

Module 1: Critical Thinking Assignment

Console Application and Syntax Corrections

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C++ Console Application

This section demonstrates the creation of a C++ console application using Eclipse IDE. The program displays basic information for a fictional individual, including first name, last name, street address, city, and zip code. The purpose of this task is to demonstrate understanding of fundamental C++ syntax, console output, and proper program structure.

Pseudocode

BEGIN PROGRAM

```
DISPLAY "First Name: Bruce"  
DISPLAY "Last Name: Wayne"  
DISPLAY "Street Address: 1007 Mountain Drive"  
DISPLAY "City: Gotham City"  
DISPLAY "Zip Code: 08109"
```

END PROGRAM

Source Code

```
#include <iostream>  
  
using namespace std;  
  
int main()  
{  
    cout << "First Name: Bruce" << endl;  
    cout << "Last Name: Wayne" << endl;  
    cout << "Street Address: 1007 Mountain Drive" << endl;  
    cout << "City: Gotham City" << endl;  
    cout << "Zip Code: 08109" << endl;  
  
    return 0;  
}
```

Program Output

```

1 #include <iostream>
2
3 using namespace std;
4
5 int main()
6 {
7     cout << "First Name: Bruce" << endl;
8     cout << "Last Name: Wayne" << endl;
9     cout << "Street Address: 1007 Mountain Drive" << endl;
10    cout << "City: Gotham City" << endl;
11    cout << "Zip Code: 08109" << endl;
12
13    return 0;
14 }
15
16
17
18
19

```

Console X
<terminated> [exit value: 0] CSC450_CT1 [C/C++ Application] /Users/hugorodriguez/eclipse-workspace/CSC450_CT1/Debug/CSC450_CT1 (2/13/26, 12:09 PM)
First Name: Bruce
Last Name: Wayne
Street Address: 1007 Mountain Drive
City: Gotham City
Zip Code: 08109

Figure 1. Console output demonstrating program execution

Syntax Error Corrections: mod1-1.cpp

This section focuses on correcting syntax errors in the provided file *CSC450_CT1_mod1-1.cpp*. The original file contained multiple issues, including improperly formatted comments, missing quotation marks, invalid statements, and missing return logic. After making the necessary corrections, the application was built and executed without errors.

Corrections Made

The following corrections were made to address compilation errors:

- Closed the initial comment block properly using */.
- Converted plain text lines into proper comments using //.
- Added missing quotation marks to string literals.
- Removed unnecessary header file (conio.h).
- Inserted the required return 0; statement.
- Ensured proper program structure with a correctly defined main() function.

Corrected Source Code

```
/*
 * Simple Program with a few Errors for Correction
 *
 * Please be sure to correct all outlined errors.
 */
```

```
* /
```

```
#include <iostream>

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;

    // Main Function return Statement
    return 0;
}
```

Program Output

The screenshot shows the Eclipse IDE interface. The Project Explorer view on the left displays a workspace named 'CSC450_CT1' containing projects 'CT1_mod1-1', 'FirstCPPTest', and 'FixedFirstCPPTest'. The 'main.cpp' file is selected in the editor view on the right. The code in the editor is identical to the one above. Below the editor is the 'Console' view, which shows the terminal output of the program's execution. The output consists of two lines: 'Welcome to this C++ Program' and 'I have corrected all errors for this program.'.

Figure 2. Console output after correcting syntax errors

Syntax Error Corrections: mod1-2.cpp

This section addresses the correction of syntax errors in the provided file *CSC450_CT1_mod1-2.cpp*. The original code contained several issues including improperly formatted comments, missing stream insertion operators, incomplete string literals, and an output statement that failed to reference a declared variable. After implementing the necessary corrections, the application built without errors and produced the expected output.

Corrections Made

The following syntax corrections were implemented:

- Converted plain text lines into proper comments using //.
- Removed the unnecessary header file (conio.h).
- Added the missing stream insertion operator (<<) in output statements.
- Corrected incomplete string literals by adding missing quotation marks.
- Modified the final output statement to correctly reference the declared variable `myMoney`.
- Ensured proper formatting and structure of the main() function.

Corrected Source Code

```
/* Simple Program with a few Errors for Correction
Please be sure to correct all outlined errors.

*/
#include <iostream>

using namespace std;

// Main Function
int main()
{
    double myMoney = 1000.50; // this should be printed out

    // 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 = " << myMoney <<
endl;

// Main Function return Statement

return 0;

}

```

Program Output

The screenshot shows the Eclipse IDE interface. The Project Explorer view on the left displays a workspace with several projects, including 'CSC450_C11', 'CT1_mod1-1', 'CT1_mod1-2', 'FirstCPPTest', and 'FixedFirstCPPTest'. The 'main.cpp' file is selected in the editor view on the right. The code contains comments and syntax errors. The 'Console' view at the bottom shows the output of the program execution, indicating that the errors have been corrected.

```

1/* Simple Program with a few Errors for Correction
2 Please be sure to correct all outlined errors.
3 */
4
5#include <iostream>
6
7using namespace std;
8
9// Main Function
10int main()
11{
12    double myMoney = 1000.50; // this should be printed out
13
14    // Standard Output Statement
15    cout << "Please be sure to correct all syntax errors in this program" << endl;
16
17    cout << "I have corrected all errors for this program." << endl;
18
19    cout << "The total amount of money available is = " << myMoney << endl;
20
21    // Main Function return Statement
22    return 0;
23}
24
25

```

<terminated> [exit value: 0] CT1_mod1-2 [C/C++ Application] /Users/hugorodriguez/eclipse-workspace/CT1_mod1-2/Debug/CT1_mod1-2 (2/13/26, 1:08 PM)
Please be sure to correct all syntax errors in this program
I have corrected all errors for this program.
The total amount of money available is = 1000.5

Figure 3. Console output after correcting syntax errors

Conclusion

This assignment strengthened my understanding of core C++ syntax and program execution within Eclipse IDE. By identifying and correcting syntax errors, I gained practical experience in debugging, proper comment formatting, stream insertion usage, and variable output. Successfully compiling and executing each program reinforced the importance of careful code structure and attention to detail in C++ development.