**Assignment 2**

**Part A**

What will the following commands do?

• echo "Hello, World!"

-Display lines of text or String.

-It is mostly used in shell scripts.

• name="Productive"

- In above command we create a variable name and assign value productive to it.

• touch file.txt

-if you want to create file use touch command.

• ls -a

-list all the files and directory of current working directory

• rm file.txt

-Used to remove file and recursive directory

• cp file1.txt file2.txt

-This command is used to copy files and directory.

• mv file.txt /path/to/directory/

- This command used to move or rename files and directories.

• chmod 755 script.sh

- This command used to revoke the file or directory permissions

• grep "pattern" file.txt

-This command is used to search for a specific pattern of text within a file.

• kill PID

-This command in Linux is used to send a signal to a process.

-The command is typically used to terminate a process.

• mkdir mydir && cd mydir && touch file.txt && echo "Hello, World!" > file.txt && cat file.txt

- Creates a directory named mydir.

-Navigates into mydir.

-Creates an empty file named file.txt.

Displays the contents of file.txt, which will be Hello, World!

• ls -l | grep ".txt"

-This command is combination of two commands ls -l and pipe operator and grep

-filters this list to show only lines that contain .txt, effectively showing only the detailed information of files with a .txt extension.

• cat file1.txt file2.txt | sort | uniq

- cat file1.txt file2.txt- Cat command concatenates the file1.txt and file2.tx

-pipe-pipe is operator which take output from command

-Sort-This command sort the lines of text from the combined output

-uniq- Removes any consecutive duplicate lines, leaving only unique lines.

• ls -l | grep "^d"

- The ls -l command lists all files and directories in the current directory

- Pipe is operator which takes output from Is-I command and pass input to grep command

- grep command filters this list to show only the lines that begin with d, which correspond to

directories.

• grep -r "pattern" /path/to/directory/

-The command grep -r "pattern" /path/to/directory/ searches for the specified "pattern" within all files and subdirectories under /path/to/directory/.

- It returns all matching lines, along with the file names and line numbers where the pattern is found.

• cat file1.txt file2.txt | sort | uniq –d

-cat file1.txt file2.txt - This command concatenates file1.txt and file2.txt

-pipe - This is operator takes output from cat command and passes input to sort command

-sort – This command combine file1.txt and file2.txt sorted into alphabetical order

-Uniq-d- uniq filters out duplicate lines, but with the -d option it only displays lines that are duplicated

• chmod 644 file.txt

-chmod command is used to set the permissions for a file or directory

-644 is numerical representation

**6** = Read (4) + Write (2) = rw--

**4** = Read (4) = r--

**4** = Read (4) = r—--

• cp -r source directory destination directory

-cp command is used to copy files and directories The command cp -r source directory destination directory copies the entire source directory and all its contents to the destination directory.

• find /path/to/search -name "\*.txt"

Find- find command is used to search files and directories

- The -name option specifies the pattern to match file names against.

- "\*.txt" is the pattern used to match files with a .txt extension. The asterisk (\*) is a wildcard that matches any sequence of characters, so \*.txt will match any file that ends with .txt.

searches through the directory specified by /path/to/search and all its subdirectories It looks for files whose names end with .txt the command will print the paths of all .txt files it finds.

• chmod u+x file.txt

This is the command used to change the file permissions.

u+x

- u stands for user

- + adds a permission.

- x stands for "execute."

u+x means adding execute permission for the file's owner (user).

file.txt:

This is the file whose permissions you are modifying.

• echo $PATH-

echo $PATH prints the directories listed in the PATH environment variable this helps you understand which directories are being searched for executable files when you run commands.

**Part B**

Identify True or False:

1. ls is used to list files and directories in a directory. -True
2. mv is used to move files and directories. -True
3. cd is used to copy files and directories. -False
4. pwd stands for "print working directory" and displays the current directory. - True
5. grep is used to search for patterns in files. -True
6. chmod 755 file.txt gives read, write, and execute permissions to the owner, and read and execute permissions to group and others. - True
7. mkdir -p directory1/directory2 creates nested directories, creating directory2 inside directory1 if directory1 does not exist - True
8. rm -rf file.txt deletes a file forcefully without confirmation -True

**Identify the Incorrect Commands:**

1. chmodx is used to change file permissions.

2. cpy is used to copy files and directories.

3. mkfile is used to create a new file.

4. catx is used to concatenate files.

5. rn is used to rename files.

1.chmodx is used to change file permissions**.**

Incorrect. The correct command is chmod

2. cpy is used to copy files and directories.

Incorrect- The correct command is

3. mkfile is used to create a new file.

Incorrect - While mkfile can be used on some systems to create a file with a specified size, the more commonly used commands are touch or echo

4. catx is used to concatenate files.

Incorrect-The correct command is cat

5. rn is used to rename files.

Incorrect- The correct command is mv