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Unit 2 Submission Node 2

CS288 – C++ Programming

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This submission node actually got me in a few places. Not sure why I like to complicate thing but I feel more accomplished when the code is presented cleaner and syntactically correct. My biggest gotchas with this node were: ensuring that strings with more than one word were accepted as a whole string (commented the section where I learned how to overcome this), as well as reversing the string. The latter of which was just a lack of thinking and knowing that the reverse() method changes the value of the variable, so I don’t need to store it in its own. I had an extremely fun time writing this and did a lot of refactoring (as I learned cool new tricks or thought of a better way to structure), which will probably be a downfall considering how late it is.

Here is the code for node 2 (.cpp):

// main file to determine which submission node to run  
#include <iostream>  
#include <string>  
#include "Strings.h"  
#include "Definition.h"  
  
**using namespace** std;  
  
**int** main() {  
 cout << "Welcome to Unit 2. Which file would you like to run? (string/definition)" << endl;  
 string fileChoice;  
 cin >> fileChoice;  
 **if** (fileChoice == "string") {  
 Strings strings;  
 strings.stringMain();  
 main();  
 }  
 **else if** (fileChoice == "definition") {  
 Definition definition;  
 definition.defMain();  
 main();  
 }  
 **else** {  
 cout << "That is an invalid option" << endl;  
 main();  
 }  
}  
  
//  
// Created by Ian Sabey on 10/17/18.  
//

Here is the Strings.h code:

// Unit 2 Submission 2  
// String Play Program  
#include <iostream>  
#include <cstdlib>  
#include <ctime>  
#include <string>  
  
**using namespace** std;  
  
string str1, str2, str3;  
**int** opChoice;  
**bool** again;  
  
**class** Strings {  
**public**:  
 **void** repeat() {  
 cout << "Would you like to perform another operation (y or n)? " << endl;  
 **char** againResp;  
 cin >> againResp;  
 **if** (againResp == 'y')  
 again = **true**;  
 **else** again = **false**;  
 }  
  
 **void** compare(string str1, string str2)  
 {  
 cout << "Great! Comparing..." << endl;  
 **if** (str1 != str2)  
 cout << str1 << " is not " << str2 << endl;  
 **else if** (str1 == str2)  
 cout << "Perfect Match!" << endl;  
 repeat();  
 }  
  
 **void** concat(string str1, string str2)  
 {  
 cout << "Concatenation in progress..." << endl;  
 string resultSet = str1 + str2;  
 cout << "Result string:\n" << resultSet << endl;  
 repeat();  
 }  
  
 **void** length(string final)  
 {  
 cout << "Checking length..." << endl;  
 cout << final.length() << endl;  
 repeat();  
 }  
  
 **void** reverseString(string revFinal)  
 {  
 reverse(revFinal.begin(), revFinal.**end**());  
 cout << "The reverse is: " << endl << revFinal << endl;  
 repeat();  
 }  
  
 **void** execOp(**int** opChoice) {  
 string str4, final, revStartString, str5, revFinal;  
 **switch**(opChoice) {  
 **case** 1:  
 cout << "Enter the first string. >> ";  
 cin >> str1;  
 cout << "Enter the second string. >> ";  
 cin >> str2;  
 **return** compare(str1, str2);  
 **case** 2:  
 cout << "Enter the first string. >> ";  
 cin >> str1;  
 cout << "Enter the second string. >> ";  
 cin >> str2;  
 **return** concat(str1, str2);  
 **case** 3:  
 cout << "Enter the string to check. >> " << endl;  
 cin >> str3 && getline(cin,str4);  
 final = str3 + str4;  
 **return** length(final);  
 **case** 4:  
 cout << "What would you like to reverse?" << endl;  
 // this grabs the entire line after the initial word  
 cin >> revStartString && getline(cin, str5);  
 // concatenate the 2 vars together in one string var  
 revFinal = revStartString + str5;  
 **return** reverseString(revFinal);  
 **default**:  
 cout << "Invalid option entered..";  
 }  
 }  
  
 **void** operation()  
 {  
 cout << "Which string operation would you like to run?" << endl  
 << "Options are: (1)compare, (2)concat, (3)length, (4)reverse." << endl;  
 **int** response;  
 cin >> response;  
  
 **switch**(response) {  
 **case** 1 :  
 opChoice = 1;  
 **return** execOp(opChoice);  
 **case** 2 :  
 opChoice = 2;  
 **return** execOp(opChoice);  
 **case** 3 :  
 opChoice = 3;  
 **return** execOp(opChoice);  
 **case** 4 :  
 opChoice = 4;  
 **return** execOp(opChoice);  
 **default**:  
 cout << "Please choose an option from above.\n";  
 operation();  
 }  
 }  
  
 // header 'main'  
 **void** stringMain() {  
 **do** {  
 operation();  
 } **while** (again);  
 }  
};  
  
//  
// Created by Ian Sabey on 11/2/18.  
//