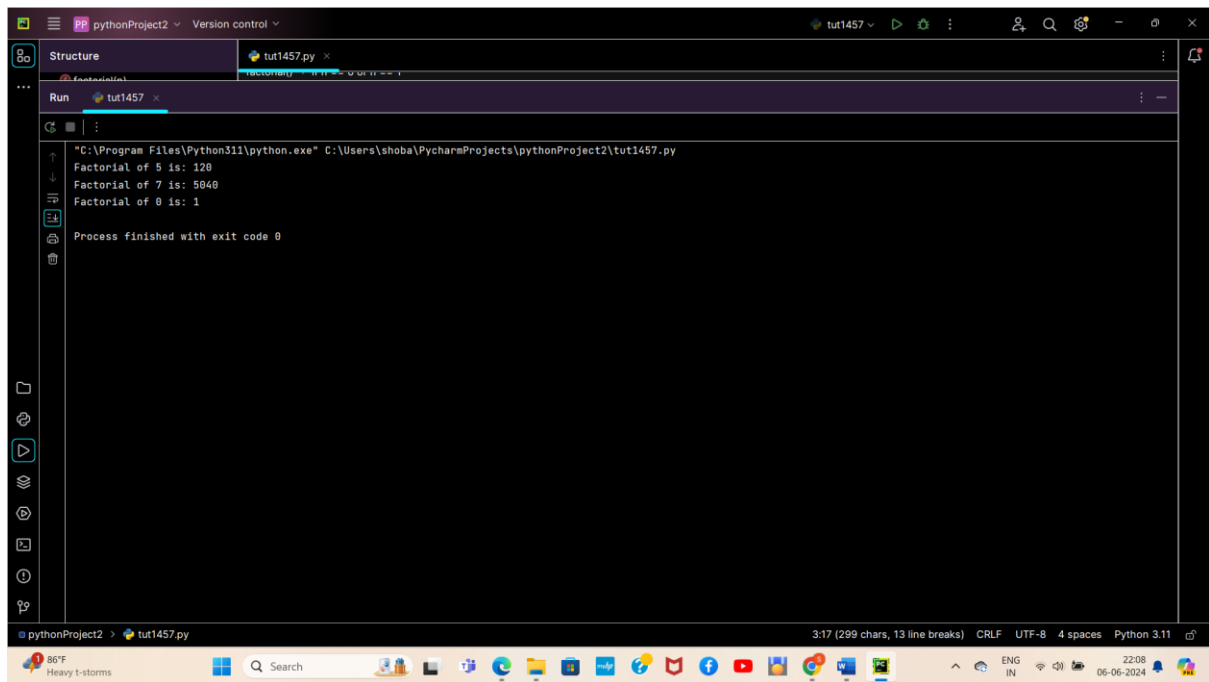# CSA0670-Design and Analysis of Algorithms for Tractability Problems.

5. Write a program to find the Factorial of a number using recursion.

Program:

```python
def factorial(n):
    if n == 0 or n == 1:
        return 1
    return n * factorial(n - 1)

num = 5
print("Factorial of {} is: {}".format(num, factorial(num)))

num = 7
print("Factorial of {} is: {}".format(num, factorial(num)))

num = 0
print("Factorial of {} is: {}".format(num, factorial(num)))
```

Output:

```
"C:\Program Files\Python311\python.exe" C:\Users\shoba\PycharmProjects\pythonProject2\tut1457.py
Factorial of 5 is: 120
Factorial of 7 is: 5040
Factorial of 0 is: 1

Process finished with exit code 0
```

Time Complexity: O(n)