Introduction to C and C++

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What is C++?

C++ is…

- A general-purpose programming language
- Imperative (like C) but also object-oriented
- Designed for performance and flexibility
- Standardised by ISO

Why C++?

- Widely used
- Fast and portable
- Many libraries (especially for scientific computing)
- Full access to existing C and FORTRAN code

Compiling and running

You'll need…

1. A text editor (or IDE) to write code in
2. A compiler to turn what you write into machine code

Hello world!

```cpp
#include <iostream>

using namespace std;

int main()
{
    // Print "Hello world" to standard output
    cout << "Hello world!" << endl;
    return 0;
}
```

Semicolons everywhere

Don't forget the semicolon;

- Semicolons denote the end of a statement;
- If you wanted, you could put all your code on a single line;
- That's why the compiler needs semicolons;