

## Overview of the primitive data types of C

- C's built-in data types that are similar to ones in *Java*

Syntax	Name	Java's counterpart	use
<code>char</code>	character	<code>byte</code>	Stores an ASCII code (character) or it can also store a very short integer (−128..127)
<code>short</code>	short integer	<code>short</code>	uses 2 byte memory, value between −32768 and 32767
<code>int</code>	ordinary integer	<code>int</code>	uses 4 byte memory, value between −2147483648 and 2147483647
<code>long</code>	long integer	<code>long</code>	uses 8 bytes memory, value between −9223372036854775808 and 9223372036854775807
<code>float</code>	single precision float	<code>float</code>	uses 4 byte memory, absolute value between 1.4E−45 and 3.4E38
<code>double</code>	double precision float	<code>double</code>	uses 8 byte memory, absolute value between 4.9E−324 and 1.8E308
<code>_Bool</code>	boolean	<code>boolean</code>	true (1) or false (0)

- C's built-in data types that do **not** have an equivalent in *Java*

Syntax	Name	use
<code>unsigned char</code>	Unsigned character	Very short positive integer (0..255)
<code>unsigned short</code>	Unsigned short integer	uses 2 byte memory, value between 0 and 65535
<code>unsigned int</code>	Unsigned ordinary integer	uses 4 byte memory, value between 0 and 4294967295
<code>unsigned long</code>	Unsigned long integer	uses 8 bytes memory, value between 0 and 18446744073709551615
<code>*</code>	<i>Reference type</i>	Contains a memory address (usually 4 bytes, but 64 bits machines will use 8 bytes)

