the 1st number"  
read num1  
echo "Enter the 2nd number"  
read num2  
  
echo "addition operation =" $((num1 + num2))  
echo "subtraction operation =" $((num1 - num2))  
echo "multiplication operation =" $((num1 * num2))  
echo "division operation =" $((num1 / num2))
```

Read 9 lines

Help Exit Write Out Read File Where Is Replace Cut Paste Execute Justify Location Go To Line Undo Redo Set Mark Copy To Bracket Where Was

```
thexpo@VICTUS: ~  
thexpo@VICTUS:~$ nano f11.sh  
thexpo@VICTUS:~$ bash f11.sh  
Enter the 1st number  
10  
Enter the 2nd number  
20  
addition operation = 30  
subtraction operation = -10  
multiplication operation = 200  
division operation = 0
```

Write a shell script to perform arithmetic operation of float data.

```
GNU nano 7.2 f12.sh  
#!/bin/bash  
echo "Enter the 1st number"  
read float1  
echo "Enter the 2nd number"  
read float2  
  
echo "Addition operation = $(echo "scale=2; $float1 + $float2" | bc)"  
echo "Subtraction operation = $(echo "scale=2; $float1 - $float2" | bc)"  
echo "Multiplication operation = $(echo "scale=2; $float1 * $float2" | bc)"  
echo "Division operation = $(echo "scale=2; $float1 / $float2" | bc)"
```

```
thexpo@VICTUS: ~  
thexpo@VICTUS:~$ nano f12.sh  
thexpo@VICTUS:~$ bash f12.sh  
Enter the 1st number  
10.5  
Enter the 2nd number  
11.3  
Addition operation = 21.8  
Subtraction operation = -.8  
Multiplication operation = 118.65  
Division operation = .92
```