Lesson 2: CODE: Write and Run Your First C++ Program SEND FEEDBACK Introduction to the C++ Language

RESOURCES CONCEPTS

SEARCH

2. CODE: Write and Run Your First C...

3. Compiled Languages vs Scripted L...

- 4. C++ Output and Language Basics
- 5. CODE: Send Output to the Console
- 6. How to Store Data
- 7. Bjarne Introduces C++ Types
- 8. Primitive Variable Types
- 9. What is a Vector?

✓ 10. C++ Vectors

✓ 11. C++ Comments

- 12. Using Auto

- 14. Getting Ready for Printing
- 15. Working with Vectors
- 16. For Loops
- 17. Functions

18. CODE: Print the Board

19. If Statements and While Loops

- 20. Reading from a File

21. CODE: Read the Board from a File

22. Processing Strings

- 23. Adding Data to a Vector
- 24. CODE: Parse Lines from the File
- 25. CODE: Use the ParseLine Function
- 26. Formatting the Printed Board
- 27. CODE: Formatting the Printed Bo...
- ✓ 28. CODE: Store the Board using the ...
- ☑ 29. Great Work!

Write and Run Your First C++ Program



Now that you have a sense of what you will be building in this lesson, you can learn about the tools that you will use. To get started, it helps to know a little bit about the C++ programming language. C++ is a compiled language; there is a separate program - the compiler - that converts your code to an executable program that the computer can run. This means that running a new C++ program is normally a two step process:

1. Compile your code with a compiler.

2. Run the executable file that the compiler outputs.

C++ Main()

In C++, every program contains a main function which is executed automatically when the program is run. Every part of a C++ program is run directly or indirectly from main, and the most basic program that will compile in C++ is just a main function with nothing else.

main() should return an integer (an int in C++), which indicates if the program exited successfully. This is specified in code by writing the return type, followed by the main function name, followed by empty arguments:

int main()

The body of the main(), which comes after the main function name and arguments, is enclosed in curly brackets: [{ and [}]. In this exercise, you will write the smallest possible C++ program, which is a main function with empty body. If you have trouble, have a look at the solution.cpp file in the workspace below.

Remember that you can compile and run your program with the following:

- 1. To compile, use the following command: g++ main.cpp
- 2. To run, use: ./a.out

To Complete This Exercise:

• Write a main function in the main.cpp file below, and then compile and run the program. The program will not have any output, but it should compile and run without errors.

