What will the following commands do?

· echo "Hello, World!"

echo is used for display message

· name="Productive"

name=”Productive” variable name store a value Productive

· touch file.txt

Create a .txt file

· ls -a

Listing out all files

· rm file.txt

Removing that file from directory.

· cp file1.txt file2.txt

Creating copy of file1txt into another file as file2.txt

· mv file.txt /path/to/directory/

Move file.txt to another directory

· chmod 755 script.sh

It will give permission for owner read, write and execute.

groups read and execute. Others read and execute.

· grep "pattern" file.txt

It will search for pattern in file.txt

· kill PID

It will end the process with given process ID.

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

It will create a directory mydir

Then change the to mydir

Creates a file.txt and edit the txt file

Display the file.txt

· ls -l | grep ".txt"

List all file with extension .txt with detail information.

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

It will display the distinct sorted content from file1.txt and file2.txt

---

· ls -l | grep "^d"

List files with current directory with details information.

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

It will search for pattern in directory and subdirectory.

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

It will display the duplicate sorted content from file1.txt and file2.txt

· chmod 644 file.txt

It will give permission for owner read and write

Groups and other :- read

· cp -r source_directory destination_directory

Copy the source directory contents to destination directory.

· find /path/to/search -name "*.txt"

Find .txt file in given directory path.

· chmod u+x file.txt

It will give execute permission to owner.

· echo $PATH

It will show system directory for executable files.

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

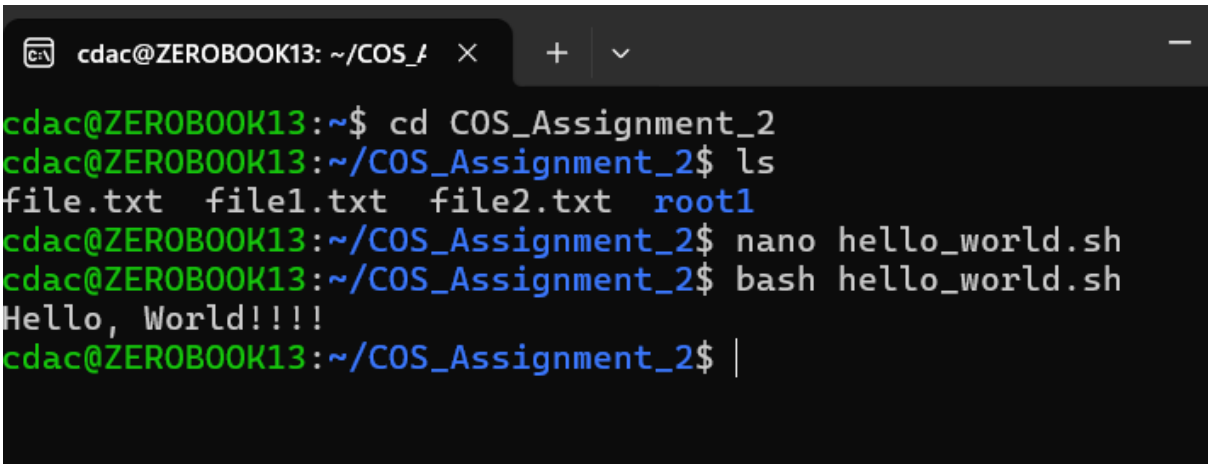
8. rm -rf file.txt deletes a file forcefully without confirmation.

FALSE

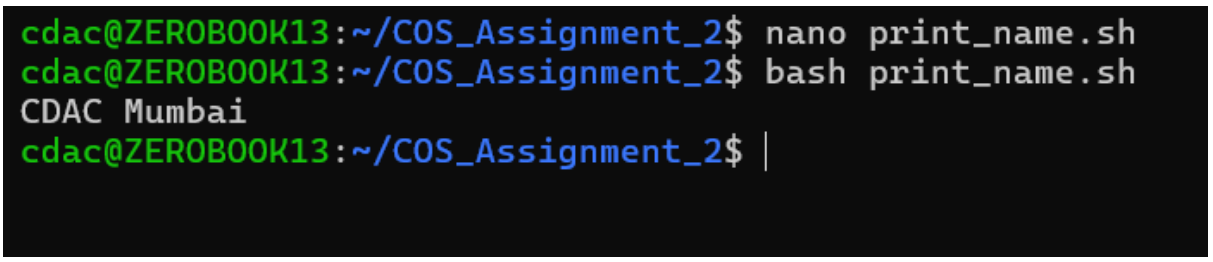
Identify the Incorrect Commands:

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

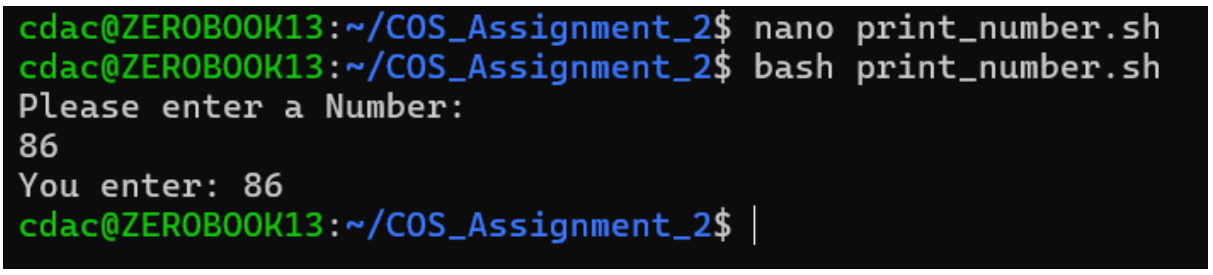
Question 1: Write a shell script that prints "Hello, World!" to the terminal.



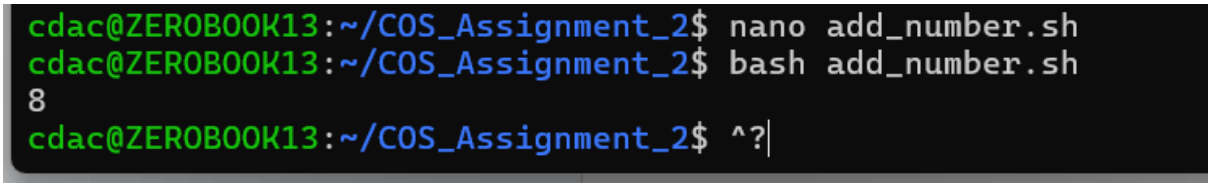
Question 2: Declare a variable named "name" and assign the value "CDAC Mumbai" to it. Print the value of the variable.



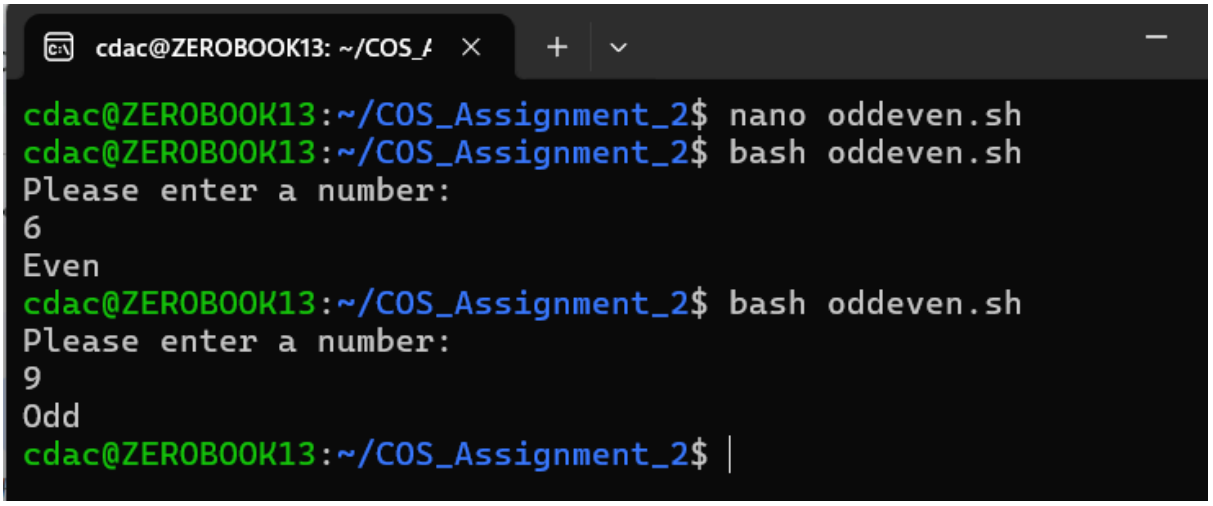
Question 3: Write a shell script that takes a number as input from the user and prints it.



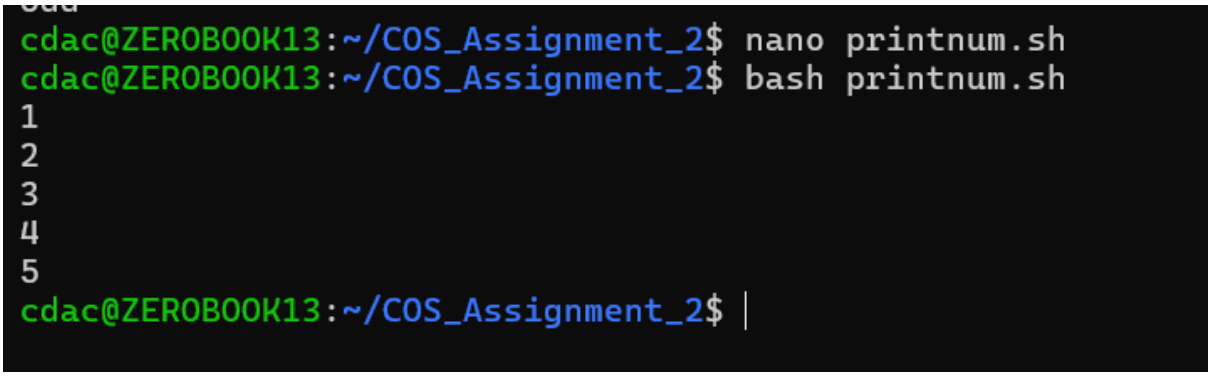
Question 4: Write a shell script that performs addition of two numbers (e.g., 5 and 3) and prints the result.



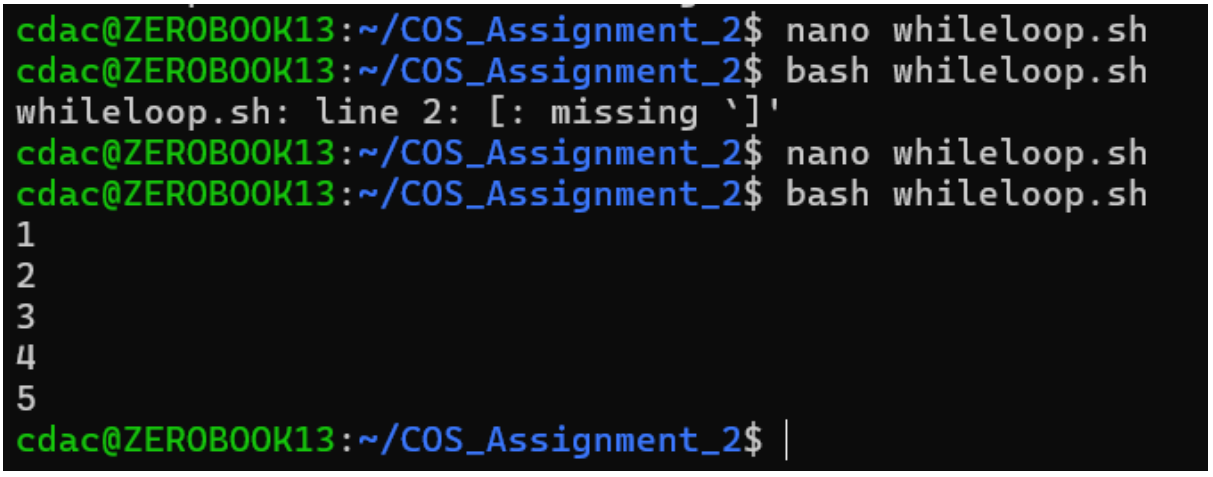
Question 5: Write a shell script that takes a number as input and prints "Even" if it is even, otherwise prints "Odd".



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



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



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@ZEROBOOK13:~/COS_Assignment_2$ nano check.sh
cdac@ZEROBOOK13:~/COS_Assignment_2$ bash check.sh
File exists
cdac@ZEROBOOK13:~/COS_Assignment_2$
```

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@ZEROBOOK13:~/COS_Assignment_2$ nano compare.sh
cdac@ZEROBOOK13:~/COS_Assignment_2$ bash compare.sh
Please enter number:
22
Number is greater than 10
cdac@ZEROBOOK13:~/COS_Assignment_2$ bash compare.sh
Please enter number:
7
Number is not greater than 10
cdac@ZEROBOOK13:~/COS_Assignment_2$
```

Question 10: Write a shell script that uses nested for loops to print a multiplication table for numbers from 1 to 5. The output should be formatted nicely, with each row representing a number and each column representing the multiplication result for that number.

```
cdac@ZEROBOOK13:~/COS_Assignment_2$ nano table.sh
cdac@ZEROBOOK13:~/COS_Assignment_2$ bash table.sh
        1       2       3       4       5
1       1       2       3       4       5
2       2       4       6       8       10
3       3       6       9       12      15
4       4       8       12      16      20
5       5       10      15      20      25
cdac@ZEROBOOK13:~/COS_Assignment_2$
```

Question 11: Write a shell script that uses a while loop to read numbers from the user until the user enters a negative number. For each positive number entered, print its square. Use the break statement to exit the loop when a negative number is entered.

```
cdac@ZEROBOOK13:~/COS_Assignment_2$ bash square.sh
Please enter numbers and enter negative number to exit
45
2025
4
16
4
16
6
36
7
49
5
25
8
64
8
64
9
81
3
9
2
4
8
64
-8
Negative number . Exit!!!!
cdac@ZEROBOOK13:~/COS_Assignment_2$
```