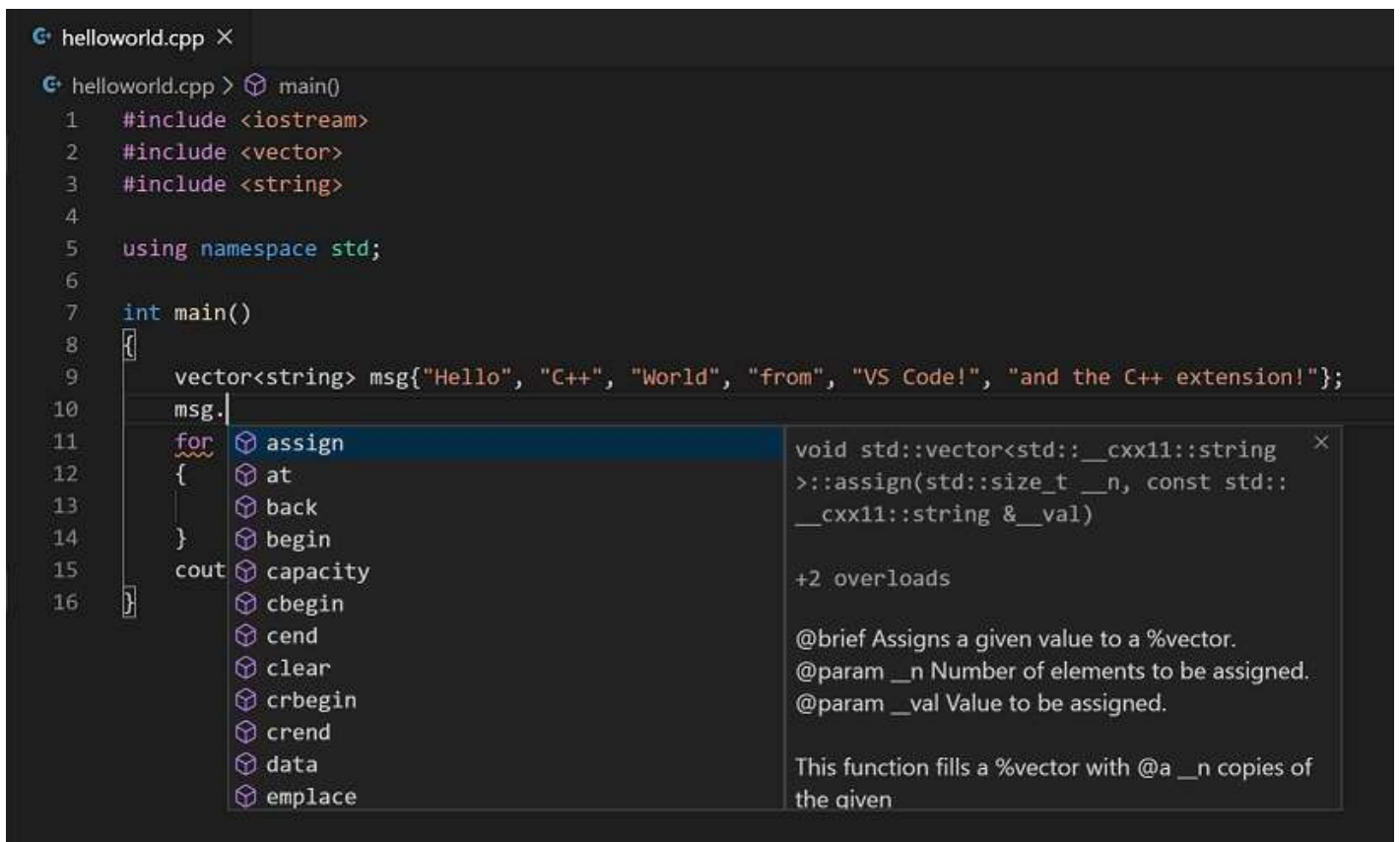


# C/C++ for Visual Studio Code

C/C++ support for Visual Studio Code is provided by a [Microsoft C/C++ extension](#) to enable cross-platform C and C++ development on Windows, Linux, and macOS. When you create a `*.cpp` file, the extension adds features such as syntax highlighting (colorization), smart completions and hovers (IntelliSense), and error checking.



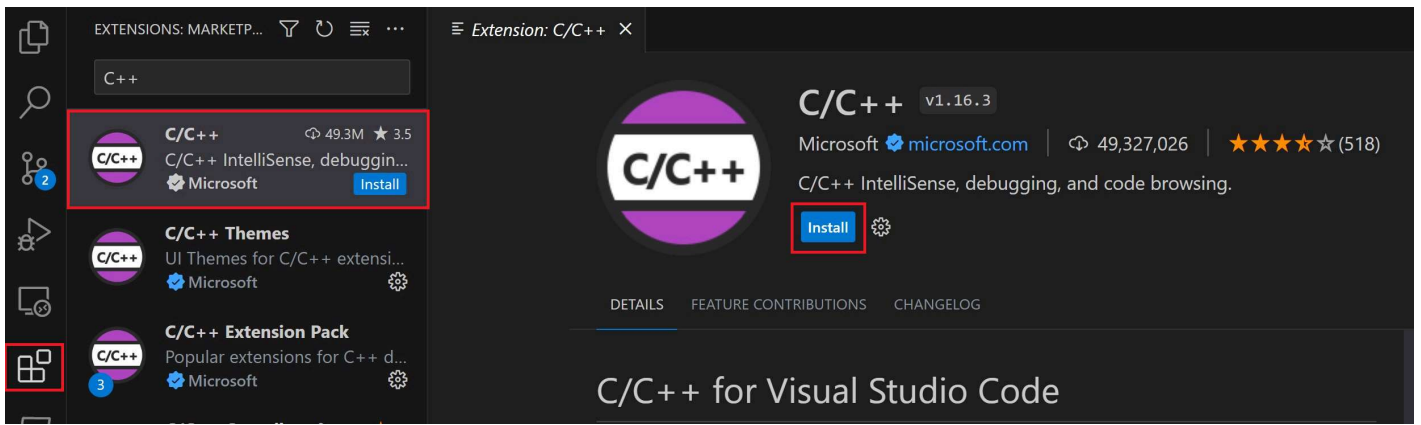
The screenshot shows the Visual Studio Code editor with a file named `helloworld.cpp`. The code is as follows:

```
1 #include <iostream>
2 #include <vector>
3 #include <string>
4
5 using namespace std;
6
7 int main()
8 {
9     vector<string> msg{"Hello", "C++", "World", "from", "VS Code!", "and the C++ extension!"};
10    msg.
11    for
12    {
13    }
14    cout
15    capacity
16 }
```

IntelliSense completions are shown for the `msg.` property access, listing methods like `assign`, `at`, `back`, `begin`, `cbegin`, `cend`, `clear`, `crbegin`, `crend`, `data`, and `emplace`. A hover tooltip is visible for the `assign` method, showing its signature: `void std::vector<std::__cxx11::string>::assign(std::size_t __n, const std::__cxx11::string &__val)`, indicating it has 2 overloads. The tooltip also includes a brief description: "Assigns a given value to a %vector." and parameters: "@param \_\_n Number of elements to be assigned." and "@param \_\_val Value to be assigned.".

## Install the extension

1. Open VS Code.
2. Select the Extensions view icon on the Activity bar or use the keyboard shortcut (`Ctrl+Shift+X`).
3. Search for `'C++'`.
4. Select **Install**.



# Set up your C++ Environment

C++ is a compiled language meaning your program's source code must be translated (compiled) before it can be run on your computer. The C/C++ extension doesn't include a C++ compiler or debugger, since VS Code as an editor relies on command-line tools for the development workflow. You need to install these tools or use the tools already installed on your computer