

Learn C++

Variables

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Variables

A *variable* refers to a storage location in the computer's memory that one can set aside to save, retrieve, and manipulate data.

```
// Declare a variable
int score;

// Initialize a variable
score = 0;
```

Int

`int` is a type for storing integer (whole) numbers.

```
int age = 28;
```

Double

`double` is a type for storing floating point (decimal) numbers.

```
double price = 8.99;
```

Arithmetic Operators

C++ supports arithmetic operators for:

- + addition
- - subtraction
- * multiplication
- / division
- % modulo (yields the remainder)

```
int x = 0;

x = 4 + 2; // x is now 6
x = 4 - 2; // x is now 2
x = 4 * 2; // x is now 8
x = 4 / 2; // x is now 2
x = 4 % 2; // x is now 0
```

User Input

`std::cin`, which stands for “character input”, reads user input from the keyboard.

Here, the user can enter a number, press , and that number will get stored in `tip`.

```
int tip = 0;

std::cout << "Enter amount: ";
std::cin >> tip;
```

Chaining the Output

In C++, `std::cout` can output multiple values by chaining them using the output

operator `<<` .

Here, the output would be `I'm 28`.

```
int age = 28;

std::cout << "I'm " << age << ".\n";
```

Char

`char` is a type for storing individual characters. Characters are wrapped in single quotes `' '` .

```
char grade = 'A';
```

String

`std::string` is a type for storing text strings. Strings are wrapped in double quotes `" "` .

```
std::string message = "good nite";
```

Bool

`bool` is a type for storing `true` or `false` boolean values.

```
bool late_to_work = true;
```

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