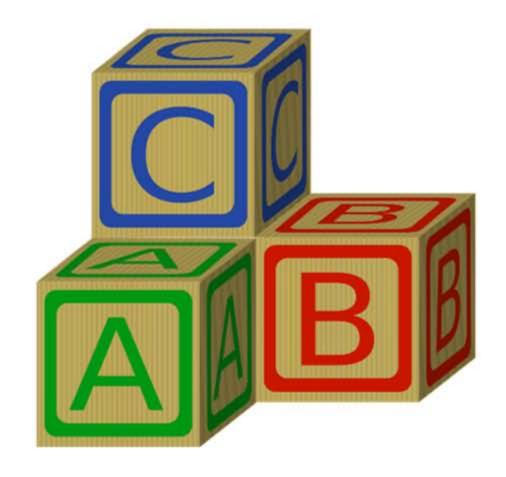# Data Types

Data Types

When you create a variable, many programming languages require you to state the type of data you want to store in it.

Different types of data require different amounts of memory and, therefore, the computer needs to know how much memory to allocate to a particular variable.
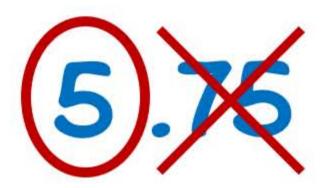
The main data types are:

| Integer | Real | Boolean | Char | String |

Integer

An integer is a whole number without a fractional part (decimal place).

5.75

Here are some examples of integers:

Age = 14   Score = 75   People = 4

Real

Real numbers (also known as floating point) can have a fractional part (decimal place).

5.75

Here are some examples of real numbers:

Temperature = 18.5   Price = 1.84   Height = 1.85

Boolean

The Boolean data type supports only two different values:
TRUE and FALSE.

These values are represented using binary.

0 = FALSE   1 = TRUE

Overdue = FALSE   Authorised = TRUE

Character

The character data type stores a single alphanumeric character.

This could be a letter, number or symbol.

Here are some examples of characters:

Gender = F   Grade = B   Initial = H

String

A string is a group of alphanumeric characters.

Strings are usually enclosed within quote marks " ".

Here are some examples of strings:

Name = "Alex"   Postcode = "N1 5BH"   City = "London"