

C++ Programming

Functions 1

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Teaching, Training and Coaching since more than a decade!

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Users wanna sum from 1 to n

```
3
4 int main() {
5     int n;
6     cin >> n;
7
8     int sum = 0;
9
10    for (int i = 1; i <= n; ++i)
11        sum += i;
12
13    cout << sum << "\n";
14
15    return 0;
16 }
17
```

Console Problems Tasks Properties

<terminated> ztemp [C/C++ Application] /home/n

10
55
|

- Easy to write
- Very repetitive task!
- Now we want to give it to programmers like you
- How to do so!
- Functions

Function: sum1_to_n

```
4 int sum1_to_n(int n) {  
5     int sum = 0;  
6  
7     for (int i = 1; i <= n; ++i)  
8         sum += i;  
9  
10    return sum;  
11 }  
12  
13 int main() {  
14     int n;  
15     cin >> n;  
16     int result = sum1_to_n(n);  
17  
18     cout << result << "\n";  
19  
20     return 0;  
21 }  
22
```

- `int sum1_to_n(int n)`
 - `int` = compute and return `int`
 - `Sum1_to_n` = function name
 - `int n` = parameter
- `int result = sum1_to_n(n);`
 - `Sum1_to_n(n)` = call it
 - `int result` = expect integer result
- Scope
 - In line 17 we can't see variable `sum` in line 5

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”