

What will the following commands do?

- **echo "Hello, World!"** :-echo command is used to print the string .
- **name="Productive"**:In shell script variable name store the “productive”;
- **touch file.txt**:Create new file in directory,create file name with file.txt
- **ls -a**:ls command use to show the list of directory and ls -a command show all directory list and also files.
- **rm file.txt** :Remove the file or delete the file from directory.
- **cp file1.txt file2.txt** :Copy the content of file named file1.txt into file2.txt.
- **mv file.txt /path/to/directory/** :
- **chmod 755 script.sh** :This command is used to change the modification means Give permission to files,Read ,Write,Execute the file script.sh.
- **grep "pattern" file.txt**:This command is use to search a particular pattern available in file.txt.

- **kill PID**

- **mkdir mydir && cd mydir && touch file.txt && echo "Hello, World!" > file.txt && cat file.txt** :In this Command Multiple operations done,Output of one command is used as input of another or next command.

1.In This command line First create new directory name mydir.

2.change the directory ,in that create new file name file.txt in that file write “hello world!,redirect with file.txt and display on terminal.

- **ls -l | grep ".txt"** :In this command list the files available in directory and search a for .txt file.display only .txt files.
- **cat file1.txt file2.txt | sort | uniq** :In this command line display the sort content of file1 and file2 uniq.
- **ls -l | grep "^d"**:This command display the list of directories only.Because grep “^d” search for directory .

- **grep -r "pattern" /path/to/directory/**
- **cat file1.txt file2.txt | sort | uniq -d**: cat command is used to display the content of file1.txt and file2.txt ,sort the content alphabetically and display the duplicate contents.
- **chmod 644 file.txt** :This command is used to give the read and write permission to owner of file.text and read permission for group and others.
- **chmod u+x file.txt** :this command is used to give execute permission for user of file.text.
- **echo \$PATH**

Part B

Identify True or False:

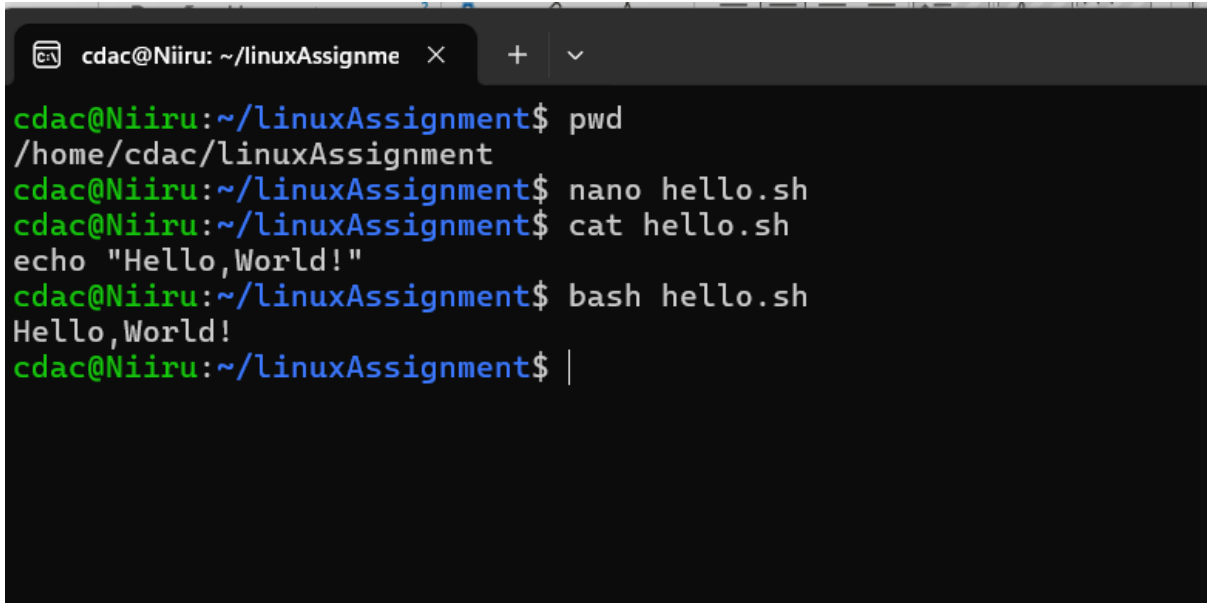
1. ls is used to list files and directories in a directory.:**True** ls command is used to print the all list of directoris and files.
2. mv is used to move files and directories. :**True**:mv is used to move the files
3. cd is used to copy files and directories. :**False**:cd command is used to change the 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**:grep command use to search particular pattern available in file.
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.:**False**

Identify the Incorrect Commands:

1. chmodx is used to change file permissions.:chmod used to change the file permissions.
2. cpy is used to copy files and directories.:cp used to copy file and directories.
3. mkfile is used to create a new file. :To create new file used **touch** command.
4. catx is used to concatenate files.:cat command is used to display the content.
5. rn is used to rename files.:mv is used to rename files.

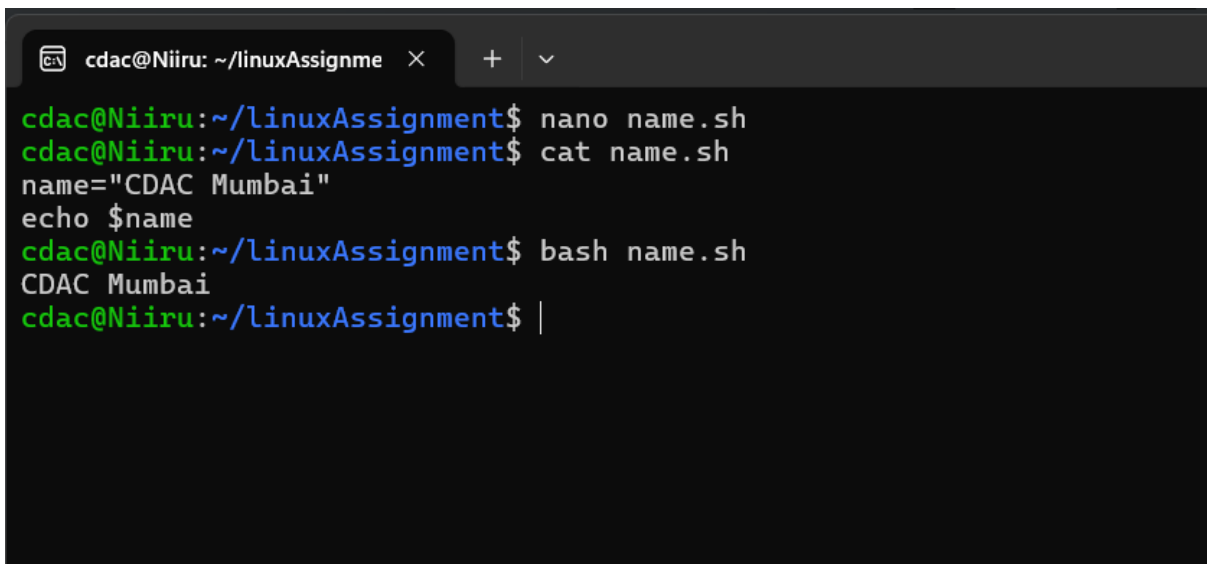
Part C

Question 1: Write a shell script that prints "Hello, World!" to the terminal.



```
cdac@Niiru: ~/linuxAssignme × + ∨  
cdac@Niiru:~/linuxAssignment$ pwd  
/home/cdac/linuxAssignment  
cdac@Niiru:~/linuxAssignment$ nano hello.sh  
cdac@Niiru:~/linuxAssignment$ cat hello.sh  
echo "Hello,World!"  
cdac@Niiru:~/linuxAssignment$ bash hello.sh  
Hello,World!  
cdac@Niiru:~/linuxAssignment$ |
```

Question 2: Declare a variable named "name" and assign the value "CDAC Mumbai" to it. Print the value of the variable.



```
cdac@Niiru: ~/linuxAssignme × + ∨  
cdac@Niiru:~/linuxAssignment$ nano name.sh  
cdac@Niiru:~/linuxAssignment$ cat name.sh  
name="CDAC Mumbai"  
echo $name  
cdac@Niiru:~/linuxAssignment$ bash name.sh  
CDAC Mumbai  
cdac@Niiru:~/linuxAssignment$ |
```

Question 3: Write a shell script that takes a number as input from the user and prints it.

```
cdac@Niiru: ~/linuxAssignme × + ~  
cdac@Niiru:~/linuxAssignment$ nano inputprint.sh  
cdac@Niiru:~/linuxAssignment$  
cdac@Niiru:~/linuxAssignment$ cat inputprint.sh  
echo "enter the numbers"  
echo "enter first number"  
read n1  
echo $n1 is first input  
echo "enter second number"  
read n2  
echo $n2 is second input  
cdac@Niiru:~/linuxAssignment$ bash inputprint.sh  
enter the numbers  
enter first number  
34  
34 is first input  
enter second number  
56  
56 is second input  
cdac@Niiru:~/linuxAssignment$ |
```

Question 4: Write a shell script that performs addition of two numbers (e.g., 5 and 3) and prints the result.

```
cdac@Niiru: ~/linuxAssignme × + ~  
cdac@Niiru:~/linuxAssignment$ nano add.sh  
cdac@Niiru:~/linuxAssignment$ cat add.sh  
echo "addition of two number"  
echo "enter first number"  
read a  
echo "enter second number"  
read b  
sum=`expr $a + $b`  
echo sum of two $a and $b is $sum  
  
cdac@Niiru:~/linuxAssignment$ bash add.sh  
addition of two number  
enter first number  
5  
enter second number  
3  
sum of two 5 and 3 is 8  
cdac@Niiru:~/linuxAssignment$ |
```

Question 5: Write a shell script that takes a number as input and prints "Even" if it is even, otherwise prints "Odd".

```
cdac@Niiru: ~/linuxAssignme × + v
cdac@Niiru:~/linuxAssignment$ nano evenodd.sh
cdac@Niiru:~/linuxAssignment$
cdac@Niiru:~/linuxAssignment$ cat evenodd.sh
echo "enter the Number"
read a
if [ `expr $a % 2` -eq 0 ]
then
echo "$a is even number"
else
echo "$a is odd number"
fi
cdac@Niiru:~/linuxAssignment$ bash evenodd.sh
enter the Number
22
22 is even number
cdac@Niiru:~/linuxAssignment$ bash evenodd.sh
enter the Number
55
55 is odd number
cdac@Niiru:~/linuxAssignment$ |
```

Question 6: Write a shell script that uses a for loop to print numbers from 1 to 5.

```
cdac@Niiru:~/linuxAssignment$ nano forloop.sh
cdac@Niiru:~/linuxAssignment$ cat forloop.sh
for a in 1 2 3 4 5 6 7
do
echo $a
done
cdac@Niiru:~/linuxAssignment$ bash forloop.sh
1
2
3
4
5
6
7
cdac@Niiru:~/linuxAssignment$ |
```

Question 7: Write a shell script that uses a while loop to print numbers from 1 to 5.

```
cdac@Niiru: ~/linuxAssignme × + v
cdac@Niiru:~/linuxAssignment$ nano whileloop.sh
cdac@Niiru:~/linuxAssignment$
cdac@Niiru:~/linuxAssignment$ cat whileloop.sh

a=1
while [ $a -lt 5 ]
do
    echo $a
    a=`expr $a + 1`
done
cdac@Niiru:~/linuxAssignment$ bash whileloop.sh
1
2
3
4
cdac@Niiru:~/linuxAssignment$ |
```

Question 8: Write a shell script that checks if a file named "file.txt" exists in the current directory. If it does, print "File exists", otherwise, print "File does not exist".

```
cdac@Niiru: ~/linuxAssignme × + v
cdac@Niiru:~/linuxAssignment$ nano fileExit.txt
cdac@Niiru:~/linuxAssignment$
cdac@Niiru:~/linuxAssignment$ cat fileExit.txt
if [ -e file.txt ]
then
    echo "file exist"
else
    echo "file not exist"
fi
cdac@Niiru:~/linuxAssignment$ bash fileExit.txt
file exist
cdac@Niiru:~/linuxAssignment$ bash file.txt
file.txt: line 1: cdac: command not found
warning: commands will be executed using /bin/sh
at> |
```

Question 9: Write a shell script that uses the if statement to check if a number is greater than 10 and prints a message accordingly.

```
cdac@Niiru: ~/linuxAssignme × + v
cdac@Niiru:~/linuxAssignment$ nano greater.txt
cdac@Niiru:~/linuxAssignment$ cat greater.txt
echo "enter the number"
read a
if [ $a -gt 10 ]
then
    echo "$a is greater than 10"
else
    if [ $a -eq 10 ]
then
        echo "$a is equal to 10"
    else
        echo "$a is smaller than 10"
    fi
fi
cdac@Niiru:~/linuxAssignment$ bash greater.txt
enter the number
13
13 is greater than 10
cdac@Niiru:~/linuxAssignment$ bash greater.txt
enter the number
5
5 is smaller than 10
cdac@Niiru:~/linuxAssignment$ bash greater.txt
enter the number
10
10 is equal to 10
cdac@Niiru:~/linuxAssignment$ |
```