Assignment 2 Module1

1.echo "Hello, World!"

```
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % mkdir assign2
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % cd assign2
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo "hellow, world"
hellow, world
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 %
```

2. name="Productive"

```
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % mkdir assign2
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % cd assign2
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo "hellow, world"
hellow, world
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % name = "prouductive"
zsh: command not found: name
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo name="Productive"
name=Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo name = "Productive"
name = Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % name="Productive"
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo $name
Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 %
```

3. touch file.txt

to make a new file which is named file.txt

4. ls -a

```
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % mkdir assign2
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % cd assign2
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo "hellow, world"
hellow, world
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % name = "prouductive"
zsh: command not found: name
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo name="Productive"
name=Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo name = "Productive"
name = Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % name="Productive"
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo $name
Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % touch file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls assign2
ls: assign2: No such file or directory
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls
file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls -a
.                    ..                 file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 %
```

5 . rm file.txt

 to delete the file name file.txt

6. cp file1.txt file2.txt

to copy the command from file1 to file 2

```
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % mkdir assign2
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % cd assign2
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo "hellow, world"
hellow, world
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % name = "prouductive"
zsh: command not found: name
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo name="Productive"
name=Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo name = "Productive"
name = Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % name="Productive"
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo $name
Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % touch file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls assign2
ls: assign2: No such file or directory
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls
file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls -a
.                    ..                 file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % rm file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % nano file1.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % touch file2.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % cat file1.txt
abcd in file 1
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % cp file1.txt file2.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % cat file2.txt
abcd in file 1
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 %
```

7. mv file.txt /path/to/directory/

to move or rename a file(mv file.txt newfile.txt)

8. chmod 755 script.sh

The chmod command is used to change the permissions of a file in Unix-based systems.

Breakdown of `755` Permissions:

- **7** (Owner): Read (`r`), write (`w`), and execute (`x`) permissions.
- **5** (Group): Read (`r`) and execute (`x`) permissions.
- **5** (Others): Read (`r`) and execute (`x`) permissions.

9.grep "pattern" file.txt

to search a pattern in file.txt

```
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % echo $name
Productive
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % touch file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls assign2
ls: assign2: No such file or directory
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls
file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls -a
.              ..              file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % rm file.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % nano file1.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % touch file2.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % cat file1.txt
abcd in file 1
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % cp file1.txt file2.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % cat file2.txt
abcd in file 1
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % mv file1.txt Desktop
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % nano script.sh

(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % chmod 755 script.sh
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls -l
total 24
-rw-r--r--  1 vaibhavghangale  staff  15 Aug 30 15:17 Desktop
-rw-r--r--  1 vaibhavghangale  staff  15 Aug 30 15:17 file2.txt
-rwxr-xr-x  1 vaibhavghangale  staff  29 Aug 30 15:32 script.sh
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % cat file1.txt
cat: file1.txt: No such file or directory
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % ls
Desktop        file2.txt        script.sh
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % nano file1.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % grep "abc" file1.txt
abc def ghi jkl mno pqr sty uvw xyz
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % nano file1.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % grep "def" file.txt
grep: file.txt: No such file or directory
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % grep "abc" file1.txt
abc
(base) vaibhavghangale@VAIBHAVs-MacBook-Air assign2 % grep "def" file1.txt
```

10. kill PID

To kill a process with a specific Process ID (PID), you use the command:

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

```
(base) vaibhavghangale@VAIBHAVs-MacBook-Air ~ % mkdir mydir && cd mydir && touch file.txt && echo "Hello, World!" > file.txt && cat file.txt
cmdand cmdand cmdand dquote>
```

12. ls -l | grep ".txt"

list the file with txt extention

```
(base) vaibhavghangale@VAIBHAVs-MacBook-Air shell % nano p10
(base) vaibhavghangale@VAIBHAVs-MacBook-Air shell % bash p10
Enter a number: 5
Fibonacci sequence up to 5:
0 1 1 2 3 5
(base) vaibhavghangale@VAIBHAVs-MacBook-Air shell % ls -l | grep ".txt"
(base) vaibhavghangale@VAIBHAVs-MacBook-Air shell % ls -l
total 56
-rw-r--r--  1 vaibhavghangale  staff   97 Aug 31 09:59 p1
-rw-r--r--  1 vaibhavghangale  staff  184 Aug 31 15:43 p10
-rw-r--r--  1 vaibhavghangale  staff   68 Aug 31 10:21 p2
-rw-r--r--  1 vaibhavghangale  staff   55 Aug 31 10:32 p3
-rw-r--r--  1 vaibhavghangale  staff   84 Aug 31 12:48 p7
-rw-r--r--  1 vaibhavghangale  staff   30 Aug 31 12:51 p8
-rw-r--r--  1 vaibhavghangale  staff  187 Aug 31 15:26 p9
(base) vaibhavghangale@VAIBHAVs-MacBook-Air shell % ls
p1      p10     p2      p3      p7      p8      p9
(base) vaibhavghangale@VAIBHAVs-MacBook-Air shell % touch text1.txt text2.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air shell % ls -l | grep ".txt"
-rw-r--r--  1 vaibhavghangale  staff    0 Aug 31 18:25 text1.txt
-rw-r--r--  1 vaibhavghangale  staff    0 Aug 31 18:25 text2.txt
(base) vaibhavghangale@VAIBHAVs-MacBook-Air shell %
```

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

concatinate file1 and file2 and pile them to sort and remove duplicate

14. ls -l | grep "^d"

filter out only line with starting d . In this case directories which start with d

15. grep -r "pattern" /path/to/directory/

to search for a specific string or pattern within all files in a given directory

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

to find and display duplicate lines that appear in the combined contents of two text files.

17 chmod 644 file.txt

0 nothing

1 execute x

2 write w

3 w+x

4 read r

5 r+x

6 r+w

7 r+w+x

so 644 means rw-r - - r- -

18. cp -r source_directory destination_directory

used to copy a directory and its contents from one location to another

19. find /path/to/search -name "*.txt"

to search for files with a specific name pattern within a directory

20. chmod u+x file.txt

giving permission to user to execute

21. echo $PATH

to show value of PATH

Part B

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 (change directory)
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.

INVALID COMMOND (chmod)

2. cpy is used to copy files and directories.

INVALID COMMOND(cp)

3. mkfile is used to create a new file.

INVALID COMMOND (touch)

4. catx is used to concatenate files.

INVALID COMMOND (cat)

5. rn is used to rename files.

INVALID COMMOND (mv)