

## **Module 2 Critical Thinking**

Dennis Weddig

Colorado State University Global

CSC450: Programming III

Dr. Jack Li

8/24/2025 11:59pm

## Module 2 Critical Thinking

Repository location for Module 2 Critical Thinking assignment:

<https://github.com/denniswed/csc450/tree/main/Module2/critthink>

Code:

```

/*
Program: Create a simple C++ console application that will write a program that
will take two string inputs from a user. Your program should concatenate the two
strings and then print the resulting output to the screen. Take the two string
inputs from the user 3 times for varying string lengths.
*/

#include <iostream>
#include <string>

int main() {
    // Program introduction
    std::cout << "This program will take two strings from you and combine them."
    << std::endl;
    std::cout << "It will do this three times." << std::endl;
    std::cout << std::string(50, '-') << std::endl;

    // Loop to get input 3 times
    for (int iteration = 1; iteration <= 3; iteration++) {
        std::cout << "\n--- Round " << iteration << " of 3 ---" << std::endl;

        // Declare variables for this iteration
        std::string firstString;
        std::string secondString;
        std::string concatenatedResult;

        // Get first string from user
        std::cout << "Enter the first string: ";
        std::getline(std::cin, firstString);

        // Get second string from user
        std::cout << "Enter the second string: ";
        std::getline(std::cin, secondString);

        // Concatenate the strings using the + operator
        concatenatedResult = firstString + secondString;
    }
}

```

```
// Display the results with formatting
std::cout << "\n--- Results for Round " << iteration << " ---" << std::endl;
std::cout << "First string: \"" << firstString << "\"" << std::endl;
std::cout << "Second string: \"" << secondString << "\"" << std::endl;
std::cout << "Concatenated: \"" << concatenatedResult << "\""
<< std::endl;
```

```
// Show string length information
std::cout << "\n--- String Length Analysis ---" << std::endl;
std::cout << "First string length: " << firstString.length()
<< " characters" << std::endl;
std::cout << "Second string length: " << secondString.length()
<< " characters" << std::endl;
std::cout << "Total length: " << concatenatedResult.length()
<< " characters" << std::endl;
```

```
// Add separator between iterations
if (iteration < 3) {
    std::cout << std::string(50, '=') << std::endl;
}
}
```

```
// Program conclusion
std::cout << "\n" << std::string(50, '-') << std::endl;
std::cout << "End of program" << std::endl;
```

```
return 0;
}
```

Screenshot of above compile and execution:

```
(base) otudas@minion-dave:~/source/csc450/Module2/critthinks ./csc450_mod2_critthink
This program will take two strings from you and combine them.
It will do this three times.
-----

--- Round 1 of 3 ---
Enter the first string: Hello
Enter the second string: World

--- Results for Round 1 ---
First string:      "Hello"
Second string:     "World"
Concatenated:      "HelloWorld"

--- String Length Analysis ---
First string length: 5 characters
Second string length: 5 characters
Total length:      10 characters
=====

--- Round 2 of 3 ---
Enter the first string: ReallyLongString
Enter the second string: ANotherReallyLongString

--- Results for Round 2 ---
First string:      "ReallyLongString"
Second string:     "ANotherReallyLongString"
Concatenated:      "ReallyLongStringANotherReallyLongString"

--- String Length Analysis ---
First string length: 14 characters
Second string length: 23 characters
Total length:      37 characters
=====

--- Round 3 of 3 ---
Enter the first string: abcdefghijklmnopqrstuvwxyzAndevenmorelonglenght now with spaces
Enter the second string: 1234567890 10 11 12 13 14 15 16 17 18 19 20

--- Results for Round 3 ---
First string:      "abcdefghijklmnopqrstuvwxyzAndevenmorelonglenght now with spaces"
Second string:     "1234567890 10 11 12 13 14 15 16 17 18 19 20"
Concatenated:      "abcdefghijklmnopqrstuvwxyzAndevenmorelonglenght now with spaces1234567890 10 11 12 13 14 15 16 17 18 19 20"

--- String Length Analysis ---
First string length: 63 characters
Second string length: 43 characters
Total length:      106 characters
-----

End of program
(base) otudas@minion-dave:~/source/csc450/Module2/critthinks █
```