**Java data types**

By defining different types of variables, Java can save in RAM integers, floating-point numbers, characters and boolean etc. In general Java data have two different types:

* Built-in data types
* Reference data types

**Built-in data types:**

Java offers eight basic built-in data types, of which are 6 numeric types (4 integer types and 2 floating-point types), 1 character type and 1 boolean type.

| **Type name** | **Type meaning** | **byte digits** | **default value** | **maximum value** | **minimum value** |
| --- | --- | --- | --- | --- | --- |
| byte | byte type | 8 | 0 | 127(2^7-1) | -128(-2^7) |
| short | short int type | 16 | 0 | 32767(2^15-1) | -32768(2^15) |
| int | int type | 32 | 0 | 2147483647(2^31-1) | -2147483648(2^31) |
| long | long int type | 64 | 0 | 9223372036854775807(2^63-1) | -9223372036854775807(2^63) |
| float | single-precision floating-point type | 32 | 0.0f | null | null |
| double | double-precision floating-point type | 64 | 0.0d | null | null |
| boolean | boolean type | 1 | false | true(1) | false(0) |
| char | character type | 16 | \u0000 | \uffff(65,53) | \u0000(0) |

For more details on data types, please visit [here](https://docs.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html)

**Data reference type:**

Reference type will be covered later in this course.