

Console Application and Syntax Corrections

Stephan Peters

Colorado State University Global

CSC450-1 23WD: Programming III

Reginald Haseltine

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Console Application and Syntax Corrections

For this assignment, the students were asked to create a console application in C++ that returns general address information for an individual, and correct syntax in two additional applications to compile and run them. This paper will show the source code for all these applications, and screenshots of them running.

Print Information for a Fictional Person

This console application will ask a user for a name and address and store them in variables to output a full address after the information is entered. I was reminded of an old Infocom game, written by Douglas Adams in 1987 named [Bureaucracy](#) that begins with a terrible and frustrating form that adds random disparaging remarks about the user's name and place of residence as the user fills out the form. The game itself may be played online at [myabandonware.com](#), it begins with the form. I decided to add these comments from the form into my code as the user is asked to enter the information, just to make the project a little less boring. I retrieved the comments from a [historical archive of the source code](#).

Source Code 1

Source code for CSC450_CT1_person.cpp.

```
/*
 * A simple C++ console application that prints information
 * for a fictional person.
 * Returns the snarky responses from the bank form
 * in the Infocom Text Adventure "Bureaucracy".
 * (CSC450_CT1_person.cpp)
 */

#include <iostream>
#include <random>
#include <string>
#include <conio.h>

// Standard namespace declaration
using namespace std;

// Main Function
int main() {
```

```

string first_name;
string last_name;
string street_address;
string city;
string zip;

// Generate random number to pick snarky response.
random_device dev;
mt19937 rng(dev());
uniform_int_distribution<mt19937::result_type> dist(0, 2);

// Snarky responses
string first_name_response = {"Your parents had the last laugh."};
string last_name_response[] = {"How embarrassing for you.",
                                "A well-known criminal family.",
                                "One of a long line of losers."};
string street_address_response[] = {"Due to be condemned.",
                                     "The bad part of town.",
                                     "Next to the dump."};
string city_response[] = {"What a dump.",
                           "What a pit.",
                           "You'd better move again."};

// Get information from user.
cout << "First name: ";
getline(cin, first_name);
cout << first_name_response << endl << endl;

cout << "Last name: ";
getline(cin, last_name);
cout << last_name_response[dist(rng)] << endl << endl;

cout << "Street address: ";
getline(cin, street_address);
cout << street_address_response[dist(rng)] << endl << endl;

cout << "City: ";
getline(cin, city);
cout << city_response[dist(rng)] << endl << endl;

cout << "Zip Code: ";
getline(cin, zip);
cout << endl << endl;

// Print information to screen
cout << first_name << last_name << endl;
cout << street_address << endl;
cout << city << ", " << zip << endl << endl;

cout << "Welcome to Bureaucracy" << endl
    << "A Paranoid Fantasy" << endl;

getch();

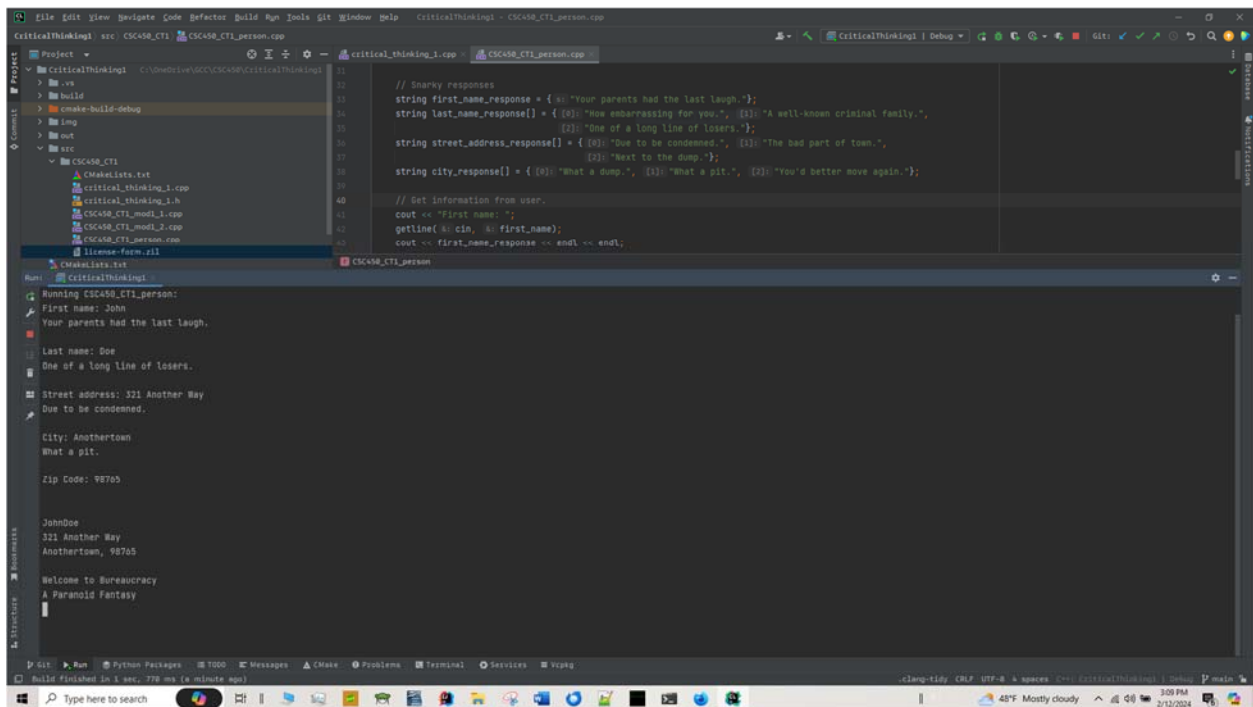
return 0;
}

```

Figure 1 shows a screenshot of the program running in the CLion IDE. A full-resolution image can be found at my [CSC450 GitHub Repository](#).

Figure 1

Running CSC450_CT1_person.exe in the JetBrains CLion IDE.



Correct Syntax in a C++ Program

In this exercise, I was asked to correct the syntax on a C++ program in order to compile and run it. There were various errors, such as a missing close to the header comment, missing quotes, missing lines, comments not preceded by a comment symbol, etc. The program in its original, broken form may be viewed in [critical_thinking_1.md at my GitHub repository](#) for this course.

Source Code 2

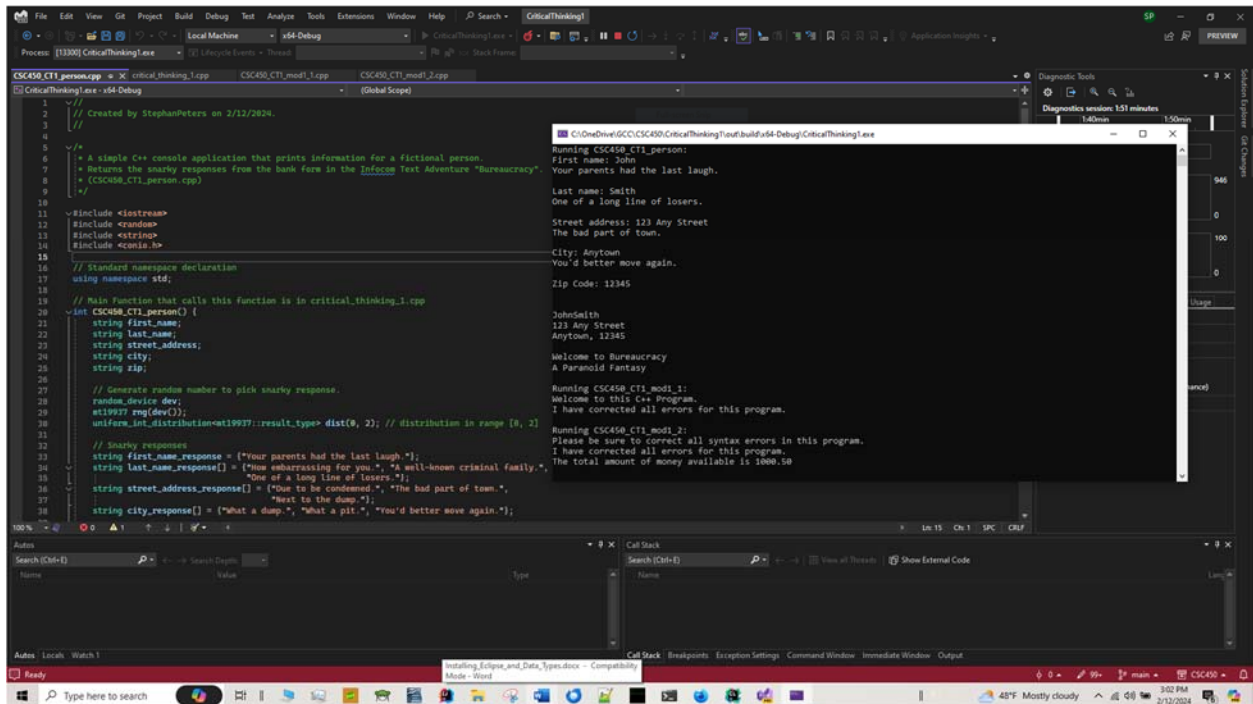
Corrected source code for CSC450_CT1_mod1_1.cpp.

```
/*  
 * Simple Program with a few Errors corrected.  
 * (CSC450_CT1_mod1_1.cpp)  
 */  
  
#include <iostream>  
#include <conio.h>  
  
// Standard namespace declaration  
using namespace std;  
  
// Main Function  
int main() {  
  
    //Standard Output Statement  
    cout << "Welcome to this C++ Program." << endl;  
  
    cout << "I have corrected all errors for this program." << endl;  
  
    // Wait For Output Screen  
    getch();  
  
    // Function return Statement  
    return 0;  
  
}
```

Figure 2 shows the output of this, and the second program corrected in this project running in the Microsoft Visual Studio 2022 Preview. This image may also be viewed [in full resolution at my CSC450 GitHub Repository](#).

Figure 2

Running CSC450_CT1_mod1_1.cpp and CSC450_CT1_mod1_2.cpp in the Microsoft Visual Studio 2022 Preview IDE.



Correct Syntax in a Second C++ Program

For this exercise, I was asked to correct the syntax on an additional C++ program in order to compile and run it. This program in its original, broken form may also be viewed in `critical_thinking_1.md` at my GitHub repository for this course.

Source Code 3

Corrected source code for CSC450_CT1_mod1_2.cpp.

```

/*
 * Simple Program with a few Errors corrected.
 * (CSC450_CT1_mod1_2.cpp)
 */

#include <iostream>
#include <iomanip>
#include <conio.h>

// Standard namespace declaration

```

```

using namespace std;

// Main Function
int main() {

    //this should be printed out
    double myMoney = 1000.50;

    // Standard Output Statement
    cout << "Please be sure to correct all syntax errors in this program."
    << endl;

    cout << "I have corrected all errors for this program." << endl;

    cout << "The total amount of money available is ";
    cout << setprecision(2) << fixed << "$" << myMoney << endl;

    // Wait for Output Screen
    getch();

    // Function return Statement
    return 0;
}

```

GitHub Repository

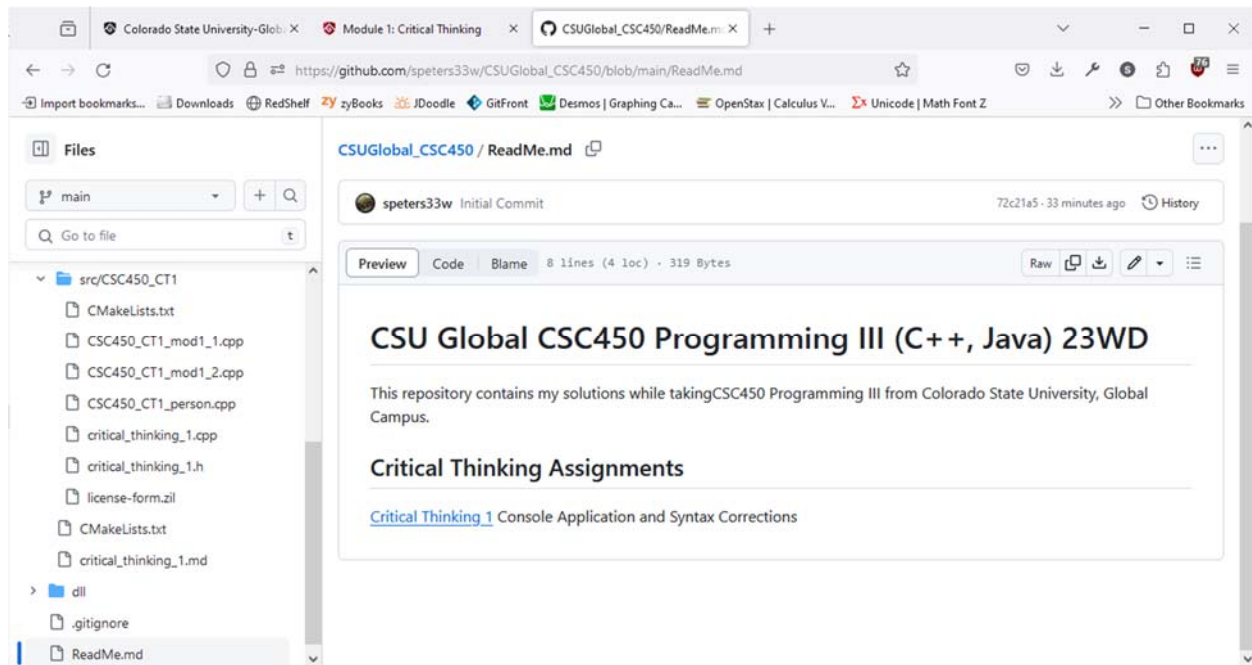
In addition to the solutions above, I was tasked to create a GitHub repository for the project. This repository is located at

https://github.com/speters33w/CSUGlobal_CSC450/tree/main/CriticalThinking1

Figure 3 shows a screenshot of the main page of this repository.

Figure 3

Image of the main page of my CSC 450 GitHub repository



Conclusion

As in other programming languages, precise syntax is required to run or compile an application from code. I found IDEs with preconfigured CMake build environments (CLion, Visual Studio) are much more user friendly than those which need manual configuration, and these manual configuration requirements change frequently from version to version. I found writing the *person* application using the comments from Bureaucracy made this project much more enjoyable. I think I'll break out [Windows Frotz](#) and see if my blood pressure goes up.

References

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<https://ifdb.org/viewgame?id=zjyxds3s57pgis3x>

Kinder, D. (n.d.). *Windows Frotz*. Davidkinder.co.uk. Retrieved February 13, 2024, from

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