## National University of Computer and Emerging Sciences



## Laboratory Exercise 01

*for*

# Computer Networks

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| Objectives:  * Linux Commands * Practice Problems |

**Note: Carefully read the following instructions (***Each instruction contains a weightage***)**

1. Make a Microsoft Word file and paste all of your code with all possible screenshots of every **task output and submit on Google classroom within given time.**
2. Please submit your file in this format rollno\_Name.
3. Do not submit your assignment after deadline.
4. Do not copy code from any source otherwise you will be penalized with negative marks.

**FAST School of Computer Science**

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| **Problem 1: Enter the following commands on LINUX prompt, and try to interpret the output.**  **Give description of each command in at least one line.** |

* echo hello world
* echo \*
* passwd
* date
* hostname
* arch
* uname -a
* uptime
* who am i
* who
* id
* last
* w
* top (you may need to press q to quit)
* echo $SHELL
* man ls (you may need to press q to quit)
* man who (you may need to press q to quit)
* clear
* cal 2000
* cal 9 1759
* echo 5+4 | bc -l
* yes please (you may need to press Ctrl-c to quit)
* time sleep 5
* history
* chown
* chmod
* >
* >>
* touch
* df
* what if
* less
* more
* mv
* rm
* whatis
* mkdir

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| **Problem 2: Try the following Command sequence** |

* cd
* pwd
* ls -al
* cd .
* pwd     (where did that get you?)
* cd ..
* pwd
* ls -al
* cd ..
* pwd
* ls -al
* cd ..
* pwd     (what happens now)
* cd /etc
* ls -al | more
* cat passwd
* cd -
* pwd

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| **Problem 3: Answer the following Questions.** |

1. Continue to explore the filesystem tree using cd, ls, pwd and cat. Look in /bin, /usr/bin, /sbin, /tmp and /boot. What do you see?
2. Explore /dev. Can you identify what devices are available? Which are character-oriented and which are block-oriented? Can you identify your tty (terminal) device (typing who am i might help); who is the owner of your tty (use ls -l)?
3. Explore /proc. Display the contents of the files interrupts, devices, cpuinfo, meminfo and uptime using cat. Can you see why we say /proc is a pseudo-filesystem which allows access to kernel data structures?
4. Change to the home directory of another user directly, using cd ~username.
5. Change back into your home directory.
6. Make subdirectories called work and play.
7. Delete the subdirectory called work.
8. Copy the file /etc/passwd into your home directory.
9. Move it into the subdirectory play.
10. What is the difference between listing the contents of directory play with ls -l and ls -L?
11. Create a file called hello.txt that contains the words "hello world".
12. Now change the permissions of the hello.txt file
13. Imagine you were working on a system and someone accidentally deleted the ls command (/bin/ls). How could you get a list of the files in the current directory? Try it.
14. How would you create and then delete a file called "$SHELL"? Try it.
15. How would you create and then delete a file that begins with the symbol #? Try it.
16. How would you create and then delete a file that begins with the symbol -? Try it.
17. Experiment with the options on the ls command. What do the d, i, R and F options do?