**NAME : Chandramohan k**

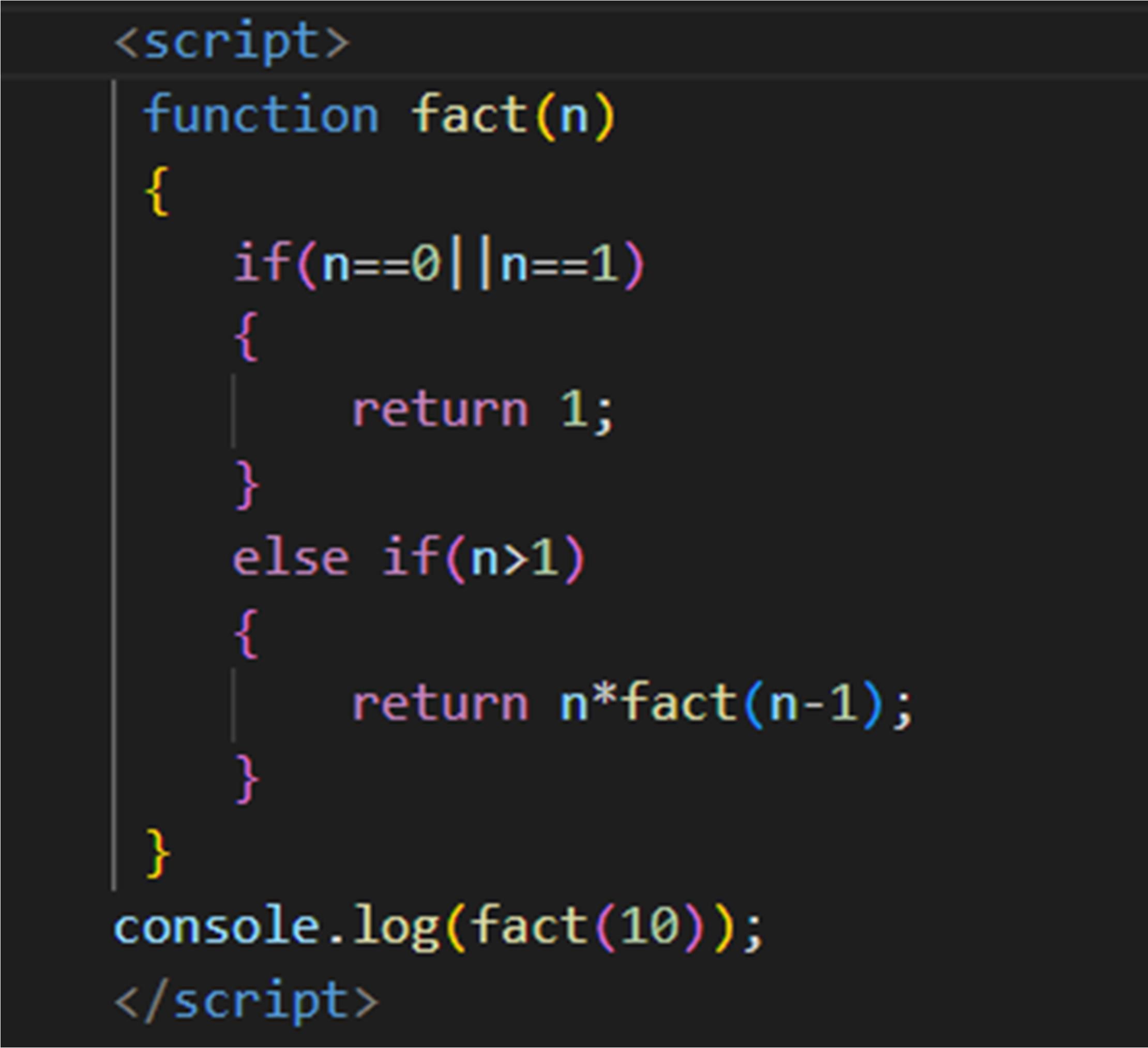
**ROLL NO :**

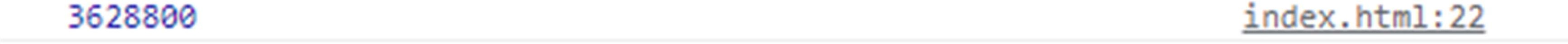
**717821P112**

**DATE : 27/2/2023**

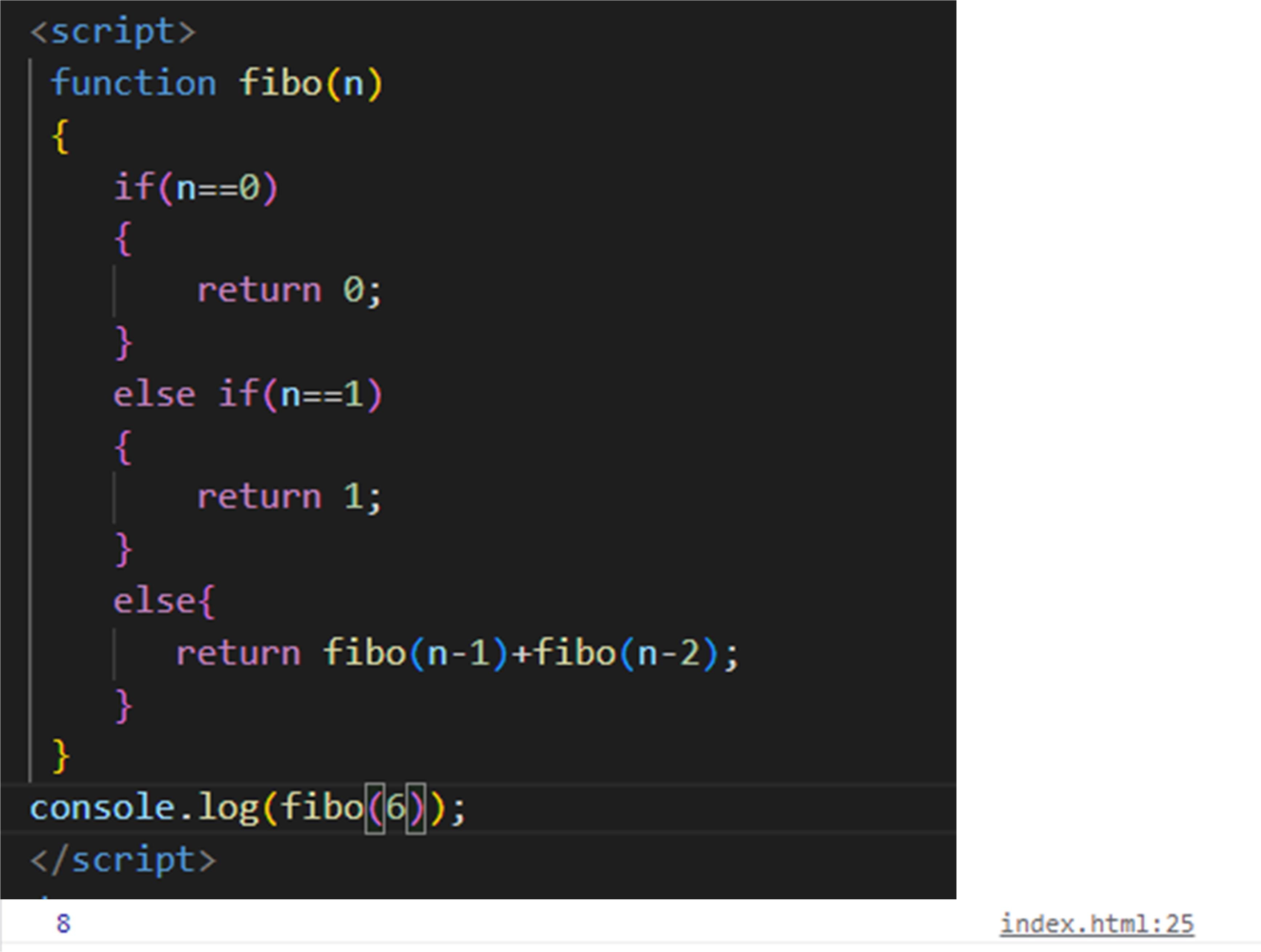
**1. Recursion and stack:**

**Week 3:**

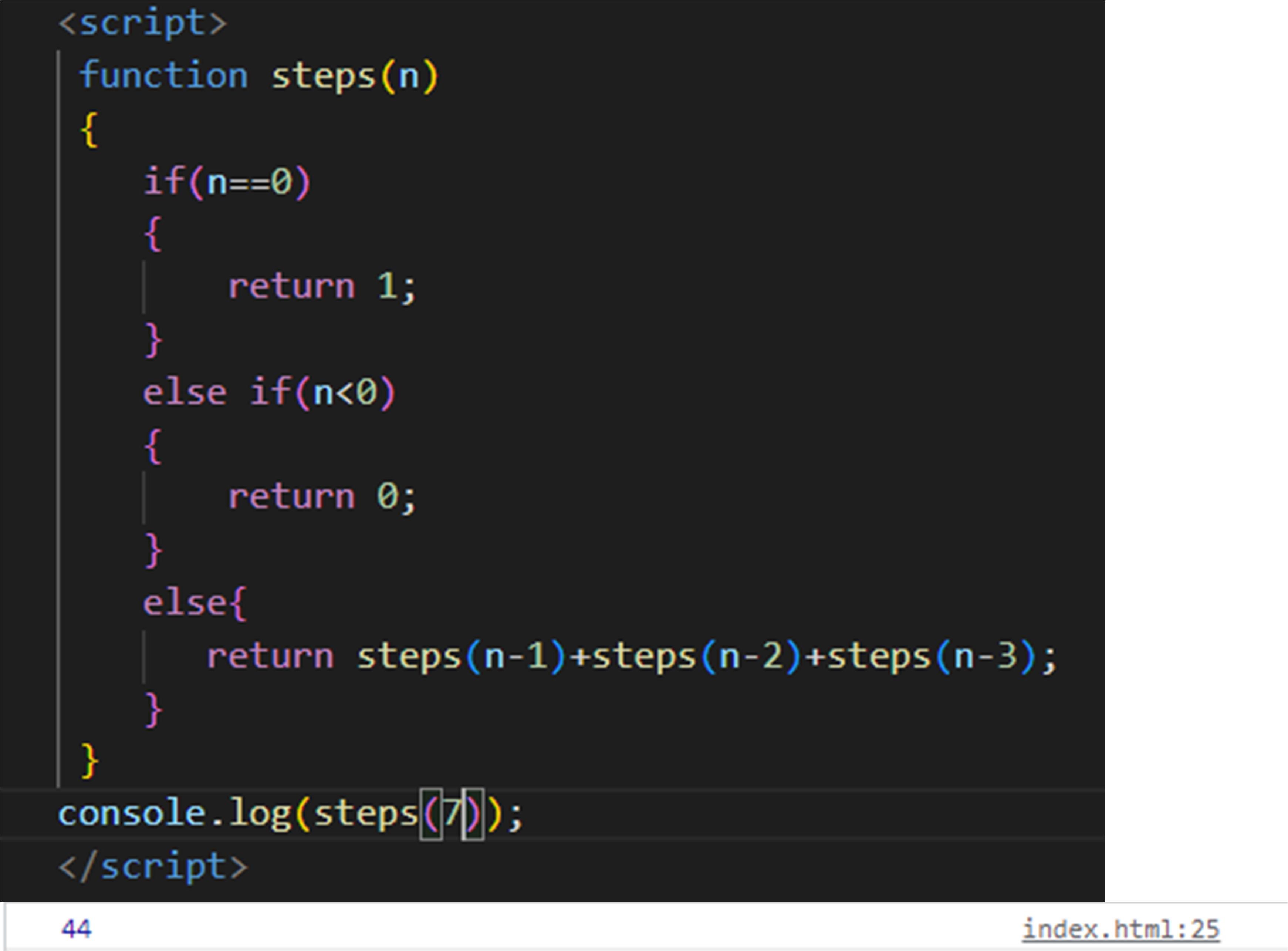
Task 1: Implement a function to calculate the factorial of a number using recursion.



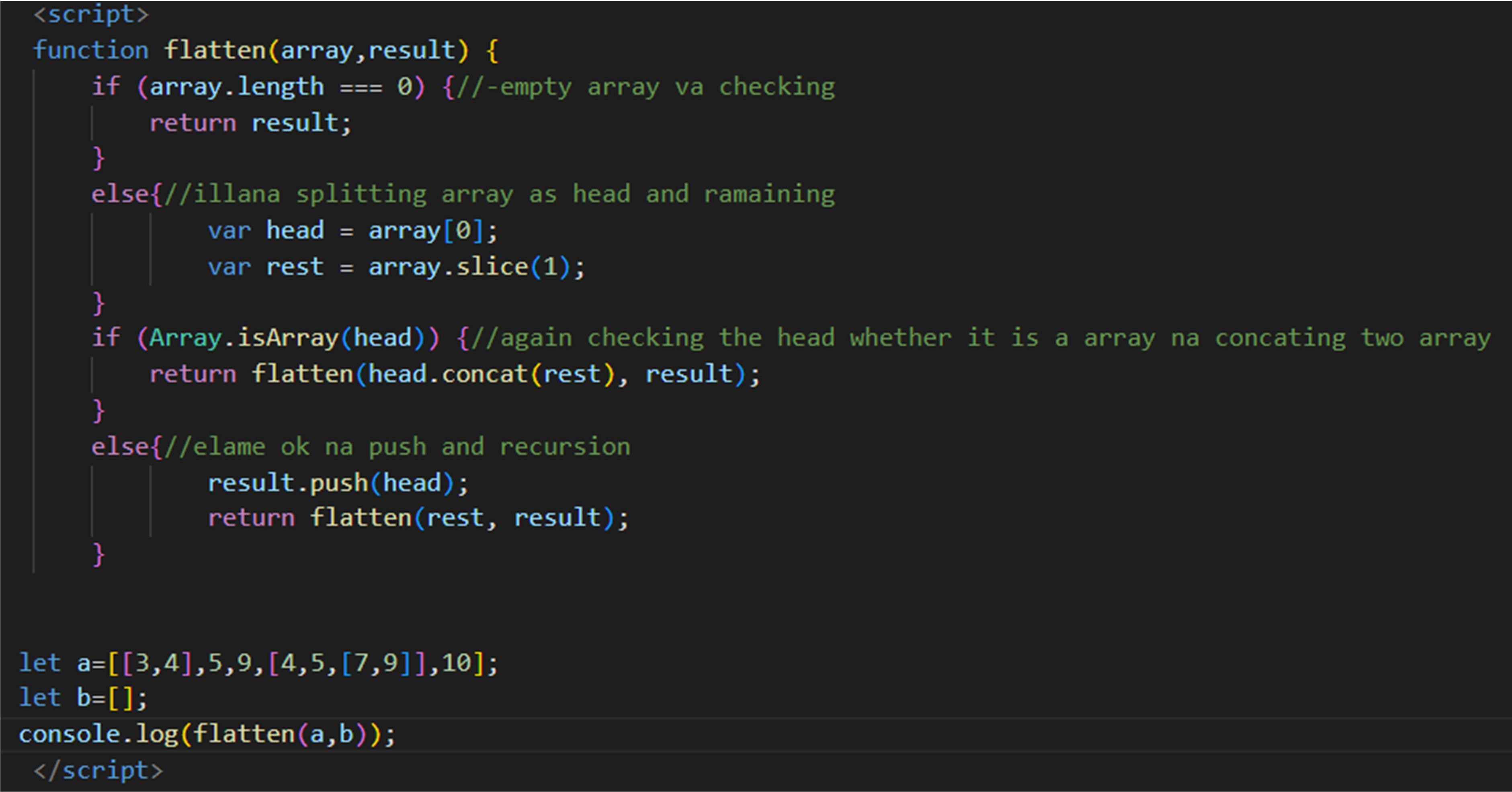
Task 2: Write a recursive function to find the nth Fibonacci number.

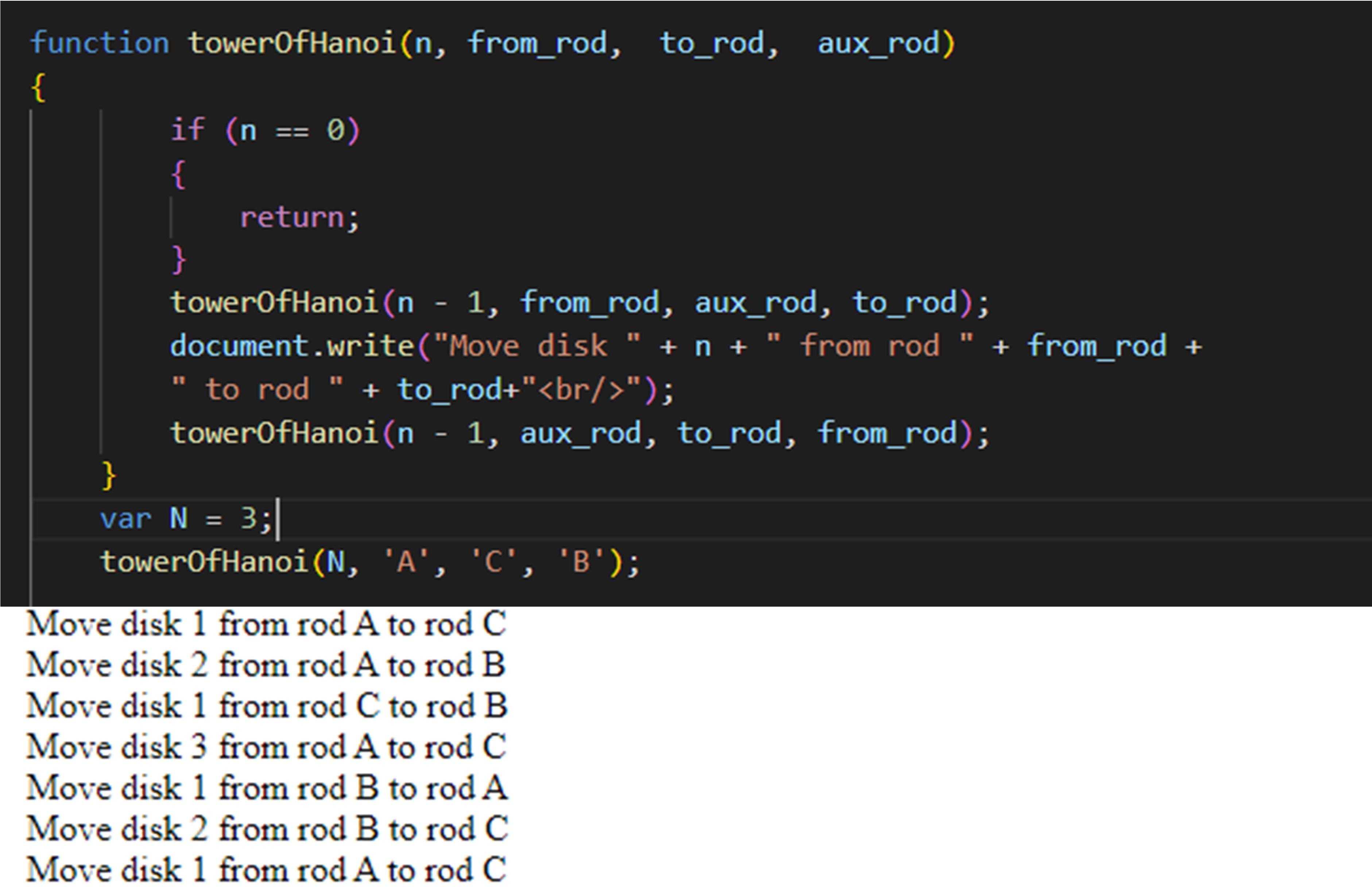


Task 3: Create a function to determine the total number of ways one can climb a staircase with 1, 2, or 3 steps at a time using recursion.



Task 4: Write a recursive function to flatten a nested array structure.



Task 5: Implement the recursive Tower of Hanoi solution.