

# **EXP NO - 4**

CST 206 - Operating Systems Lab

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Roll No: 21

## Exercise1

Shell script-scientific calculator.

GNU nano 4.8

calculator.sh

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

```
if [ "$1" == "on" ]; then
```

```
echo "
```

Calculator Menu

- Natural Log [ l(value) ]

- Exponential [ e(value) ]

- Square Root [ sqrt(value) ]

- Modulus [ a%b ]

- Sine [ s(value) ]

- Cosine [ c(value) ]

- Addition [ a+b ]
- Substraction [ a-b ]
- Multiplication [ a\*b ]
- Division [ a/b ]

#To Turn Off [ OFF ]

"

```
while true
do
echo -n "Operation : "
read op
if [ "$op" == "OFF" ]; then
break
fi

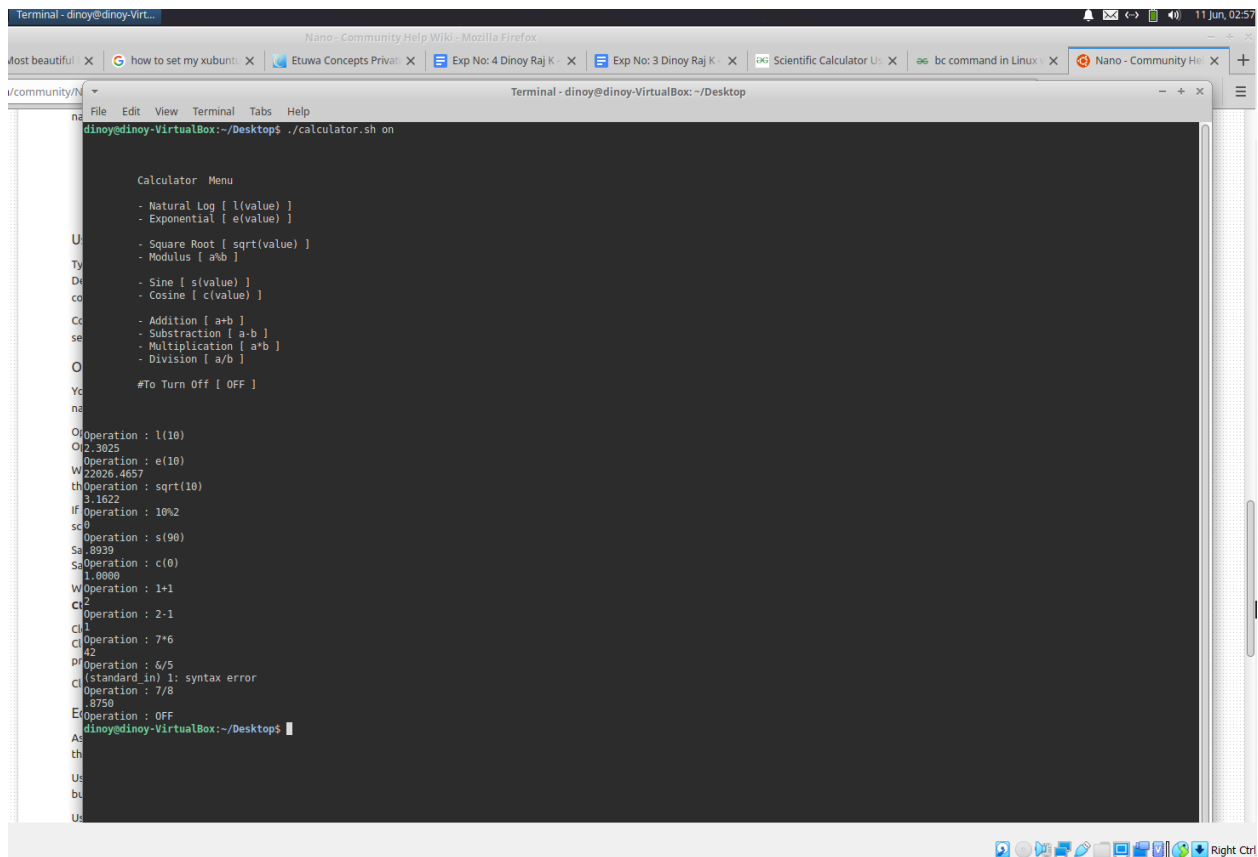
if [[ "$op" == "*" ]]; then
echo "scale=0;$op" | bc -l -q
else
echo "scale=4;$op" | bc -l -q
fi

done

else
echo "You Should Pass "on" As An Argument Inorder To Turn On The Calculator"
fi
```

[ Read 49 lines ]

^G Get Help    ^O Write Out    ^W Where Is    ^K Cut Text    ^J Justify    ^C Cur Pos    M-U  
Undo           M-A Mark Text M-] To Bracket    M-Q Previous        ^B Back  
^X Exit        ^R Read File    ^\ Replace       ^U Paste Text    ^T To Spell    ^\_ Go To Line    M-E  
Redo           M-6 Copy Text ^Q Where Was        M-W Next        ^F Forward



The screenshot shows a terminal window titled "Terminal - dinoy@dino-VirtualBox: ~/Desktop". The terminal displays the output of a script named "calculator.sh". The script's output is as follows:

```
Calculator Menu
- Natural Log [ l(value) ]
- Exponential [ e(value) ]
- Square Root [ sqrt(value) ]
- Modulus [ a%b ]
- Sine [ s(value) ]
- Cosine [ c(value) ]
- Addition [ a+b ]
- Subtraction [ a-b ]
- Multiplication [ a*b ]
- Division [ a/b ]
#To Turn Off [ OFF ]

Operation : l(10)
O2.3025
Operation : e(10)
W22026.4657
thOperation : sqrt(10)
3.1622
If Operation : 10%2
sc0
Operation : s(90)
sa.8939
saOperation : c(0)
1.0000
WOperation : 1+1
Cl2
Operation : 2-1
Cl1
Operation : 7*6
Cl42
PrOperation : 6/5
Cl(standard in) 1: syntax error
Operation : 7/8
.8750
EOperation : OFF
dinoy@dino-VirtualBox:~/Desktop$
```

The terminal window also shows a Nano editor interface with a menu bar (File, Edit, View, Terminal, Tabs, Help) and a status bar at the bottom indicating the current line and column (11 Jun, 02:57).