C Data Types

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Data Types

As explained in the Variables chapter, a variable in C must be a specified **data type**, and you must use a **format specifier** inside the `printf()` function to display it:

Example

```
// Create variables
int myNum = 5;               // Integer (whole number)
float myFloatNum = 5.99;     // Floating point number
char myLetter = 'D';         // Character

// Print variables
printf("%d\n", myNum);
printf("%f\n", myFloatNum);
printf("%c\n", myLetter);
```

Try it Yourself »

Basic Data Types

The data type specifies the size and type of information the variable will store.

In this tutorial, we will focus on the most basic ones:

Data Type	Size	Description
`int`	2 or 4 bytes	Stores whole numbers, without decimals
`float`	4 bytes	Stores fractional numbers, containing one or more decimals. Sufficient for storing 7 decimal digits
`double`	8 bytes	Stores fractional numbers, containing one or more decimals. Sufficient for storing 15 decimal digits
`char`	1 byte	Stores a single character/letter/number, or ASCII values

Basic Format Specifiers

There are different format specifiers for each data type. Here are some of them:

Format Specifier	Data Type	Try it
`%d` or `%i`	`int`	Try it »
`%f`	`float`	Try it »
`%lf`	`double`	Try it »
`%c`	`char`	Try it »
`%s`	Used for **strings (text)**, which you will learn more about in a later chapter	Try it »

C Exercises

Test Yourself With Exercises

Exercise:

Add the correct data type for the following variables:

```
myNum = 5;
  myFloatNum = 5.99;
 myLetter = 'D';
```

Submit Answer »

Start the Exercise

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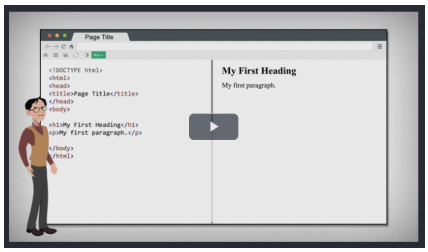

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