



# Java Data Types

When we talk about storing data, Java has a set of 8 basic data types (also known as Primitive data types). They are the basic building blocks in the language for storing data. String is also a common data type in Java, but is slightly more complex because it's implemented as an Object data type to accommodate the wide variety of lengths that might be possible.

Primitive		
Type	Examples	Description
int	1 100 -234 2000127	This is a whole number. It is usually used as the default data type for integral values. Ranges from $-2^{31}$ to $2^{31}$ .
double	.123456789012345 66.66667 100000000. 0d	This can be a decimal that covers the same range as a float. It is usually used as the default data type for decimal values.  No commas. If no decimal point, must end with d.
boolean	true false	A boolean can hold the result of a comparison or decision. There are only two possible values or states.
char	'a' 'b' 'c' ' ; '	This is a single character. Must surround with single quotes.
long	0L -3333335L 12345678900000L	Is an integer but can cover a bigger range of values than int. Ranges from $-2^{63}$ to $2^{63} - 1$ . No commas or decimal point. When declaring a long, end with L.
float	1.223f -12.319f -37208.204567f	This can be a decimal. No commas. When declaring a float, end with f.
short	-31768 54321 9830	Is a whole number. Can be used to save memory as byte data type. A short is 2 times smaller than an int. Ranges from -32,768 and a maximum value of 32,767.
byte	-50 0 128	Is a whole number. Can be used to save space in large arrays, mainly in place of integers, since a byte is four times smaller than an int. Ranges from -128 to 127.
Object		
Type	Examples	Description
String	"hello" "this is a note" "1:20pm"	Holds a text string. Must surround with double quotes.

	" "	
	"Mountain View, CA"	

Content is licensed under the [Creative Commons Attribution 3.0 License](#).