



MADAN MOHAN MALAVIYA UNIVERSITY OF TECHNOLOGY

Gorakhpur

Subject: Linux Lab

Course Code: BIT-153

Linux Lab Assignment:

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Programs

1. Installation of Linux operating system using virtualization technique
2. Understanding and practice of various Linux commands
3. Creation/usage of various types of files supported by Linux
4. Practice of Computer networking commands
5. Write a shell script that receives any number of file names as arguments checks if every argument supplied is a file or a directory and reports accordingly. Whenever the argument is a file, the number of lines on it is also reported.
6. To Find the Area of Triangle we need to height and base. Given formula show that $\text{Area} = (\text{Height} * \text{Base})/2$.
7. Write a C Program for find a greatest number among given three numbers, the number may be Integer, Float, Double and numbers Input given by User.
8. Write a program in C to find the number of VOWELS and CONSONANTS in given string.
9. Write a program in 'C' to interchange (swap) the values of two variables
 - (a) Using third variable
 - (b) Without using third variable
10. Write a C program that checks that the given numbers is palindrome or not.

Make files for all programs and Linux commands

***Last date of File checking 21/05/2022**

Linux Commands

1.	ls	Directory listing
2.	ls -al	Formatted listing with hidden files
3.	ls -lt	Sorting the Formatted listing by time modification
4.	cd dir	Change directory to dir
5.	cd	Change to home directory
6.	pwd	Show current working directory
7.	mkdir dir	Creating a directory dir
8.	cat >file	Places the standard input into the file
9.	more file	Output the contents of the file
10.	head file	Output the first 10 lines of the file
11.	tail file	Output the last 10 lines of the file
12.	tail -f file	Output the contents of file as it grows,starting with the last 10 lines
13.	touch file	Create or update file
14.	rm file	Deleting the file
15.	rm -r dir	Deleting the directory
16.	rm -f file	Force to remove the file
17.	rm -rf dir	Force to remove the directory dir
18.	cp file1 file2	Copy the contents of file1 to file2
19.	cp -r dir1 dir2	Copy dir1 to dir2;create dir2 if not present
20.	mv file1 file2	Rename or move file1 to file2,if file2 is an existing directory
21.	ln -s file link	Create symbolic link link to file

1.	ps	To display the currently working processes
2.	top	Display all running process
3.	kill pid	Kill the process with given pid
4.	killall proc	Kill all the process named proc
5.	pkill pattern	Will kill all processes matching the pattern
6.	bg	List stopped or background jobs, resume a stopped job in the background
7.	fg	Brings the most recent job to foreground
8.	fg n	Brings job n to the foreground

File permission		
1.	chmod octal file	Change the permission of file to octal, which can be found separately for user, group, world by adding, <ul style="list-style-type: none"> • 4-read(r) • 2-write(w) • 1-execute(x)
Searching		
1.	grep pattern file	Search for pattern in file
2.	grep -r pattern dir	Search recursively for pattern in dir
3.	command grep pattern	Search pattern in the output of a command
4.	locate file	Find all instances of file
5.	find . -name filename	Searches in the current directory (represented by a period) and below it, for files and directories with names starting with filename
6.	pgrep pattern	Searches for all the named processes, that matches with the pattern and, by default, returns their ID
System Info		
1.	date	Show the current date and time
2.	cal	Show this month's calendar
3.	uptime	Show current uptime
4.	w	Display who is on line
5.	whoami	Who you are logged in as

6.	finger user	Display information about user
7.	uname -a	Show kernel information
8.	cat /proc/cpuinfo	Cpu information
9.	cat proc/meminfo	Memory information
10.	man command	Show the manual for command
11.	df	Show the disk usage
12.	du	Show directory space usage
13.	free	Show memory and swap usage
14.	whereis app	Show possible locations of app
15.	which app	Show which applications will be run by default
Compression		
1.	tar cf file.tar file	Create tar named file.tar containing file
2.	tar xf file.tar	Extract the files from file.tar
3.	tar czf file.tar.gz files	Create a tar with Gzip compression
4.	tar xzf file.tar.gz	Extract a tar using Gzip
5.	tar cjf file.tar.bz2	Create tar with Bzip2 compression
6.	tar xjf file.tar.bz2	Extract a tar using Bzip2
7.	gzip file	Compresses file and renames it to file.gz
8.	gzip -d file.gz	Decompresses file.gz back to file
Network		
1.	ping host	Ping host and output results
2.	whois domain	Get whois information for domains
3.	dig domain	Get DNS information for domain
4.	dig -x host	Reverse lookup host
5.	wget file	Download file
6.	wget -c file	Continue a stopped download

Shortcuts		
1.	ctrl+c	Halts the current command
2.	ctrl+z	Stops the current command, resume with fg in the foreground or bg in the background
3.	ctrl+d	Logout the current session, similar to exit
4.	ctrl+w	Erases one word in the current line
5.	ctrl+u	Erases the whole line
6.	ctrl+r	Type to bring up a recent command
7.	!!	Repeats the last command
8.	exit	Logout the current session