6.1.2 factorial of a number

A] Algorithm

Step 1: Start
Step 2: Input number n
Step 3: Set fact = 1
Step 4: Repeat the following steps for i from 1 to n

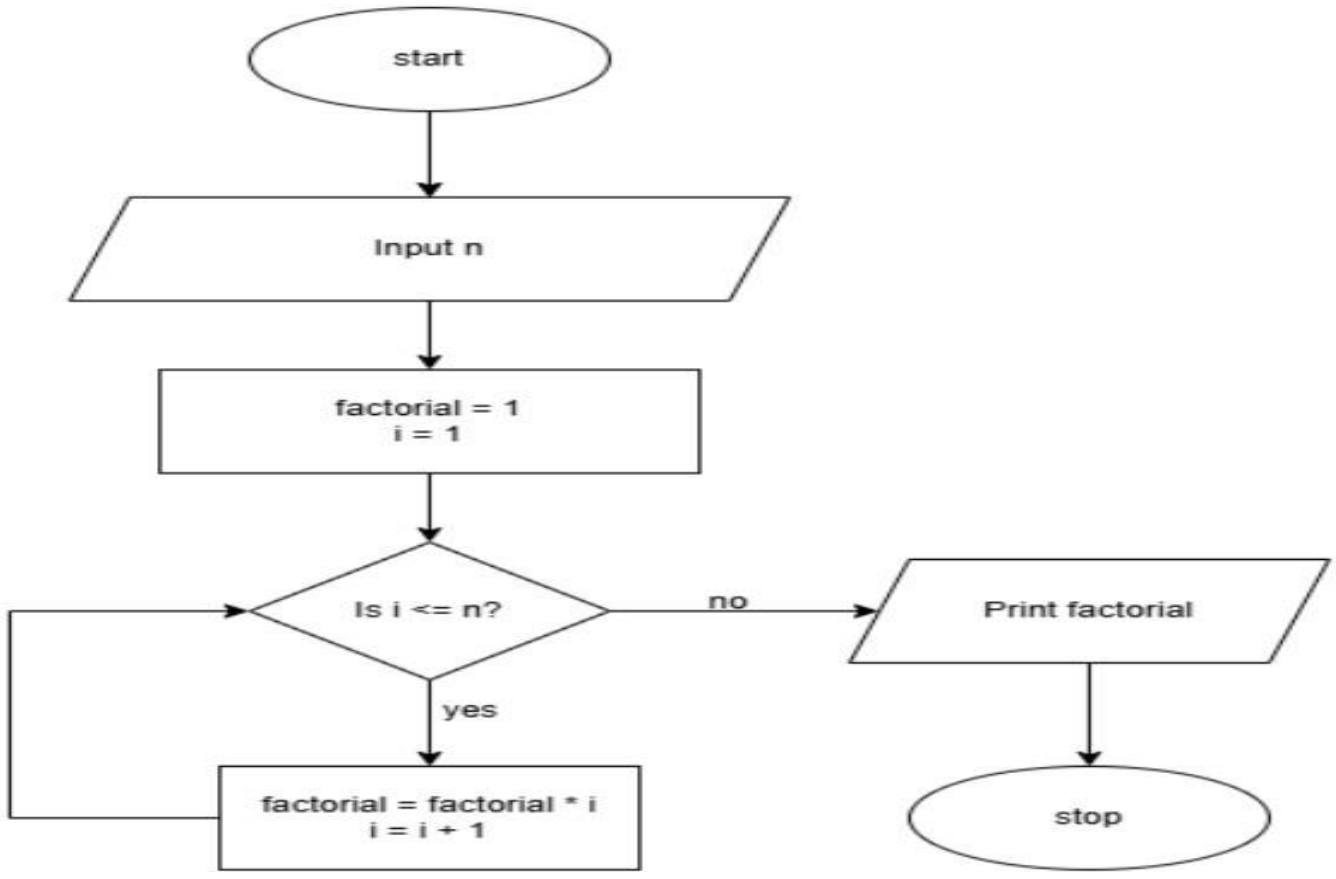
- Multiply fact = fact × i

Step 5: Print fact
Step 6: Stop

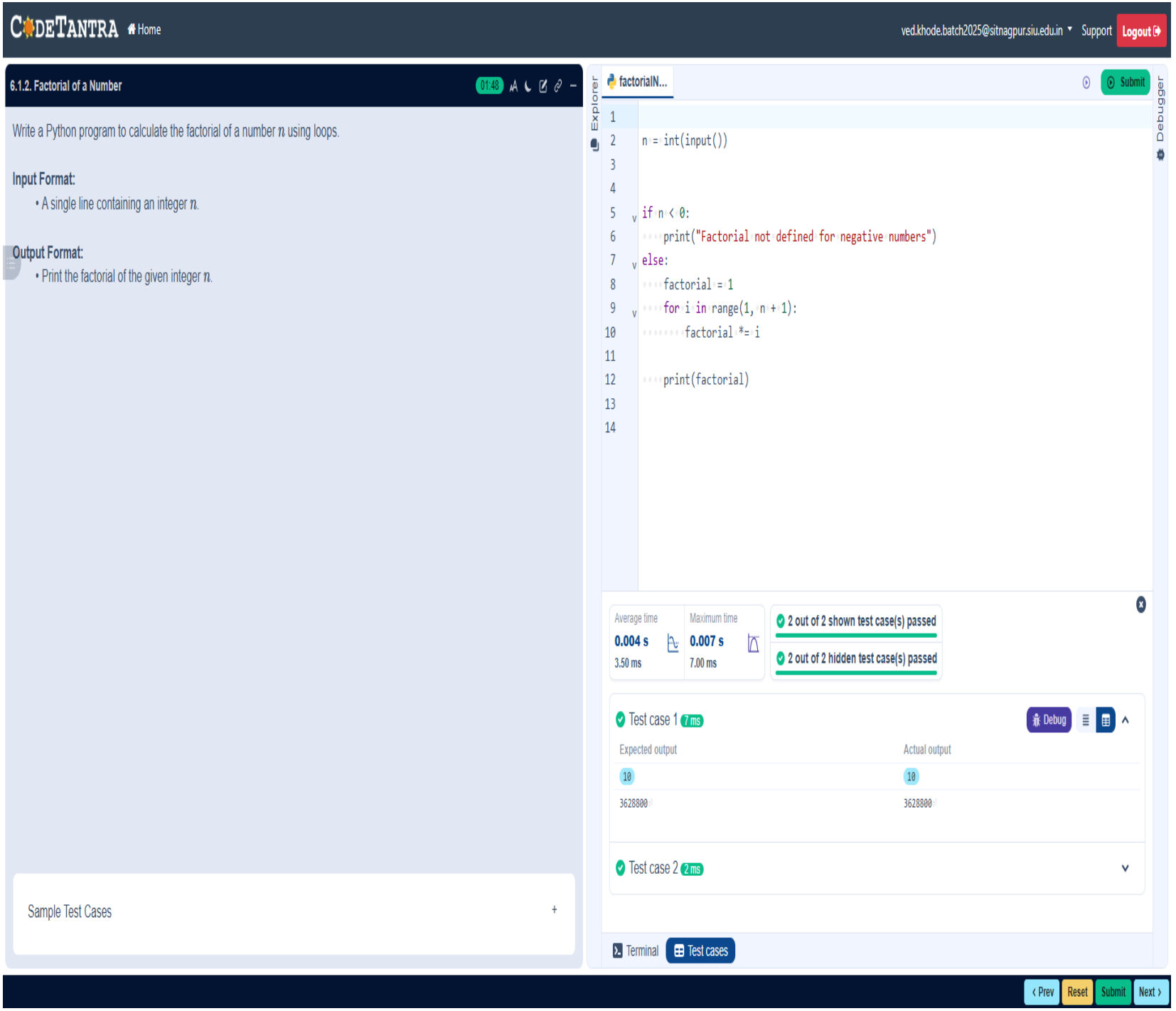
B] code

```
n = int(input())
fact = 1
for i in range(1, n + 1):
    fact = fact * i
print(fact)
```

C] flowchart



D] Output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6.1.2. Factorial of a Number
01:48
Write a Python program to calculate the factorial of a number n using loops.
Input Format:
• A single line containing an integer n.
Output Format:
• Print the factorial of the given integer n.
Sample Test Cases
factorialN...
Submit
Explorer
Debugger
1 n = int(input())
2
3 if n < 0:
4 print("Factorial not defined for negative numbers")
5 else:
6 factorial = 1
7 for i in range(1, n + 1):
8 factorial *= i
9
10 print(factorial)
11
12
13
14
Average time
0.004 s
3.50 ms
Maximum time
0.007 s
7.00 ms
2 out of 2 shown test case(s) passed
2 out of 2 hidden test case(s) passed
Test case 1 7 ms
Debug
Expected output
Actual output
10
10
3628800
3628800
Test case 2 2 ms
Terminal
Test cases
‹ Prev
Reset
Submit
Next ›