

LAB 03-04

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Submission:

Requirement

All the capture must be combination with full the windows **including your accounts on the windows and the Linux OS (if it is not, you will be taken 0 mark)**. Should be use the capture in windows with jpg format to reduce the file size with your submitting

You upload to LMSDN. Your created file should be named like **<class>-<name><roll number>-Lab-01**, e.g. **SE174020-QuangTV-HE150023-Lab01.DOCX**

Starting Terminal: Ctrl-Alt-T

1. Managing Process

1.1 At your home directory, perform the following function:

Execute command: *ps -e*

- a) What is the first process in the listing? What is the PID?
- b) In the listing, find the process ps and specify its PID.

1.2 Launch the Firefox web browser.

- Using the same command in 1.1, find the firefox process and specify its PID
pgrep <option> <parameter>: list process following name, properties ... (find the process IDs of a running program)
- End the Firefox process using kill command.

1.3 Execute command *man ps*

- Explain the result

1.4 Some System command:

- a) Vmstat: View status of virtual memory
- b) free: Display Ram information
- c) pstree -np:
- d) sudo lshw -short: display your Linux hardware information:

2. Shell scripting

Exercise 1:

Write a shell script to ask your name, class's name and enrollment number and print it on the screen.

Enter your name: Nham

Enter your class: SE17A01

Enter the enrollment: OSG202_2022

Your name is Nham, and enrollment is OSG202_2022. You are in class SE17A01.

Exercise 2:

Write a shell script to find the greatest number among the 3 given numbers.

Enter 3 numbers: 10 8 29

The greatest number is 29.

Exercise 3:

Write a shell script to calculate the sum from 1 to n, where n is entered from the keyboard

Enter a positive integer: 5

Result: 1+2 +...+5=15

Exercise 4:

Code a program named **doOpt.sh** so you can pass 3 parameters to this program. The program will calculate the result as following and show it in the screen.

/bin/sh doOpt.sh 8 3 4

Result 1: 8*3*4 = 96

Result 2: 8+3+4 = 15

Result 3: (8+3)*4=44

Result 4: (8-3)*4=20

/bin/sh doOpt.sh 2 3

You must input 3 numbers to do this operator!

Exercise 5:

Write a program to display time, the day of month, month or year in Vietnamese depending on what user want to know?

If user enters "time": output should be the current time.

If user enters "day": output should be the current day of month.

If user enters "month": output should be the current month in number.

If user enters "year": output should be the current year.

Test case: The current date is: Thu 06/23/2022 9:23:35

What do you want to know?: day

Ngày: 23

What do you want to know? : month

Thang: 6

What do you want to know? : year
Nam: 2022
What do you want to know? : time
Thoi gian: 9 gio, 23 phut, 35 giay

Exercise 6:

Code a program to check the input name is a file, a folder or the other case.

If it is a file, then display the 2 first lines of the file's content.

If it is a folder then display all files and folders belong to this folder. Moreover, if it is a folder you must display all its empty folders in detail and number of empty folders.

Then, delete all above empty folders.

Please enter file name: afile

afile is invalid

Do you want to continue(y/n)? y

Please enter file name: (eg. Test4.sh)

Test4.sh is an ordinary file.

2 first lines of case_demo's content:

#!/bin/sh

Echo "Enter a number"

Do you want to continue(y/n)? y

Please enter file name: (eg. OSG202)

OSG202is a directory.

- List subdir and files in OSG202:

F1 F2 test.txt demo.sh dm1.sh

- Empty folders are:(2)

F1 F2

Do you want to continue(y/n)? n