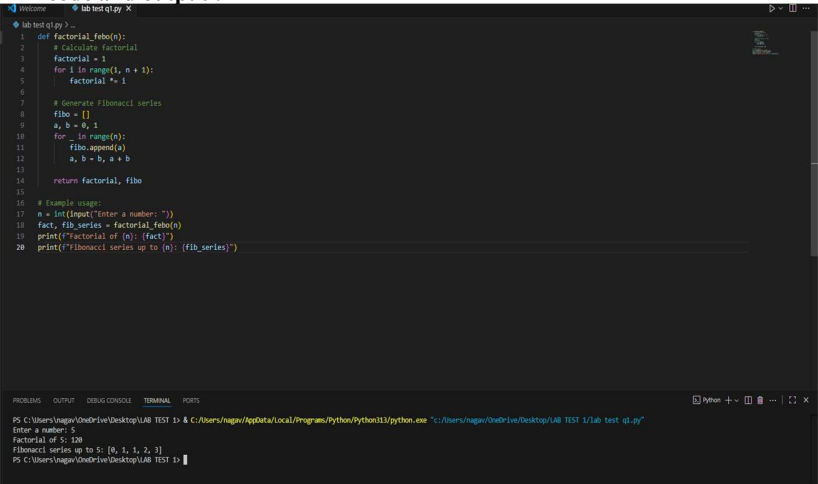



SCHOOL OF COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE		DEPARTMENT OF COMPUTER SCIENCE ENGINEERING	
ProgramName: B. Tech		SET-B	AcademicYear:2025-2026
Roll No.			
Instructor(s)Name		1. Dr. Venkataramana 2. Dr. Ch. Sridhar 3. Mr. Kundan Kumar	
CourseCode	24CS002PC215	CourseTitle	AI Assisted Coding
Year/Sem	II/I	Regulation	R24
Date and Day of Assignment	22.08.2025	Time(s)	01.00PM To 03.00PM
Duration	2 Hours	Applicable to Batches	24BTCAIAIB09, 24BTCAIAIB10
Lab Test :1(Present test number)/4(Total number of tests)			
Q.No.	Question	ExpectedTime to complete	
1	<p>Task Description#1</p> <ul style="list-style-type: none"> Write python program for a function factorial_febo(n) that return both factorial of given number and Fibonacci series as per input “n” <p>Expected Output#1</p> <ul style="list-style-type: none"> factorial_febo(n) and output prompt :write a python function named factorial_feb(n) that returns both the factorial of n and the first n numbers of the Fibonacci series." code and output :  <pre> 1 def factorial_febo(n): 2 # calculate factorial 3 factorial = 1 4 for i in range(1, n + 1): 5 factorial *= i 6 7 # Generate Fibonacci series 8 fibo = [] 9 a, b = 0, 1 10 for _ in range(n): 11 fibo.append(a) 12 a, b = b, a + b 13 14 return factorial, fibo 15 16 # Example usage: 17 n = int(input("Enter a number: ")) 18 fact, fib_series = factorial_febo(n) 19 print(f"Factorial of {n}: {fact}") 20 print(f"Fibonacci series up to {n}: {fib_series}") </pre> <p>PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS</p> <pre> PS C:\Users\ngan\OneDrive\Desktop\LAB TEST 1> & C:\Users\ngan\AppData\Local\Programs\Python\Python131\python.exe "C:\Users\ngan\OneDrive\Desktop\LAB TEST 1\Lab test q1.py" Enter a number: 5 Factorial of 5: 120 Fibonacci series up to 5: [0, 1, 1, 2, 3] PS C:\Users\ngan\OneDrive\Desktop\LAB TEST 1> </pre> <p>Task Description#2</p> <ul style="list-style-type: none"> Write Python program in cursor AI for student class with attributes like Name, Roll 	22.08.2025 03.00PM	

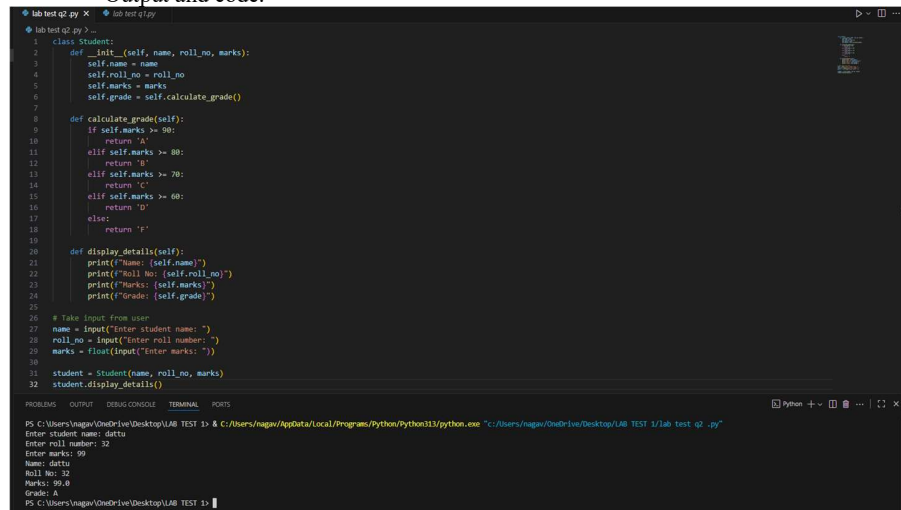
no, Marks and also construct a method i.e., **display_details** to display name, rollno, marks and grades

 **Table: Grades Classification Based on Marks**

Marks Range (%)	Grade
90 – 100	A+
75 – 89	A
60 – 74	B
50 – 59	C
Below 50	F (Fail)

Expected Output#2

- Student Class and Display Details
- Prompt : Create a `student` class in Python that stores a student's name, roll number, and marks. Also, define a method to display all these details and compute the grade
- Output and code:



```

1 class Student:
2     def __init__(self, name, roll_no, marks):
3         self.name = name
4         self.roll_no = roll_no
5         self.marks = marks
6         self.grade = self.calculate_grade()
7
8     def calculate_grade(self):
9         if self.marks >= 90:
10             return 'A+'
11         elif self.marks >= 80:
12             return 'A'
13         elif self.marks >= 70:
14             return 'B'
15         elif self.marks >= 60:
16             return 'C'
17         elif self.marks >= 50:
18             return 'D'
19         else:
20             return 'F'
21
22     def display_details(self):
23         print("Name: {self.name}")
24         print("Roll No: {self.roll_no}")
25         print("Marks: {self.marks}")
26         print("Grade: {self.grade}")
27
28 # Take input from user
29 name = input("Enter student name: ")
30 roll_no = input("Enter roll number: ")
31 marks = float(input("Enter marks: "))
32
33 student = Student(name, roll_no, marks)
34 student.display_details()
  
```

PS C:\Users\ragan\OneDrive\Desktop\LAB TEST 1> & C:\Users\ragan\AppData\Local\Programs\Python\Python311\python.exe "C:\Users\ragan\OneDrive\Desktop\LAB TEST 1\lab test q2 .py"

Enter student name: dattu
Enter roll number: 32
Enter marks: 99
Name: dattu
Roll No: 32
Marks: 99.0
Grade: A

Note: Report should be submitted a word document for all tasks in a single document with prompts, comments & code explanation, and output screenshots

Evaluation Criteria:

Criteria	Max Marks
Factorial Function (Task#1)	5
Sorting Function (Task#2)	5
Viva	5
Total	15 Marks