

2. Write a program to find the factorial of a number using recursion.

Code with Output:

The screenshot shows a terminal window with two tabs: "ree.c" and "Ubuntu". The "ree.c" tab contains the C code for calculating factorial using recursion. The "Ubuntu" tab shows the terminal session where the code is compiled with gcc and run, displaying the factorial of 5 as 120.

```
C array.c      C ree.c      X  C fib.c
C: > Users > Sai Charan > OneDrive > Desktop > p > C ree.c
1 #include <stdio.h>
2
3 int factorial(int n) {
4     if(n == 0)
5         return 1;
6     else
7         return n * factorial(n - 1);
8 }
9
10 int main() {
11     int num;
12
13     printf("Enter a number: \n");
14     scanf("%d", &num);
15
16     printf("Factorial of %d = %d \n", num, factorial(num));
17
18     return 0;
19 }
```

```
ai_haran@SCJ:/mnt/c/Users/Sai Charan/OneDrive/Desktop/p$ gcc ree.c -o run2
ai_haran@SCJ:/mnt/c/Users/Sai Charan/OneDrive/Desktop/p$ ./run2
Enter a number:
5
Factorial of 5 = 120
ai_haran@SCJ:/mnt/c/Users/Sai Charan/OneDrive/Desktop/p$
```