**Concepts of Operating System**

***Assignment 2***

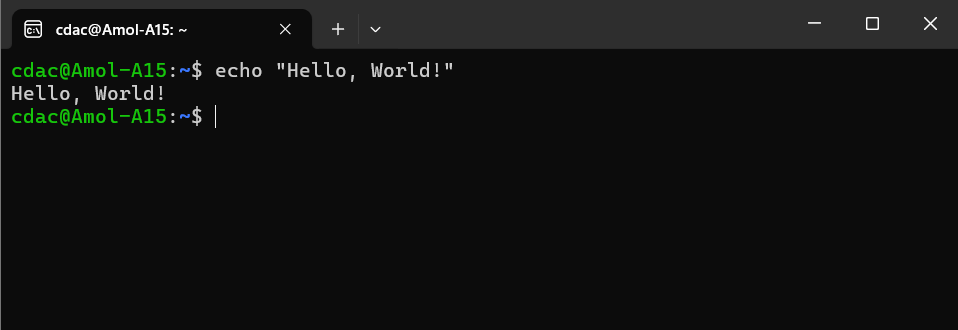
***Part A***

**What will the following commands do?**

1. echo "Hello, World!"

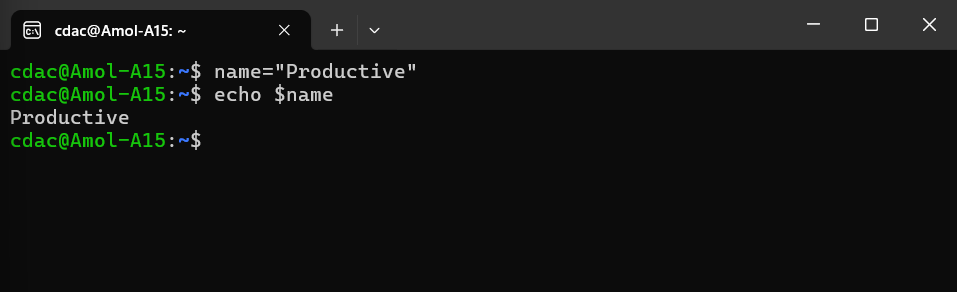
Display message on screen

Hello, World



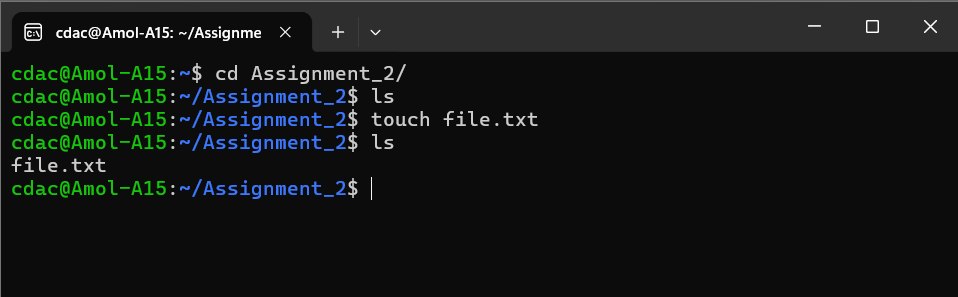
1. name="Productive"

Create a variable with the value as string {Productive}



1. touch file.txt

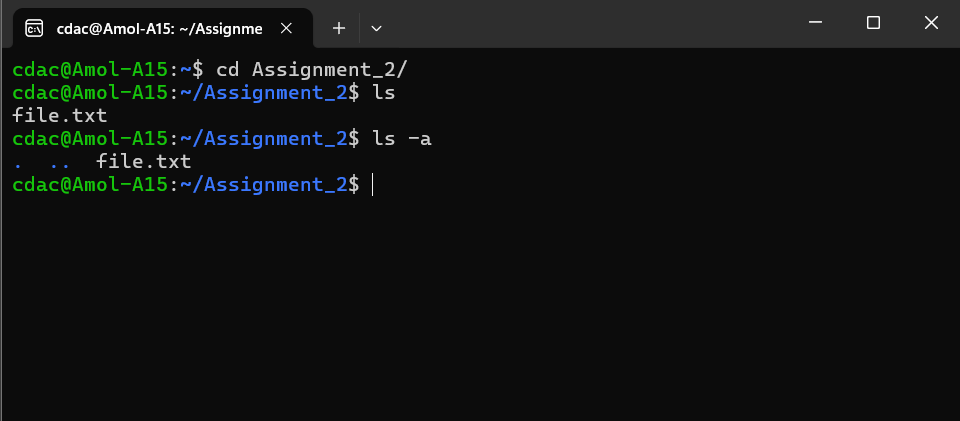
is use to create a new file



1. ls -a

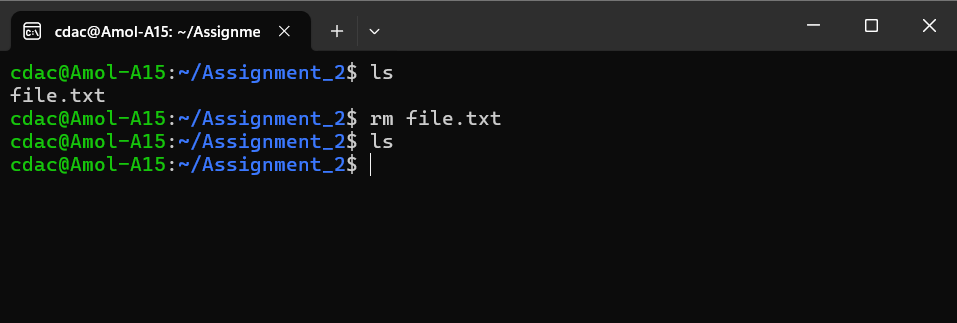
list directory contents

-a is use to not ignore entries starting with { . }



1. rm file.txt

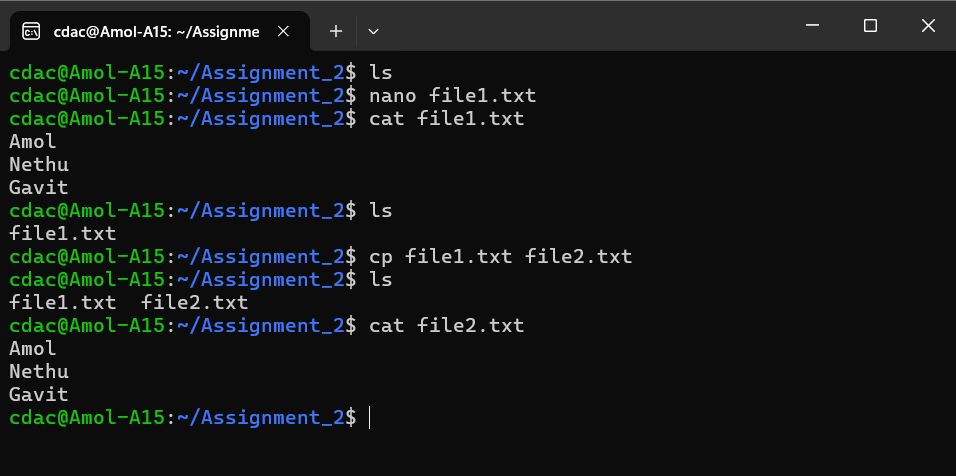
remove files or directories



1. cp file1.txt file2.txt

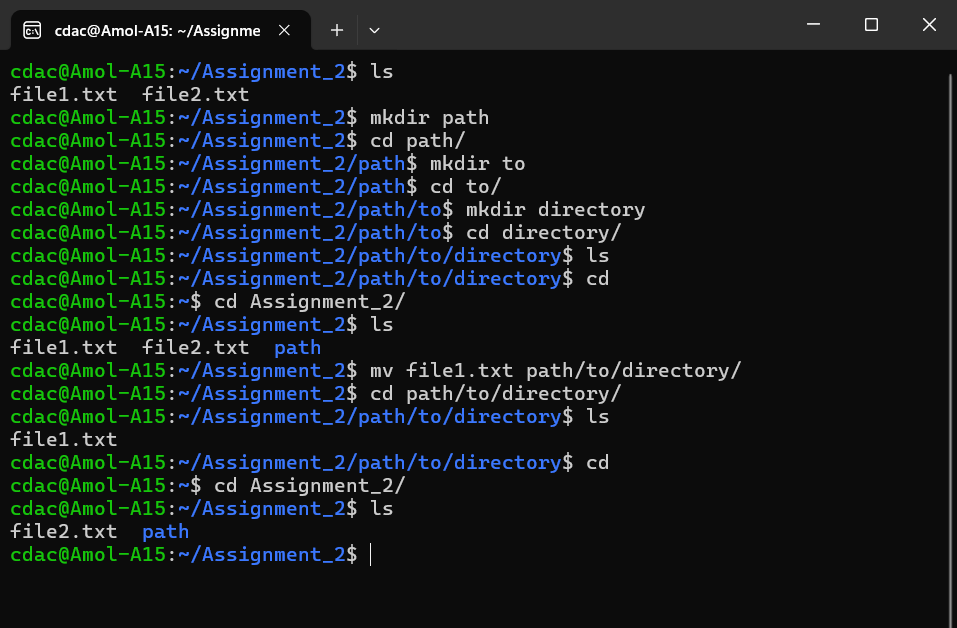
copy files and directories

used to copy the contains of file1.txt to file2.txt



1. mv file1.txt /path/to/directory/

move files

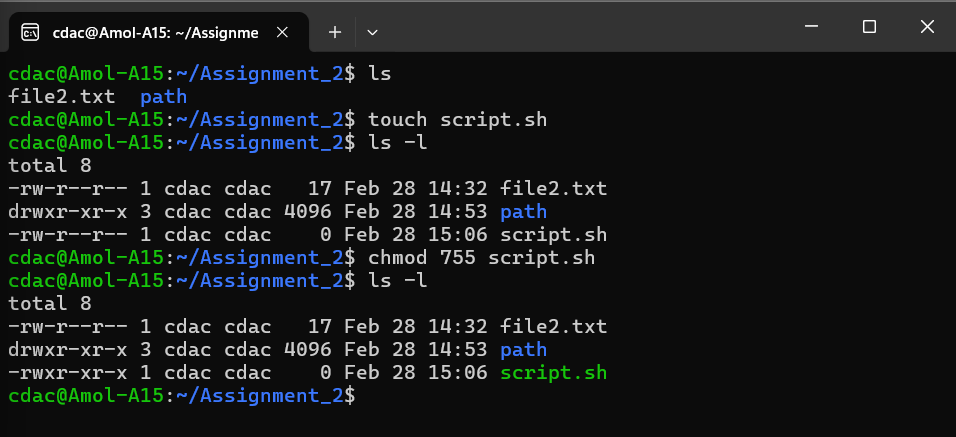


1. chmod 755 script.sh

change file permissions

Default file permissions are: u=rw, g=r, o=r { 644}

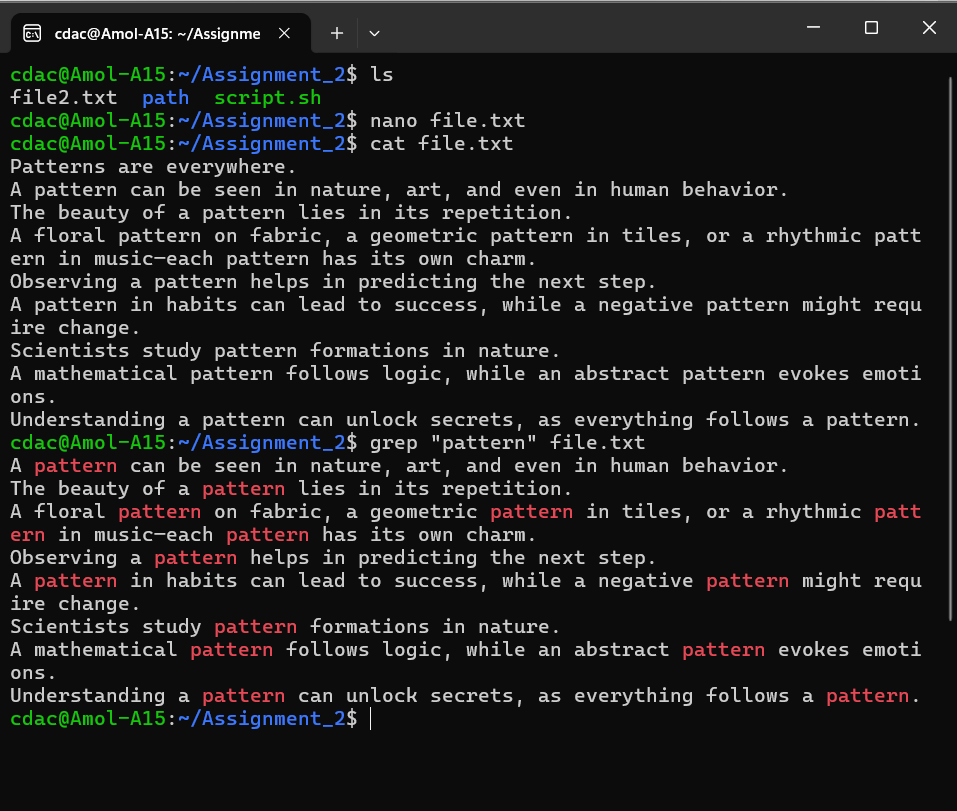
Change it to: { 755 } means u=rwx, g=rx, o=rx



1. grep "pattern" file.txt

print lines that match patterns

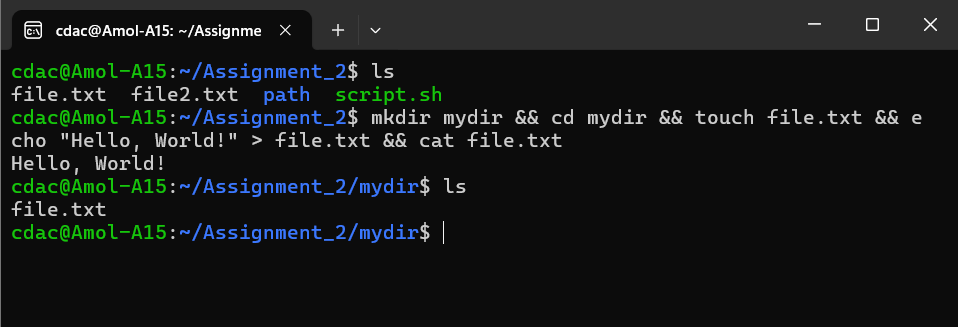
here we use “pattern” word to search in the { file.txt }



1. kill PID

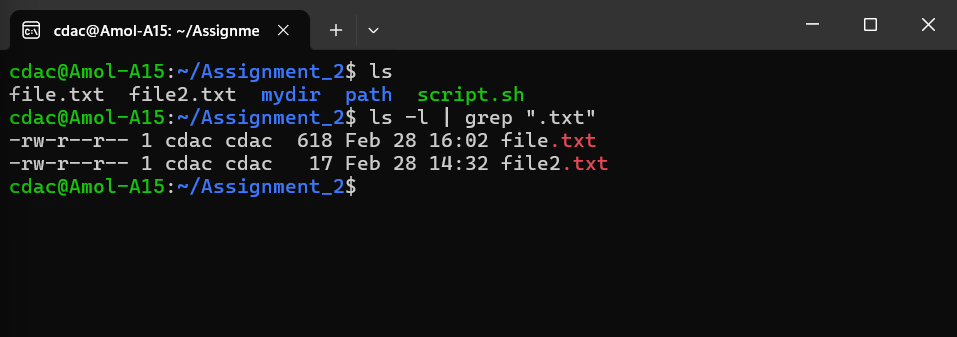
This option specifies the process ID of the process to be killed.

1. mkdir mydir && cd mydir && touch file.txt && echo "Hello, World!" > file.txt && cat file.txt
2. Crate the directory name mydir.
3. Change the directory to mydir.
4. Create the new file with name as “file.txt” in current directory.
5. Then append the output of echo “Hello, World!” in the file.txt.
6. Display the contains of the file.txt.

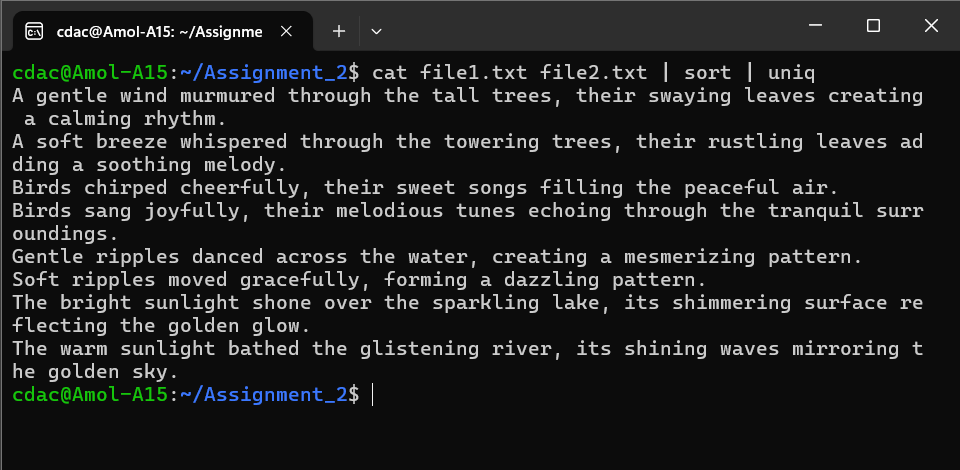


1. ls -l | grep ".txt"

{ | } this piping symbol is used to pass a program's output into another program's input.



1. cat file1.txt file2.txt | sort | uniq
2. Print the contains of the both file
3. Then the output (contain of both files) is sort all lines according to the alphabetical order.
4. Then exclude all repeated lines.

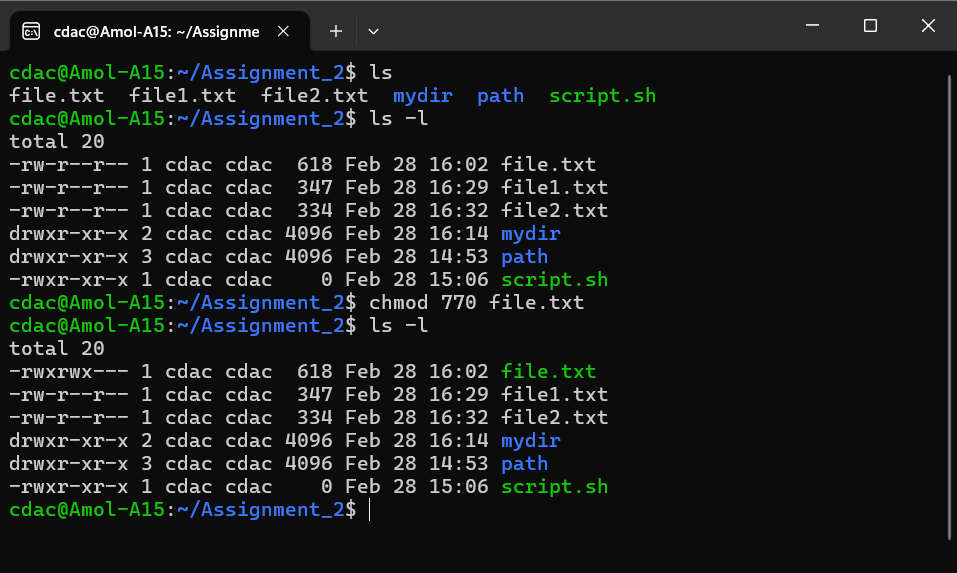


1. chmod 644 file.txt

change file permissions

Default file permissions are: u=rw, g=r, o=r { 644}

Change it to: { 770 } means u=rwx, g=rwx, o=---

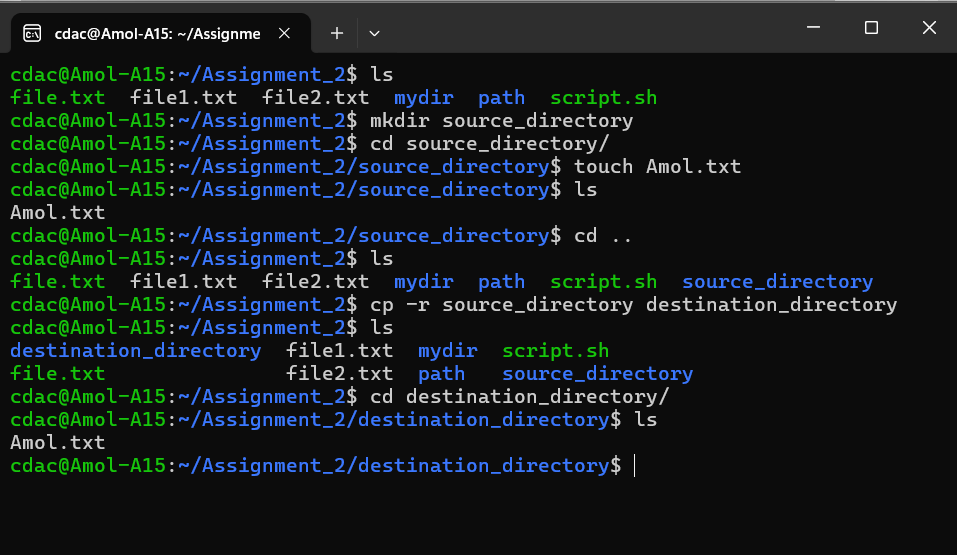


1. cp -r source\_directory destination\_directory

copy files and directories

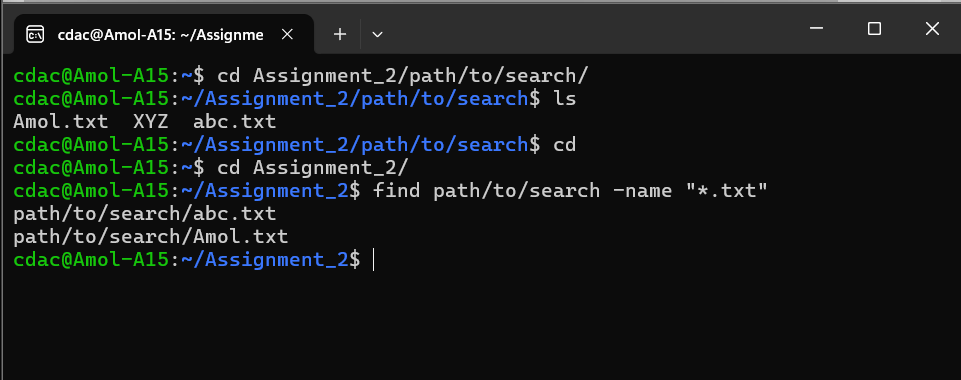
-r is use to copy directories recursively

Here recursively means all the contains of the source\_directory are copied to destination\_directory.



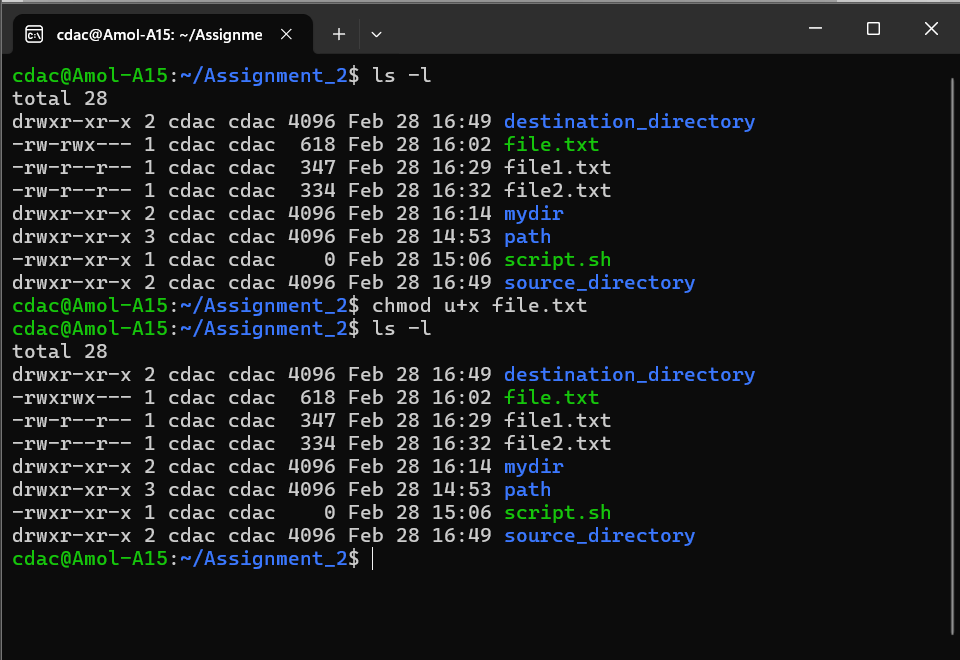
1. find /path/to/search -name "\*.txt"

use to find the { .txt } file name in the given directory path.

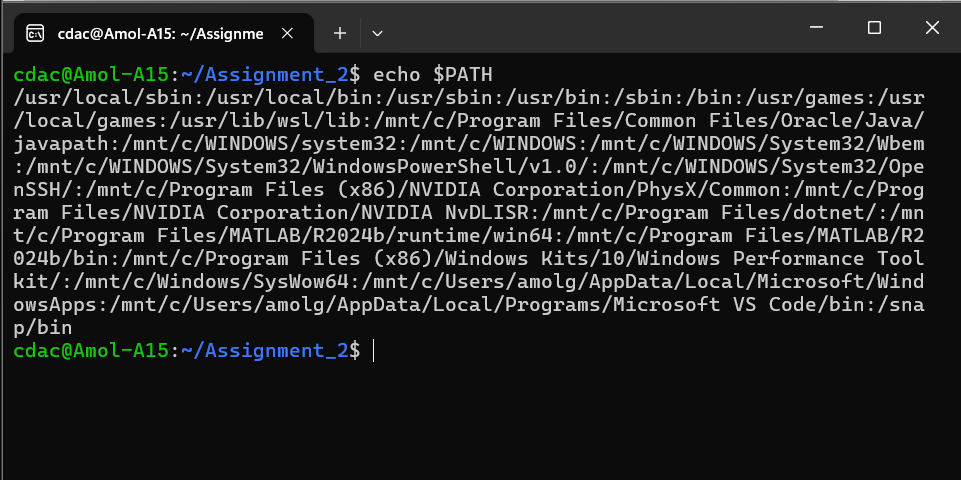


1. chmod u+x file.txt

Initially user didn’t have the permission to execute the file, but by using the{ u+x } we give permission to execute the file.txt to user.

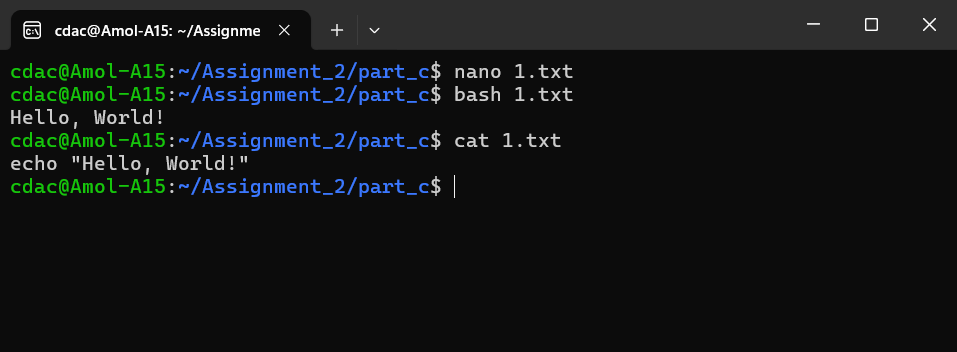


1. echo $PATH

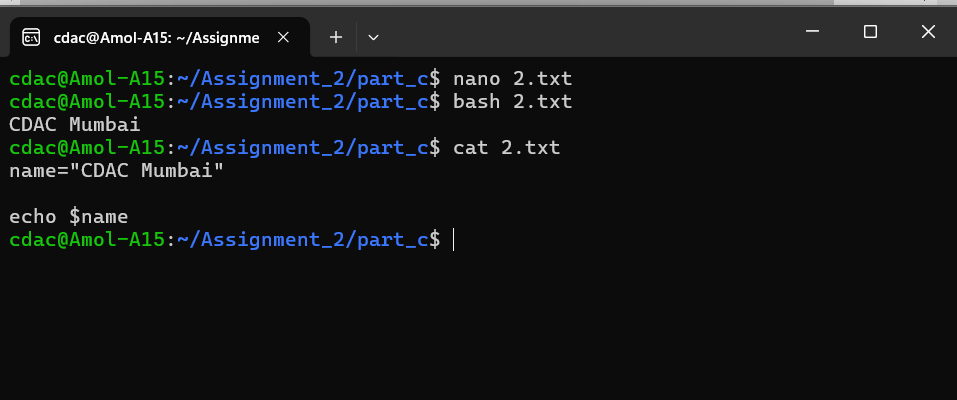


***Part C***

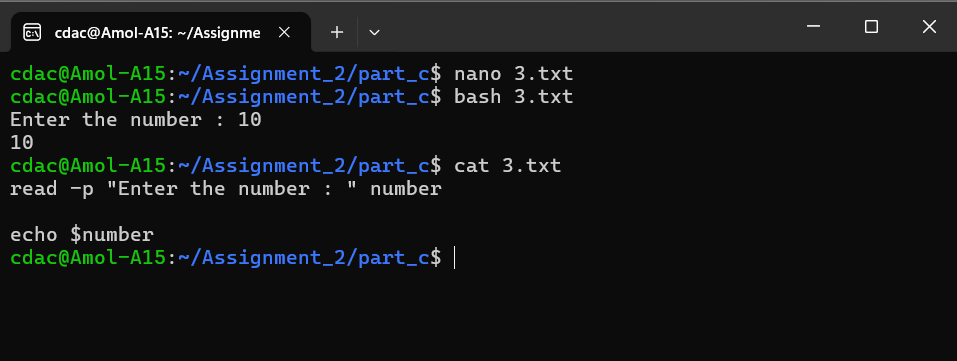
1. Write a shell script that prints "Hello, World!" to the terminal.



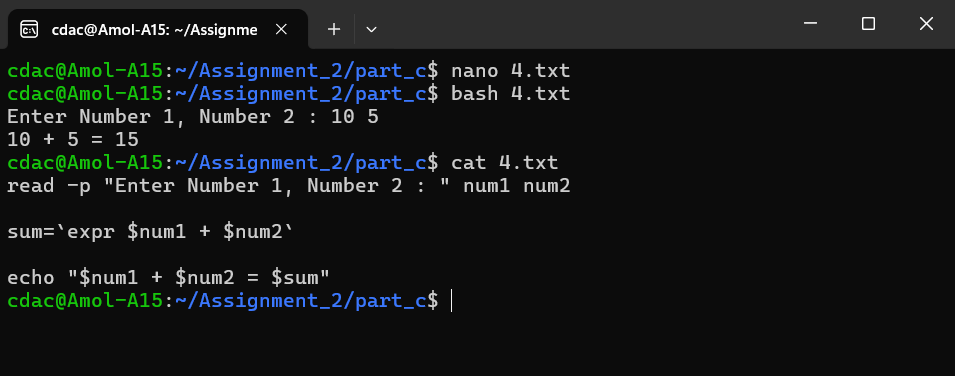
1. Declare a variable named "name" and assign the value "CDAC Mumbai" to it. Print the value of the variable.

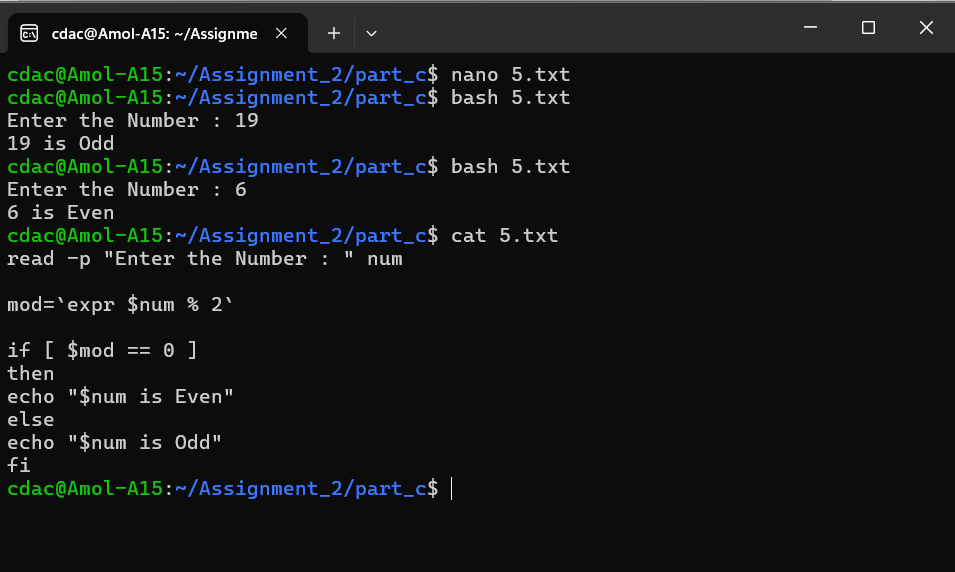


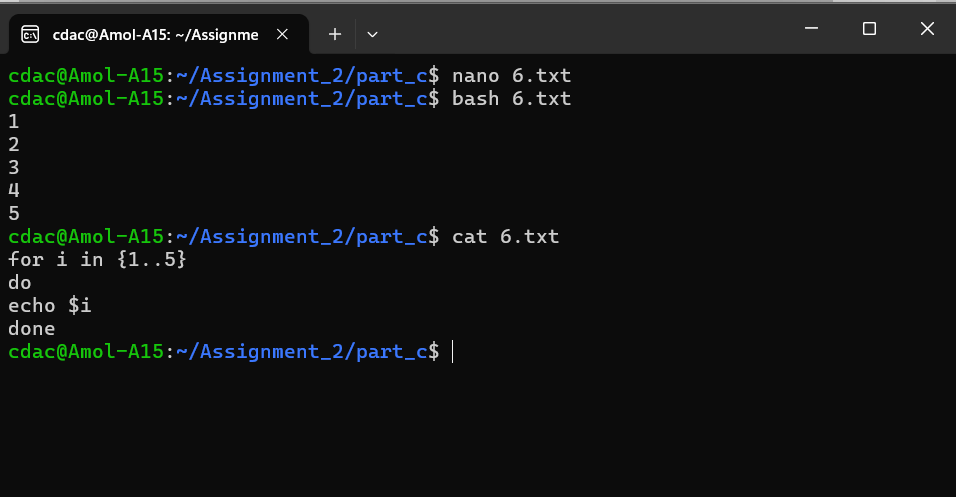
1. Write a shell script that takes a number as input from the user and prints it.



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



1. Write a shell script that takes a number as input and prints "Even" if it is even, otherwise prints "Odd".
2. Write a shell script that uses a for loop to print numbers from 1 to 5.



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

