Assignment 2

NITU HIRALAL PATIL_JH

❖ **What will the following commands do?**

1. **echo "Hello, World!"**
   the command is used to print the text "Hello, World!"

2. **name="Productive"**
   The command is used to assign the value "Productive"

3. **touch file.txt**
   The command is used to create an empty file named file.txt

4. **ls -a**
   the command is used to list all files and directories in the current directory.

5. **rm file.txt**
   The command is used to remove the file named file.txt

6. **cp file1.txt file2.txt**
   The command is used to copy the contents of file1.txt to a new file named file2.txt.

7. **mv file.txt /path/to/directory/**
   the commend is used to move the file file.txt into the specified directory /path/to/directory/.

8. **chmod 755 script.sh**
   The command is used to change the permission of the file script.sh.

9. **grep "pattern" file.txt**
   search for a specific pattern in the file file.txt and return all lines that contain that pattern.

10. **kill PID**
    the commend is used to terminate a process with the specified PID (Process ID).

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

    mkdir mydir: This command creates a new directory named mydir.
    cd mydir: This command changes the current directory to mydir, the directory just created.
    touch file.txt: This command creates an empty file named file.txt inside the mydir directory.
    echo "Hello, World!" > file.txt: This command writes the string "Hello, World!" into the file file.txt. The > operator overwrites the file with this content.

12. **ls -l | grep ".txt"**

    is used to list all files in the current directory

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

    is used to combine the contents of two files, sort the output, and then remove any duplicate lines.

14. **ls -l | grep "^d"**

    is used to list directories (and only directories) in the current directory.

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

    is used to search recursively for a specific pattern inside all files within a given directory

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

    is used to combine the contents of two files, sort them, and then display only the duplicate lines that appear in both files.

17. **chmod 644 file.txt**

    is used to change the file permissions of file.txt to 644

18. **cp -r source_directory destination_directory**

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

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

is used to search for files with a .txt extension within a specified directory

20. chmod u+x file.txt

is used to add execute permissions for the user of a file.

21. echo $PATH

is used to display the current system's PATH environment variable.

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.**
   Incorrect
   The correct command to change file permissions is `chmod`, not `chmodx`.

2. **cpy is used to copy files and directories.**
   Incorrect
   The correct command to copy files and directories is **`cp`**, not `cpy`.

3 **mkfile is used to create a new file.**
   Incorrect
   The correct command to create an empty file is **`touch`**, not `mkfile`.

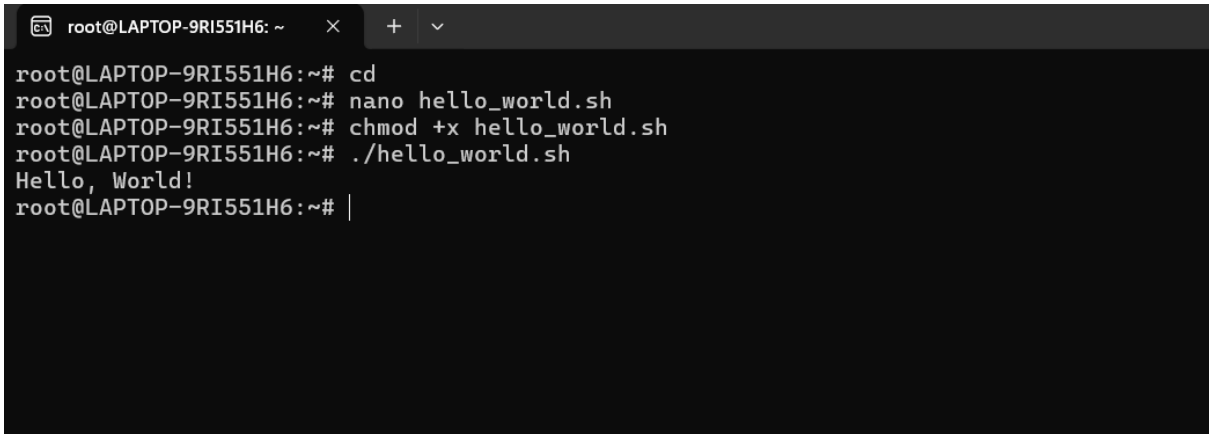
4 **catx is used to concatenate files.**
   Incorrect
   The correct command to concatenate files is **`cat`**, not `catx`.

5 **rn is used to rename files**.
   Incorrect
   The correct command to rename files is **`mv`**, not `rn`.

Part C

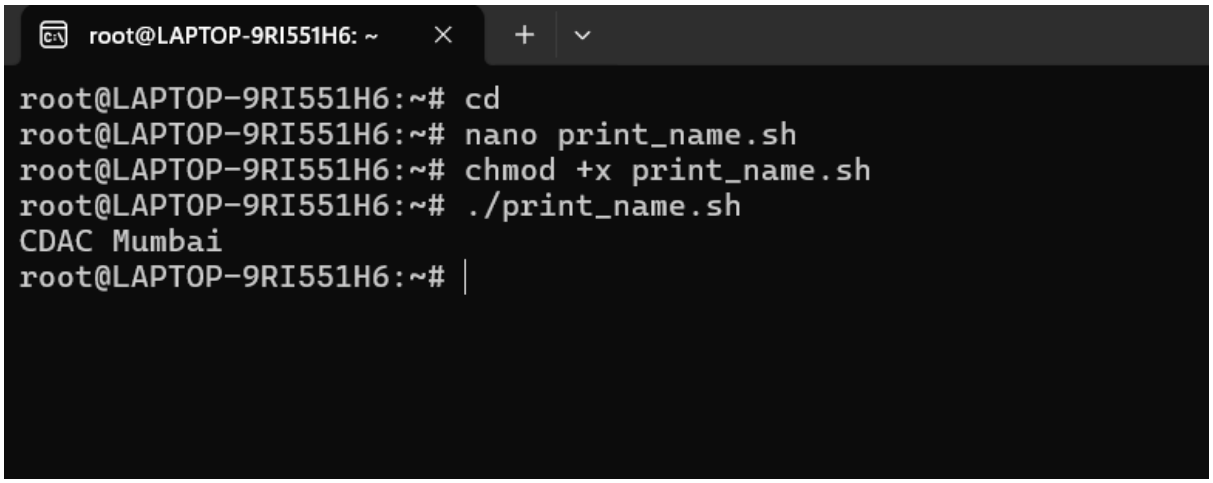
Question 1: Write a shell script that prints "Hello, World!" to the terminal.

Ans:



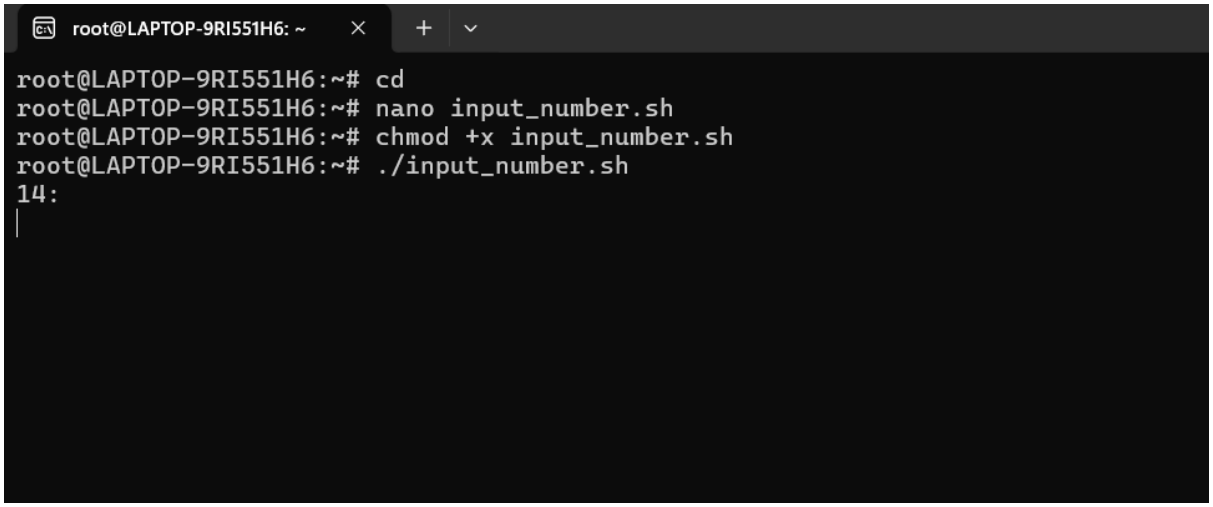
Question 2: Declare a variable named "name" and assign the value "CDAC Mumbai" to it. Print the value of the variable.

Ans:



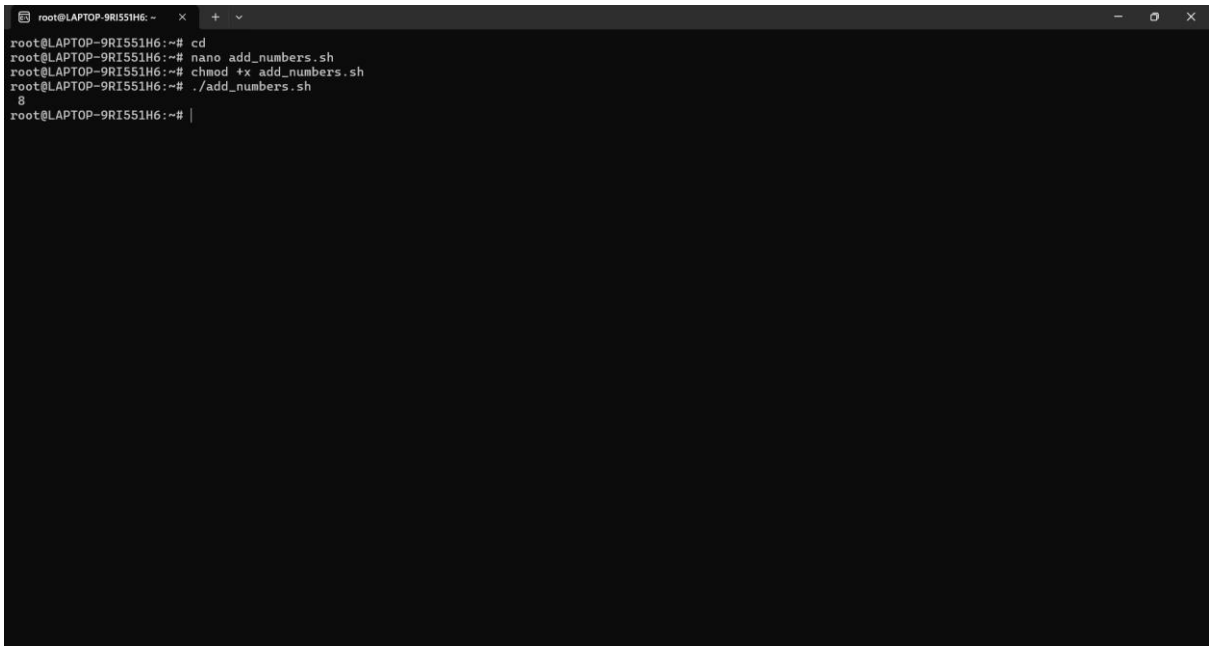
Question 3: Write a shell script that takes a number as input from the user and prints it.

Ans:



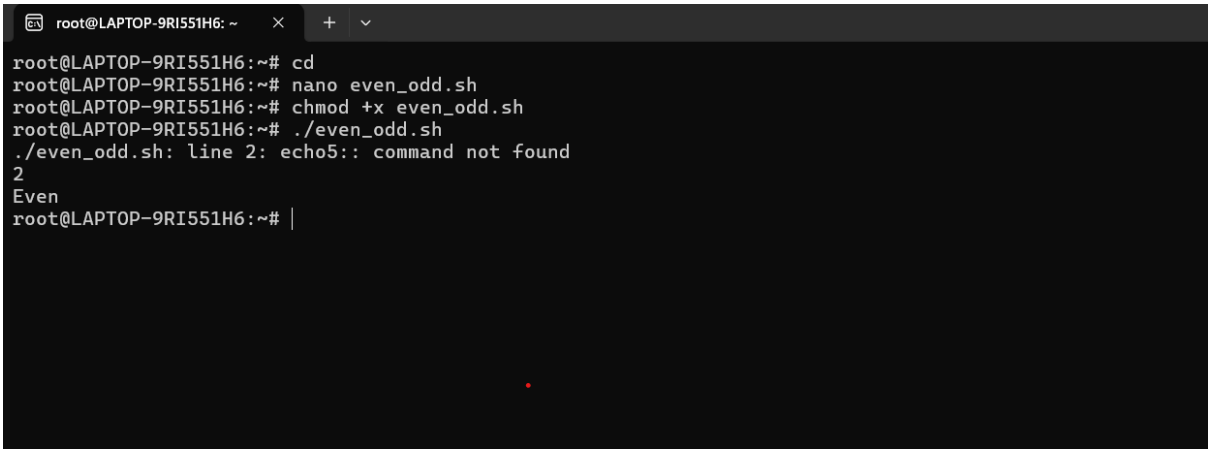
Question 4: Write a shell script that performs addition of two numbers (e.g., 5 and 3) and prints the result.

Ans:



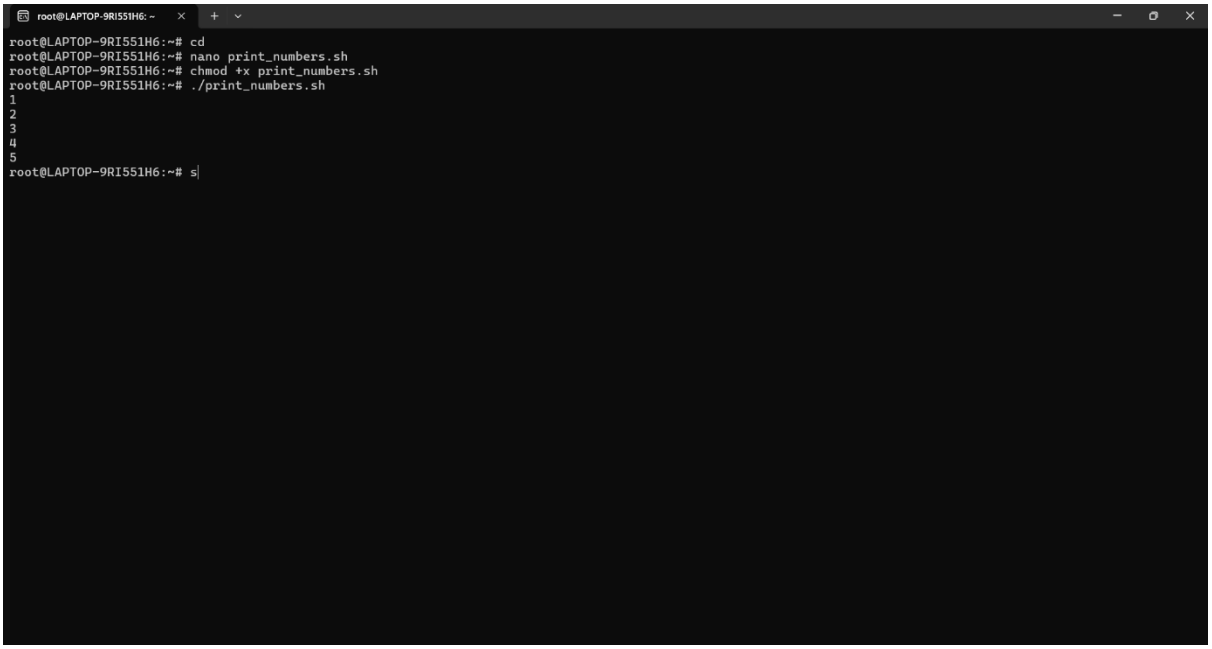
Question 5: Write a shell script that takes a number as input and prints "Even" if it is even, otherwise prints "Odd".

Ans:



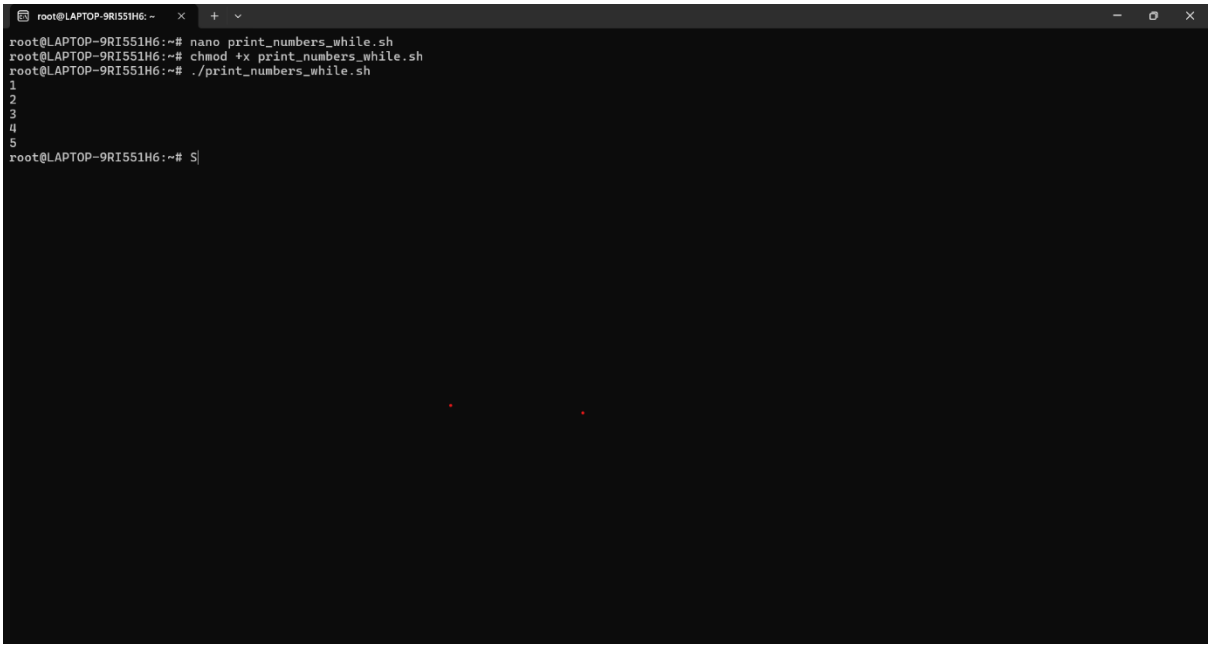
Question 6: Write a shell script that uses a for loop to print numbers from 1 to 5.

Ans:



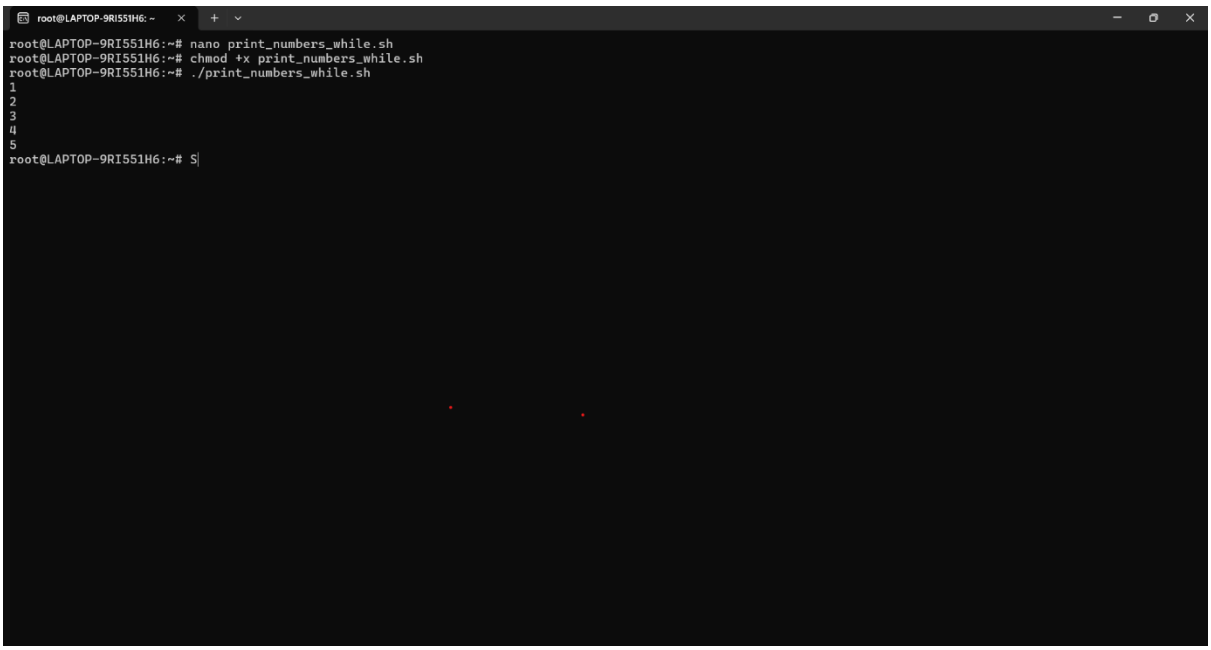
Question 7: Write a shell script that uses a while loop to print numbers from 1 to 5.

Ans:



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".

Ans:



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.

Ans: