

## Activity No. 1.3

### Writing First Program Using C++ Language

Course Code: CPE007

Program: Computer Engineering

Course Title: Programming Logic and Design

Date Performed: 8/29/2025

Section: CPE11S1

Date Submitted: 9/1/2025

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Instructor: Engr. Jimlord M. Quejado

#### 6. Output

##### Exercise 4.1

<div>main.cpp</div> <pre>1 //This outputs my name, course and section. 2 #include &lt;iostream&gt; 3 4 int main() 5 { 6     std::cout&lt;&lt;"Nathaniel Borja Mendoza"&lt;&lt;std::endl; 7     std::cout&lt;&lt;"CPE007"&lt;&lt;std::endl; 8     std::cout&lt;&lt;"CPE11S1"&lt;&lt;std::endl; 9 }</pre>	<div>Output</div> <pre>Nathaniel Borja Mendoza CPE007 CPE11S1  === Code Execution Successful ===</pre>
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##### Exercise 4.2

<div>main.cpp</div> <pre>1 //This outputs my name, course and section. 2 #include &lt;iostream&gt; 3 4 int main() 5 { 6     std::cout&lt;&lt;"Nathaniel Borja Mendoza"&lt;&lt;std::endl; 7     std::cout&lt;&lt;"Nathaniel Borja Mendoza"&lt;&lt;std::endl; 8     std::cout&lt;&lt;"Nathaniel Borja Mendoza"; 9 }</pre>	<div>Output</div> <pre>Nathaniel Borja Mendoza Nathaniel Borja Mendoza Nathaniel Borja Mendoza  === Code Execution Successful ===</pre>
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#### 7. Supplementary Activity

##### 1. Given Code and Output

<div>main.cpp</div> <pre>1 #include &lt;iostream&gt; 2 3 int main() 4 { 5     cout("The value of five is:"&lt;&lt;5int); 6     return 0; 7 }</pre>	<div>Output</div> <pre>ERROR! /tmp/Y8lFTKGvuB/main.cpp: In function 'int main()': /tmp/Y8lFTKGvuB/main.cpp:5:31: error: unable to find numeric literal operator 'operator""int'    5   cout("The value of five is:"&lt;&lt;5int);                                      ^~~~  ERROR! /tmp/Y8lFTKGvuB/main.cpp:5:1: error: 'cout' was not declared in this scope; did you mean 'std::cout'?    5   cout("The value of five is:"&lt;&lt;5int);            ^~~~            std::cout  In file included from /tmp/Y8lFTKGvuB/main.cpp:1: /usr/local/include/c++/14.2.0/iostream:63:18: note: 'std::cout' declared here    63       extern ostream cout;          ///&lt; Linked to standard output                             ^~~~  === Code Exited With Errors ===</pre>
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### Errors:

1. Line 2 is missing "using namespace std". Or did not use it and still proceeds to write without "std::" after cout.
2. Line 5 used invalid use of parenthesis "(" with cout.
3. Line 5 invalid 5int. Must be after "{" and do int five = 5 or int x = 5, number works as well.
4. Line 5 did not use "<<" after cout. Also missing cout before semicolon.
5. Did not use the end line or \n for code clarity. Optional in this situation but better to be included.

### Correct Code and Output

main.cpp	Output
<pre>1 #include &lt;iostream&gt; 2 int main() 3 { 4     int five = 5; 5     std::cout&lt;&lt;"The value of five is :"&lt;&lt;five&lt;&lt;std::endl; 6     return 0; 7 }</pre>	<pre>The value of five is :5  === Code Execution Successful ===</pre>

### 2. Given Code and Output

main.cpp	Output
<pre>1 int main() 2 { 3     cout&lt;&lt;"The value of six is:"&lt;&lt;16,0-10; 4     return 0; 5 }</pre>	<pre>ERROR! /tmp/14wGd7oz6G/main.cpp: In function 'int main()': /tmp/14wGd7oz6G/main.cpp:3:5: error: 'cout' was not declared in this scope   3       cout&lt;&lt;"The value of six is:"&lt;&lt;16,0-10;           ^~~~~  === Code Exited With Errors ===</pre>

### Errors:

1. Missing "#include <iostream>".
2. Missing "using namespace std". Or did not use it and still proceeds to write without "std::" after cout.
3. Line 3 wrong use of Arithmetic Operations and use of integers. If the expected value is "6" then, it must be ( 16 - 10 ) or 16 is subtracted by 10 will equal to 6. Therefore to conclude a logical error.

### Correct Code and Output

main.cpp	Output
<pre>1 #include &lt;iostream&gt; 2 int main() 3 { 4     std::cout &lt;&lt; "The value of six is: " &lt;&lt; (16 - 10) &lt;&lt; std::endl; 5     return 0; 6 }</pre>	<pre>The value of six is: 6  === Code Execution Successful ===</pre>





### 3. Given Code and Output

main.cpp	Output
<pre>1 #include &lt;iostream&gt; 2 using namespace std; 3 4 int main() 5 { 6     int simpleVariable = 10; 7     cout&lt;&lt;"The value of ten is:"&lt;&lt;otherVariable; 8     return 0; 9 }</pre>	<pre>ERROR! /tmp/dagcH5aIrk/main.cpp: In function 'int main()': /tmp/dagcH5aIrk/main.cpp:7:31: error: 'otherVariable' was not declared in this scope   7   cout&lt;&lt;"The value of ten is:"&lt;&lt;otherVariable;                                     ^~~~~~  === Code Exited With Errors ===</pre>






### Errors:

1. Line 7 used "otherVariable" instead of "simpleVariable".

### Correct Code and Output

main.cpp	   Share 	Output
<pre>1 #include &lt;iostream&gt; 2 using namespace std; 3 4 int main() 5 { 6     int simpleVariable = 10; 7     cout&lt;&lt;"The value of ten is:"&lt;&lt;simpleVariable; 8     return 0; 9 }</pre>		<pre>The value of ten is:10  === Code Execution Successful ===</pre>





### 4. Given Code and Output

main.cpp	   Share 	Output 
<pre>1 #include &lt;iostream&gt; 2 using namespace std; 3 4 int main() 5 { 6     int 60seconds = 60; 7     int 60minutes = 50; 8     cout&lt;&lt;"One hour is "&lt;&lt;60seconds * 60minutes; 9     return 0; 10 } 11 12</pre>		<pre>ERROR! /tmp/6Tw8ptC0pF/main.cpp: In function 'int main()': /tmp/6Tw8ptC0pF/main.cpp:6:5: error: expected unqualified-id before numeric constant 6   int 60seconds = 60;          ^~~~~~ /tmp/6Tw8ptC0pF/main.cpp:7:5: error: expected unqualified-id before numeric constant 7   int 60minutes = 50;          ^~~~~~ ERROR! /tmp/6Tw8ptC0pF/main.cpp:8:23: error: unable to find numeric literal operator 'operator'"seconds' 8   cout&lt;&lt;"One hour is "&lt;&lt;60seconds * 60minutes;                            ^~~~~~ /tmp/6Tw8ptC0pF/main.cpp:8:35: error: unable to find numeric literal operator 'operator'"minutes' 8   cout&lt;&lt;"One hour is "&lt;&lt;60seconds * 60minutes;                                       ^~~~~~  === Code Exited With Errors ===</pre>

### Errors:

1. Line 6 and 7 variables cannot start with digits. (60 seconds and 60 minutes is invalid).
2. Line 7 Logical Error since the written integer was 60minutes = 50 which is invalid.
3. Line 8 missing output of seconds. (Expected Output)
4. Line 8 incorrect use of Arithmetic Operations. Must be (seconds \* minutes) without the digits.

### Correct Code and Output

main.cpp	   Share 	Output
<pre>1 #include &lt;iostream&gt; 2 using namespace std; 3 4 int main() 5 { 6     int seconds = 60; 7     int minutes = 60; 8     cout &lt;&lt; "One hour is " &lt;&lt; (seconds * minutes) &lt;&lt; " seconds" &lt;&lt; endl; 9     return 0; 10 }</pre>		<pre>One hour is 3600 seconds  === Code Execution Successful ===</pre>

## 5. Given Code and Output

main.cpp	Output
<pre>1 #include &lt;iostream&gt; 2 using namespace std; 3 4 int main() 5 { 6     int ip Part1 = 027; 7     int ip Part2 = 0; 8     int ip Part3 = 0; 9     int ip Part4 = 1; 10    cout&lt;&lt;"Localhost IP is "&lt;&lt; ip Part1, ip Part2, ip Part3, ip Part4; 11 }</pre>	<pre>ERROR! /tmp/6ICs8xAvw/main.cpp: In function 'int main()': /tmp/6ICs8xAvw/main.cpp:6:8: error: expected initializer before 'Part1' 6   int ip Part1 = 027;               ^~~~~ /tmp/6ICs8xAvw/main.cpp:7:8: error: expected initializer before 'Part2' 7   int ip Part2 = 0;               ^~~~~ /tmp/6ICs8xAvw/main.cpp:8:8: error: expected initializer before 'Part3' 8   int ip Part3 = 0;               ^~~~~ /tmp/6ICs8xAvw/main.cpp:9:8: error: expected initializer before 'Part4' 9   int ip Part4 = 1;               ^~~~~ ERROR! /tmp/6ICs8xAvw/main.cpp:10:28: error: 'ip' was not declared in this scope 10   cout&lt;&lt;"Localhost IP is "&lt;&lt; ip Part1, ip Part2, ip Part3, ip Part4;                                 ^~ === Code Exited With Errors ===</pre>

### Errors:

1. Invalid use of variables, which is the use of spaces between variables like "ipPart 1,2,3 and 4".
2. Wrong integer "027" it will be read as octal in c++ language and be translated to 23.  
Why did It become 23?  $027(8) = 2 \times 8^1 + 7 \times 8^0 = 16 + 7 = 23$
3. Wrong use of cout syntax "<<". The code was written and used commas which is invalid.
4. Line 10 has space between variables, also invalid.

### Correct Code and Output

main.cpp	Output
<pre>1 #include &lt;iostream&gt; 2 using namespace std; 3 4 int main() 5 { 6     int ipPart1 = 127; 7     int ipPart2 = 0; 8     int ipPart3 = 0; 9     int ipPart4 = 1; 10    cout &lt;&lt; "Localhost IP is " 11    &lt;&lt; ipPart1 &lt;&lt; "." &lt;&lt; ipPart2 &lt;&lt; "." &lt;&lt; ipPart3 &lt;&lt; "." &lt;&lt; ipPart4 &lt;&lt; endl; 12    return 0; 13 }</pre>	<pre>Localhost IP is 127.0.0.1  === Code Execution Successful ===</pre>

## 8. Conclusion

I was able to accomplish these tasks in a short amount of time which made me realize that I am slowly improving on coding C++ Languages slowly but progressively which is good for my learning as I cannot speed things up since it is a sign of improvement for me as a learner. Therefore I can conclude that I was able to code simple instructions of C++ instructions and debug given programs and fix it myself for it to be executable. It is a good learning for the upcoming exams as well.