

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 : Integer, whole number without decimals, either positive or negative. 32 bit

Double: the double datatype is used to hold decimal numbers. It will hold any real number (including decimals) that you will need in this course. 64 bit. A double can hold more info than a float (max 64 bits)

Boolean: 2 values-true/false. Can be used as on/off switch

float: Numbers with decimals. 32 bit

char: is a keyword. It defines a character primitive type. char can be created from character literals and numeric representation. It stores character constants in the memory. Ex: letter, digit or punctuation mark

short: Short data type is a 16-bit signed two's complement integer. Minimum value is -32,768 (-2^{15}). Maximum value is 32,767 (inclusive) ($2^{15}-1$). First digit is the sign(+/-) the rest of the 15 digits is the value to the number.

long: Long data type is a 64-bit signed two's complement integer. First digit is the sign, the rest of the 63 indicate the value. From -2^{63} to $2^{63}-1$

