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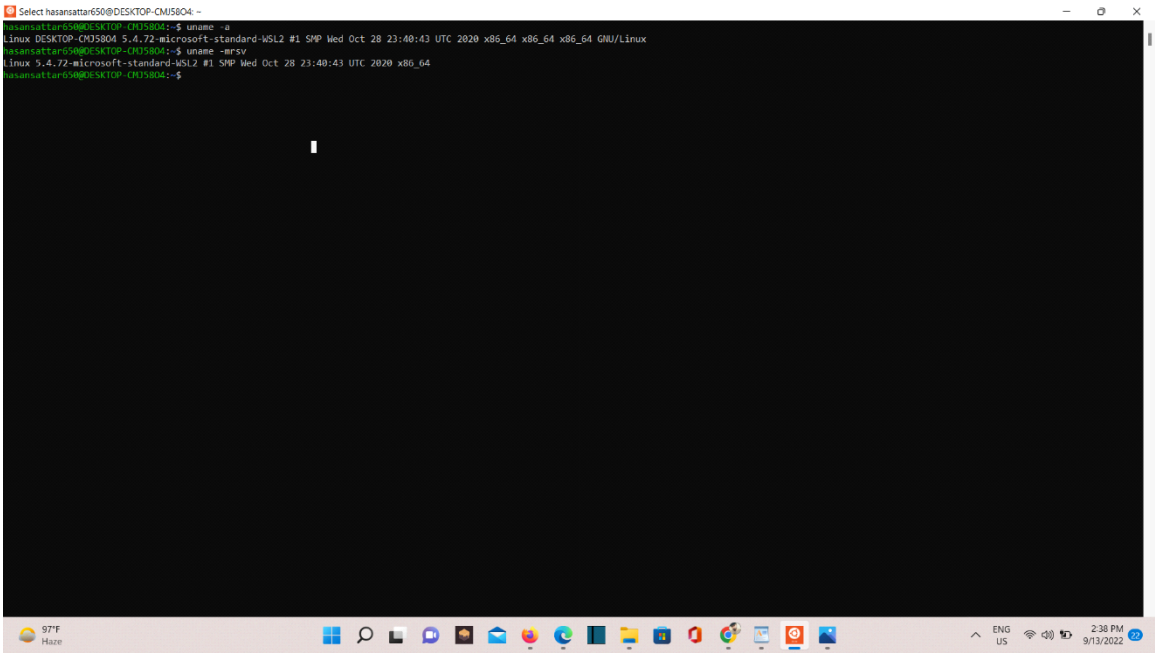
# OPERATING SYSTEM

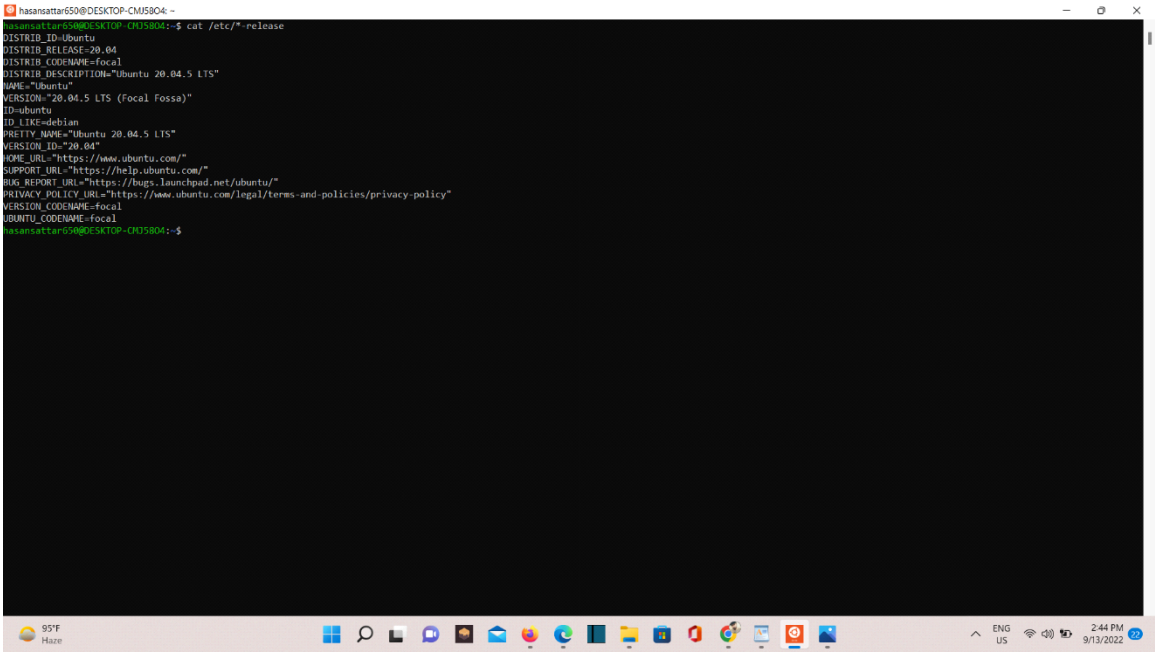
## Q-1 (a)

***Find out the Linux kernel version of your system using the command on the terminal. You are required to paste the screenshot in the answer?***



## *Q*-1 (b)

***Find out the distribution name and version of your operating system using the command on the terminal. You are required to paste the screenshot in the answer ?***



## *Q-2*

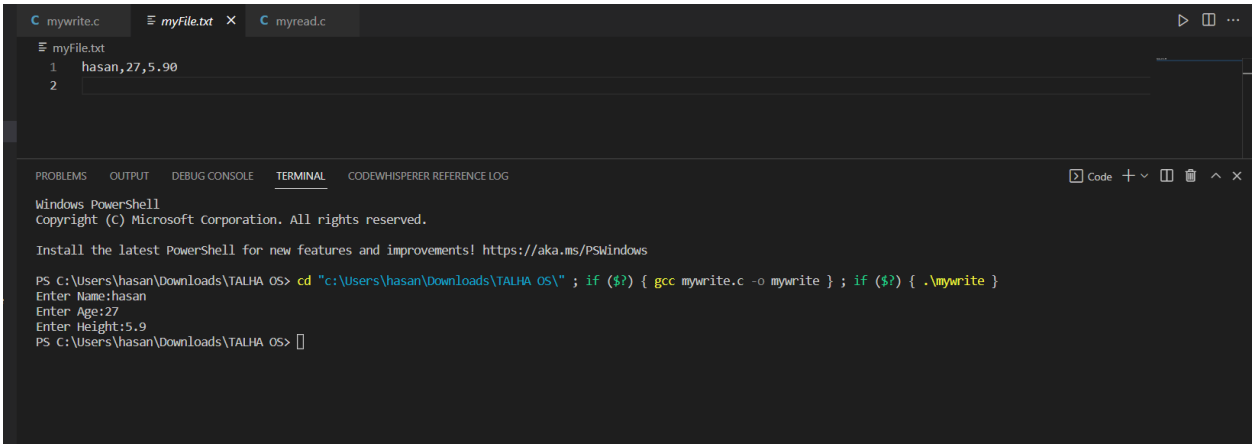
***For this question you are required to use standard c library to perform I/O operations.***

***(a)***

***Write a C program (named: mywrite.c) which will open a new text file (myFile.txt) in the write mode. Using the c standard library API, your program should take the following information from the user in the terminal window: Name, Age (type integer), Height (in Feet, type float). Next, it should write the above information to the myFile.txt ?***

```
#include <stdio.h>
void main()
{
	char Name[50];
	int Age;
	float Height;

	FILE* FileHandler = fopen( "myFile.txt", "w" );
	if (FileHandler == NULL)
	{	printf("Not Found .\n");
		return;
	}
```

```
        printf("Enter Name:");
        scanf("%s", &Name);

        printf("Enter Age:");
        scanf("%d", &Age);

        printf("Enter Height:");
        scanf("%f", &Height);

        fprintf(FileHandler,"%s,%d,%.2f\n", Name, Age, Height);
        fclose(FileHandler) ;
}
```

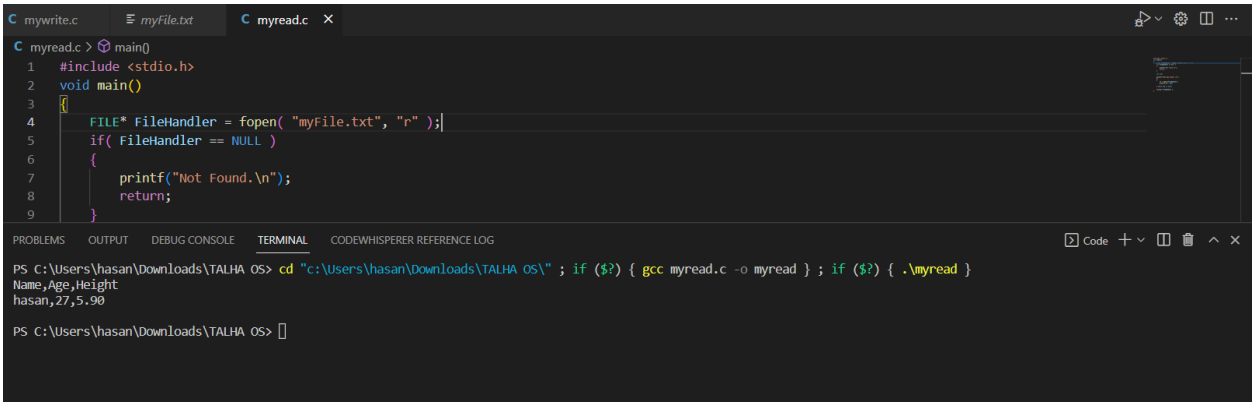


***(b)***

***Write another C program (myread.c) which will open an already existing file (myFile.txt obtained from the above program) in read mode. Using the c standard library API, your program will read the information in the myFile.txt and print it to the terminal window ?***

```
#include <stdio.h>
void main()
{
FILE* FileHandler = fopen( "myFile.txt", "r" );
if( FileHandler == NULL )
{
 printf("Not Found.\n");
        return;
}

   char ch;

   printf("Name,Age,Height \n");
   do
   {
      ch = fgetc(FileHandler);
      printf("%c", ch);
```

```
    } while (ch != EOF);


        fclose( FileHandler );
}
```




## *Q*-3

## *What does POSIX stand for? Write a short (up to 10 lines) description on POSIX?*

**POSIX** stand for Portable Operating System Interface. It is a portable operating system based on the UNIX operating system. This standard specified by IEEE computer society. It describes both user-level and system level application programming interfaces along with a CMD (command line interface). ***POSIX*** is used to make application portability easier. POSIX is considering a subset of UNIX and is used to cover different Unix-like environments for many other operating systems. POSIX at the beginning hold different environments, such as Eunice for Virtual Machines, POSIX Personality, and NT from Windows OS. ***POSIX*** is portable between different

variants of UNIX. In general terms, we can call POSIX as an operating system of UNIX.

## *Q*-4

## *Various Operating systems use various structures such as Monolithic, Layered or Microkernel. Give at least five examples of operating systems for each of the structure.?*

*Various Operating systems use various structures such as Monolithic, Layered or Microkernel.*

*Monolithic Kernel:*

*1) Linux*

*2) Microsoft Windows (95, 98)*

*3) Solaries*

*4) HP-UX*

*5) DOS*

*Layered or microkernel:*

*1) Symbian*

*2) Mac OS X*

*3) PikeOS*

*4) Minix and Coyotos.*

*5) L4Linux*