

Activity No. Hands-on Activity 1.3

Hands-on Activity 1.3: Writing First Program using C++ Language

Course Code: CPE007	Program: Computer Engineering
Course Title: Programming and Logic Design	Date Performed: 8/31/2025
Section: CPE11S1	Date Submitted: 9/2/2025
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Output

Exercise 4.1 : Try to create a simple program using C++ language that outputs your whole name. Using the new line syntax, output your program and the course and section.

CODE:

```
#include <iostream>
```

```
#include <iostream>
```

```
int main() {
```

```
    std::cout << "Name: Ralph Angelov F. Braganza\n";
    std::cout << "Course: CPE007\n";
    std::cout << "Section: CPE11S1";
```

```
return 0;
}
```

RESULT:

The screenshot shows the Dev-C++ IDE interface. On the left, the code editor displays the C++ program. On the right, the terminal window shows the execution results.

Code Editor (Left):

```
1 #include <iostream>
2
3 int main() {
4
5     std::cout << "Name: Ralph Angelov F. Braganza\n";
6     std::cout << "Course: CPE007\n";
7     std::cout << "Section: CPE11S1";
8
9 return 0;
10}
11
```

Terminal Window (Right):

```
C:\Users\Ralph\Desktop\College First Year\Computer Programming\FINISHED\1.3.cpp - [Executing] - Dev-C++ 5.11
Name: Ralph Angelov F. Braganza
Course: CPE007
Section: CPE11S1
Process exited after 0.06048 seconds with return value 0
Press any key to continue . . .
```

At the bottom of the IDE, status information is displayed: Line: 11, Col: 1, Sel: 0, Lines: 11, Length: 181, Insert, Done parsing in 0.016 seconds.

Exercise 4.2: Write a program in the "C++" language that prints your name 3 times. Remember to include a return statement and make proper use of the main function.

CODE:

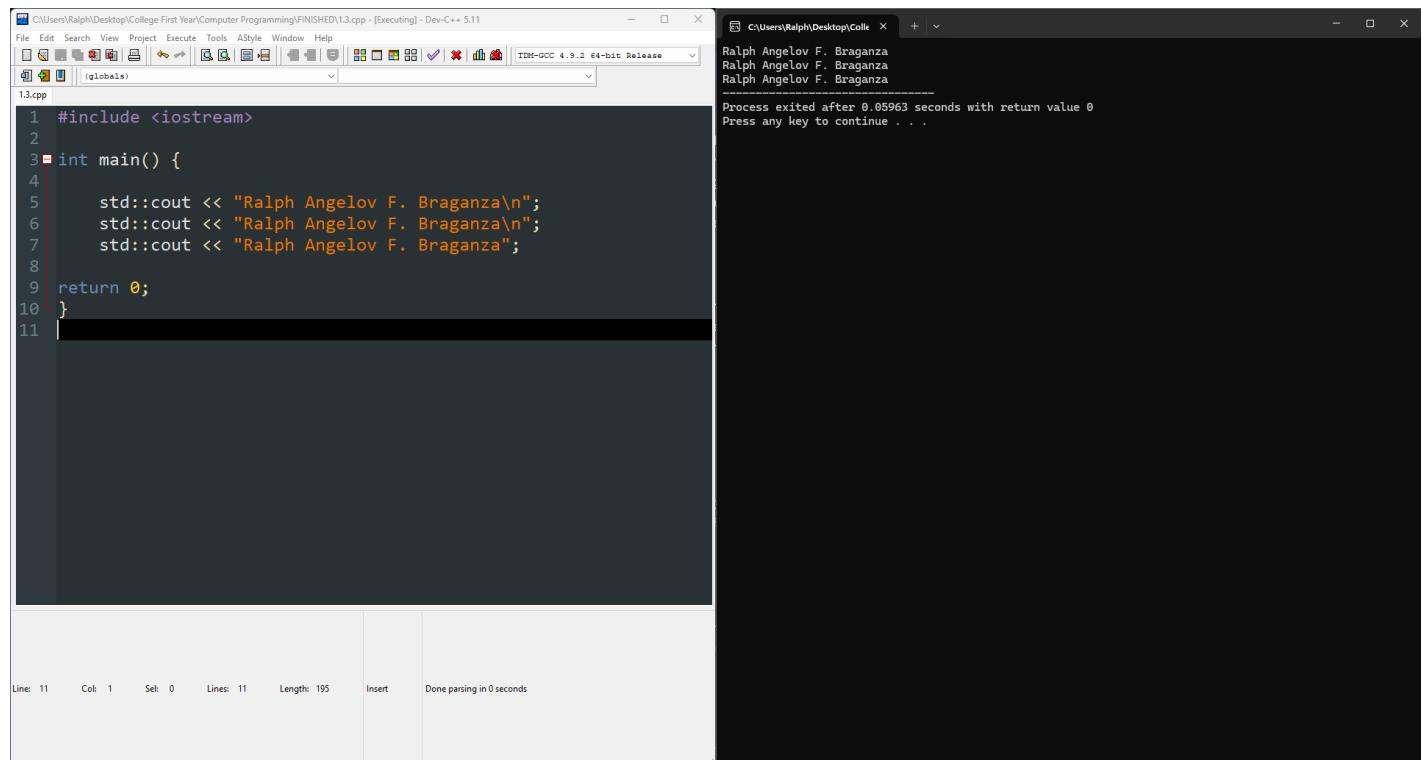
```
#include <iostream>

int main() {

    std::cout << "Ralph Angelov F. Braganza\n";
    std::cout << "Ralph Angelov F. Braganza\n";
    std::cout << "Ralph Angelov F. Braganza";

return 0;
}
```

RESULT:



The screenshot shows the Dev-C++ IDE interface. On the left, the code editor window displays the C++ source file '13.cpp' with the following content:

```
1 #include <iostream>
2
3 int main() {
4
5     std::cout << "Ralph Angelov F. Braganza\n";
6     std::cout << "Ralph Angelov F. Braganza\n";
7     std::cout << "Ralph Angelov F. Braganza";
8
9     return 0;
10}
11
```

On the right, the terminal window shows the execution results:

```
Ralph Angelov F. Braganza
Ralph Angelov F. Braganza
Ralph Angelov F. Braganza
Process exited after 0.05963 seconds with return value 0
Press any key to continue . . .
```

At the bottom of the Dev-C++ interface, status information is displayed: Line: 11, Col: 1, Sel: 0, Lines: 11, Length: 195, Insert, Done parsing in 0 seconds.

Supplementary Activity

1. Check the program below. Find all possible compilation errors and logic errors. Fix them. Your version of the program must print the same result as the expected output. Before you use your compiler, try to find the errors only by manual code analysis.

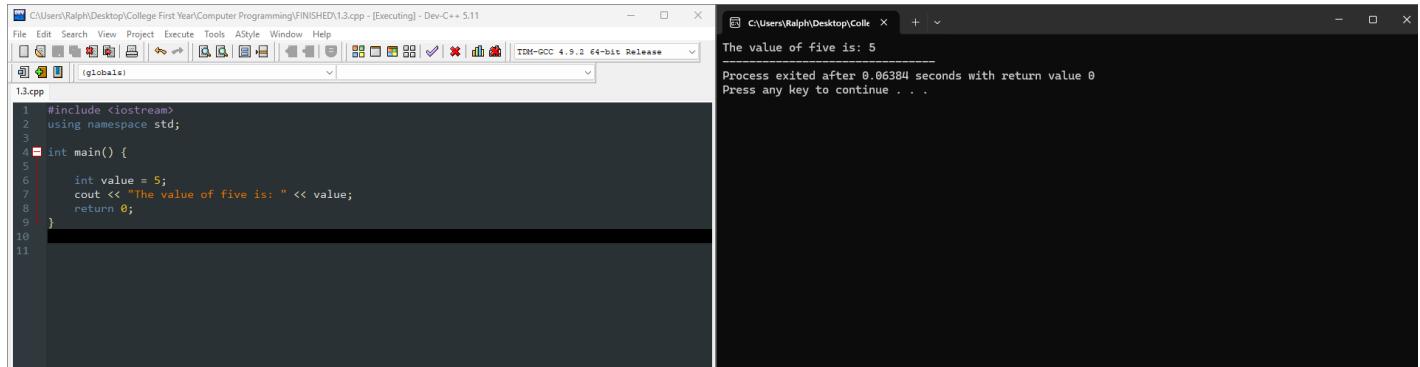
ERROR CODE:

```
#include <iostream>
int main()
{
    cout("The value of five is:"<< 5int);
    return 0;
}
```

Example Output:

The value of five is: 5

REVISED CODE:



The screenshot shows two windows from the Dev-C++ IDE. The left window is titled '1.3.cpp' and contains the original erroneous code. The right window is titled 'C:\Users\Ralph\Desktop\College First Year\Computer Programming\FINISHED\1.3.cpp - [Executing]' and shows the corrected output.

```
1.3.cpp
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5
6     int value = 5;
7     cout << "The value of five is: " << value;
8
9 }
10
11
```

The output window shows the corrected output:

```
The value of five is: 5
Process exited after 0.06384 seconds with return value 0
Press any key to continue . . .
```

The problem with the program was that "5int" was improperly named because it starts with a number and even if it was properly named the value of 5 wasn't assigned to anything. Incorrect cout syntax, the cout statement uses parentheses () instead of the stream insertion operator "<<" but it still wouldn't work because it doesn't have the function "using namespace std;" to be able print it out or you could type std::cout instead.

2. Check the program below. Find all possible compilation errors and logic errors. Fix them. Your version of the program must print the same result as the expected output. Before you use your compiler, try to find the errors only by manual code analysis.

ERROR CODE:

```
int main()
{
    cout<<"The value of six is:"<<16,0-10-;
    return 0;
}
```

Example output

The value of six is: 6

FIXED CODE:

The screenshot shows the Dev-C++ IDE interface. On the left, the code editor displays the following C++ code:

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5
6     cout << "The value of six is: " << 16-10;
7     return 0;
8 }
9
10
```

On the right, the terminal window shows the output of the program:

```
The value of six is: 6
Process exited after 0.06091 seconds with return value 0
Press any key to continue . . .
```

The code is missing the header (#include <iostream>) to be able to use directives and it also missing the directive “using namespace std;” to be able to use cout as itself or you could type it as std::cout for it to be able to function and print out. The expression is all over the place, it shouldn’t contain a comma and a negative sign at the end.

3. Check the program below. Find all possible compilation errors and logic errors. Fix them. Your version of the program must print the same result as the expected output. Before you use your compiler, try to find the errors only by manual code analysis. If you want to improve the variable names, then do so, but remember that variable names have to be as descriptive as possible, and also as short as possible.

ERROR CODE:

```
#include <iostream>
using namespace std;

int main()
{
    int simpleVariable = 10;
    cout<<"The value of ten is:"<<otherVariable);
    return 0;
}
```

Example output

The value of ten is: 10

FIXED CODE:

The screenshot shows the Dev-C++ IDE interface. On the left, the code editor displays the following C++ code:

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5
6     int valueOfTen = 10;
7     cout << "The value of ten is: " << valueOfTen;
8     return 0;
9 }
10
11 |
```

On the right, the terminal window shows the output of the program:

```
The value of ten is: 10
Process exited after 0.05926 seconds with return value 0
Press any key to continue . . .
```

The program declares an integer variable simpleVariable and assigns it the value 10. However, the cout statement then tries to print a different variable, otherVariable, which wasn’t declared to anything at all, resulting to an error of course. I changed the integer variable name to valueOfTen to be more descriptive and readable I also removed that random parenthesis at the end of the variable because that will also result in an error.

4. Check the program below. Find all possible compilation errors and logic errors. Fix them. Your version of the program must print the same result as the expected output. Before you use your compiler, try to find the errors only by manual code analysis. If you want to improve the variable names, then do so, but remember that variable names have to be as descriptive as possible, and also as short as possible.

ERROR CODE:

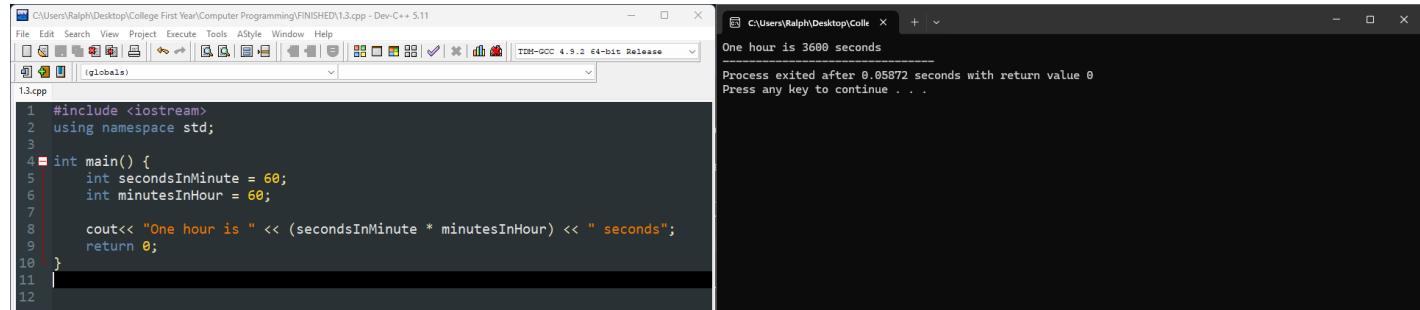
```
#include <iostream>
using namespace std;

int main()
{
    int 60seconds = 60;
    int 60minutes = 50;
    cout<<"One hour is "<<60seconds * 60minutes);
    return 0;
}
```

Example output

One hour is 3600 seconds

FIXED CODE:



The screenshot shows the Dev-C++ IDE interface. On the left, the code editor window displays the original code with several syntax errors. On the right, the terminal window shows the output of the program, which is correct but includes a timestamp at the end.

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int secondsInMinute = 60;
6     int minutesInHour = 60;
7
8     cout<< "One hour is " << (secondsInMinute * minutesInHour) << " seconds";
9     return 0;
10}
11
12
```

```
C:\Users\Ralph\Desktop\College First Year\Computer Programming\FINISHED\1.3.cpp - Dev-C++ 5.11
File Edit Search View Project Execute Tools AStyle Window Help
C:\Users\Ralph\Desktop\Collie + ...
1.3.cpp
One hour is 3600 seconds
Process exited after 0.05872 seconds with return value 0
Press any key to continue . . .
```

The problem with the code was the variable names; they shouldn't begin with a number, so I renamed them so the code would work properly and the names would be more descriptive. The value for the integer variable minutes was wrong; it was 50 instead of 60 to add up to 3600. I also added <<" seconds" so it would specify that 3600 is seconds.

5. Check the program below. Find all possible compilation errors and logic errors. Fix them. Your version of the program must print the same result as the expected output. Before you use your compiler, try to find the errors only by manual code analysis. If you want to improve the variable names, then do so, but remember that variable names have to be as descriptive as possible, and also as short as possible.

ERROR CODE:

```
#include <iostream>
using namespace std;

int main()
{
    int ip Part1 = 027;
    int ip Part2 = 0;
    int ip Part3 = 0;
    int ip Part4 = 1;
    cout<<"Localhost IP is "<< ip Part1, ip Part2, ip Part3, ip Part4);
}
```

Example output

Localhost IP is 127.0.0.1

FIXED CODE:



The screenshot shows the Dev-C++ IDE interface. The left pane displays the code for '13.cpp':

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int ipPart1 = 127;
6     int ipPart2 = 0;
7     int ipPart3 = 0;
8     int ipPart4 = 1;
9
10    cout<< "localhost IP is " << ipPart1 << "." << ipPart2 << "." << ipPart3 << "." << ipPart4;
11
12    return 0;
13 }
14
```

The right pane shows the terminal output:

```
C:\Users\Ralph\Desktop\Colle > 13.cpp
localhost IP is 127.0.0.1
Process exited after 0.05693 seconds with return value 0
Press any key to continue . . .
```

The first problem with the code was the variable names, it had a space between the “ip” and “Part” number which will result in an error. The 027 wont result in a compilation error but it is a logic error because the result should be 127.0.0.1 not 23.0.0.1, another error was the commas for the parts of the IP this will only print the first part and disregard the rest. I fixed this problem by using << operator and added “.” In between each IP part so it would print out 127.0.0.1 and removed that random parenthesis because it will result in a compilation error.

Conclusion

The tasks were slightly easy, but these are common mistakes even professionals go through in their everyday lives. This activity was able to enhance my critical thinking and analysis for me to be able to fix common errors and possible errors in the future as well. It will also give me the knowledge and skills to double-check quickly but also effectively at the same. I also learned to name variables properly so that it would be easier for me and other people to read my code.

Assessment Rubric

Rubric for SO 7 (3)							
Criteria		Ratings					Pts
◎ SO 7 PI 1 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent Educational interests and pursuits exist and flourish outside classroom requirements,knowledge and/or experiences are pursued independently and applies knowledge learned into practice	5 pts Good Educational interests and pursuits exist and flourish outside classroom requirements,knowledge and/or experiences are pursued independently	4 pts Satisfactory Look beyond classroom requirements, showing interest in pursuing knowledge independently	3 pts Unsatisfactory Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently	2 pts Poor Relies on classroom instruction only	1 pts Very Poor No initiative or interest in acquiring new knowledge	6 pts
◎ SO 7 PI 2 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent Completes an assigned task independently and practices continuous improvement	5 pts Good Completes an assigned task without supervision or guidance	4 pts Satisfactory Requires minimal guidance to complete an assigned task	3 pts Unsatisfactory Requires detailed or step-by-step instructions to complete a task	2 pts Poor Shows little interest to complete a task independently	1 pts Very Poor No interest to complete a task independently	6 pts
◎ SO 7 PI 3 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent Synthesizes and integrates information from a variety of sources; formulates a clear and precise perspective; draws appropriate conclusions	5 pts Good Evaluate information from a variety of sources; formulates a clear and precise perspective.	4 pts Satisfactory Analyze information from a variety of sources; formulates a clear and precise perspective.	3 pts Unsatisfactory Apply the gathered information to formulate the problem	2 pts Poor Gather and summarized the information from a variety of sources but failed to formulate the problem	1 pts Very Poor Gather information from a variety of sources	6 pts
◎ SO 7 PI 4 IILO4 Utilize lifelong learning skills in pursuit of personal development and excellence in professional practice. threshold: 4.8 pts	6 pts Excellent Ideas are combined in original and creative ways in line with the new and emerging technology trends to solve a problem or address an issue.	5 pts Good Ideas are creative and adapt the new knowledge to solve a problem or address an issue	4 pts Satisfactory Ideas are creative in solving a problem, or address an issue	3 pts Unsatisfactory Shows some creative ways to solve the problem	2 pts Poor Shows initiative and attempt to develop creative ideas to solve the problem	1 pts Very Poor Ideas are copied or restated from the sources consulted	6 pts