

# Linux Operating System

## Exercise 1

1. Create a directory cdsclab: `mkdir -vp cdsclab/{ex1/, ex2/, ex3/{info,product}}`
2. Go to `cdsclab/ex1/` directory and create 5 files and their name should contain '00'
3. Use 'ls' to list files, go to your home directory
4. From the current directory enter to the system root directory using 'pwd' and 'cd' commands
5. Go to the previous directory from the current directory  
In the ex1 directory, create a directory called 'first' with privilege 777
7. Go to home directory, and find out what's inside one of these files?

`cat .profile`

`less .profile`

8. Return back to ex1 directory and create two files with suffixes '.log' and remove them.
9. Create a file called aa.txt and write something on it with your favorite editor. Move the file aa.txt to the 'first' directory. If the file exists, you will be asked whether to overwrite it before overwriting. `mv -i aa.txt first`

10. You can recall previous commands by using the up-arrow and down-arrow keys. Which command do you use to list the previous commands?
11. What will be the output of the command:  
`ls -l | grep 00 | wc > output`
12. What will be the output of the command:  
`ls /sbin | sort > sbin.txt`
13. What will be the output of the command:  
`history | grep ls`
14. On your Linux host, there are many processes running at time. However, one information can uniquely identify a process. How is it called?
15. You are asked by your system administrator to identify all processes that you own on the host. Which command would you run to do that?
16. What syntax is used on Linux in order to execute a process in the background?
17. What command displays processes as a tree on Linux?
18. Create a symbolic link to the file aa.txt to bb.txt using the following command: `cp -s aa.txt bb.txt`
19. Input 'aa.txt' file with line number and output 'output.txt' file, replace multi-line blank line with one line output. You can use the following command: `cat -ns aa.txt > output.txt`

20. To reverse the contents of the 'output.txt' file, you can use 'tac' command