Module 2 Critical Thinking

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CSC450: Programming III

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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: