

Question02.cpp

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1 // DSA LAB 7
2 // <---Q2--->
3
4 // Write a program and recurrence relation to find the Factorial of n where n>2.
5
6 #include <iostream>
7 using namespace std;
8
9 // Function to find the factorial of a number using recursion
10 unsigned long long factorialRecursive(int n)
11 {
12     if (n <= 1)
13     {
14         return 1;
15     }
16     else
17     {
18         return n * factorialRecursive(n - 1);
19     }
20 }
21
22 int main()
23 {
24     int n;
25
26     // Input the value of n
27     cout << "Enter the value of n (n > 2): ";
28     cin >> n;
29
30     // Check if n is greater than 2
31     if (n <= 2)
32     {
33         cout << "Invalid input. Please enter n > 2." << endl;
34         return 1; // Return an error code
35     }
36
37     // Using recursion to find the factorial of n
38     cout << "Factorial using recursion: " << factorialRecursive(n) << endl;
39     return 0;
40 }
41
```