**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

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| **int : Int data type is a 32-bit signed two's complement integer; default value is 0; min value is -2^31 and max value is 2^31; ex: int a = 100, int b = 10000** |
| **Double: generally used as the default data type for decimal values, generally the default choice; should never be used for precise values such as currency; default value is 0.0d; ex: double d1 = 123.4** |
| **Boolean: represents one type of information; only 2 possible values--true and false; used for simple flags that track true/false conditions; default value is false; ex: boolean one = true** |
| **float: used to save memory in large arrays of floating point numbers; default value if 0.0f; never used for precise values such as currency; ex: float f1 = 234.5f** |
| **char: used to store any character; min value is \u0000 (or 0) and max value is \uffff (or 65,535); ex: char letterA = A** |
| **short: can be used to save memory as byte data type; default value is 0; ex: short s = 10000, short r = -20000** |
| **long: used when a wider range than int is needed; default value is 0L; ex: long a = 100000L, long b = -200000L** |