**UNIVERSITY OF THE ARMED FORCES ESPE **

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**JAVA:**

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| --- | --- | --- | --- |
| Primitive data types | Equivalence | Numerical values | Default value |
| byte | 8 bits | since **-128** until **127** | 0 |
| short | 16 bits | since **-32.768** a **32.767** | 0 |
| int | 32 bits | since until | 0 |
| long | 64 bits | since until | 0L |
| float | 32 bits | since | 0.0f |
| double | 64 bits | since | 0.0d |
| boolean | 1 bit | True = “ 1 “  False = “0” | False |
| char | 16 bits | any character (just one char) | ´u0000´ |

**PYTHON:** In Python you have to have certain considerations, in the table we see an approximate of the equivalences and limits, but you have to bear in mind that in the case of the integer, if the amount of the maximum number is exceeded, the id will automatically change it to a variable of greater size so that the value can fit in the variable, this also applies to floats, although having a size of 64 bits its capacity is very high, another aspect is that of Booleans that basically any variable can be considered Boolean since in Python if A variable contains whatever it is will be considered true and if it is an empty element or contains zero it will be false, in the case of characters it must be taken into account that Python works directly with character strings, although a single character can be declared.

|  |  |  |
| --- | --- | --- |
| Primitive data types | Equivalence | Numerical values |
| int | 32 bits | - 1 |
| float | 64 bits |  |
| boolean | 1 bit | True = “ 1 “  False = “0” |
| char | 1 byte | any character (just one char) |