

Primitive Data Types

After learning about variable initialization and assignment, you should be aware that data types are serious business. They can determine the success or failure of your project. Therefore, you should know them extremely well. This document should serve as a quick reference guide for the data types we will be using most often in this class. Research each of the terms below and write their definitions in the boxes below

int : Int stands for integer as it is used in defining data types that range from the values of -2^{31} through $2^{31}-1$. The size is 32 bits.

Double: Double is a certain data type used to represent numbers, usually those including decimals. 2^{-1074} through $(2-2^{-52}) \cdot 2^{1023}$. The size is 64 bits.

Boolean: This data type is used to indicate true or false values. It's size is 1 bit.

float: The float data type is similar to the double data type with the difference of the larger amount of data it can hold. The values range From $3.402,823,5 \text{ E}+38$ to $1.4 \text{ E}-45$. The size is 32 bits.

char: Char is a 16 bits in size, and can be used for all unicode characters.

short: Shorts are large storage units and are generally used for saving memory. The size is 16 bits. And the values range From $+32,767$ to $-32,768$.

long: Long is similar to short with the difference in the range of values. It can range from From +9,223,372,036,854,775,807 to -9,223,372,036,854,775,808. The size is 64 bits.