An array is a collection of elements, all of the same data type, given a single name, and stored in adjacent memory locations. The subscript (or index) must have an integral value. In most (but not all) programming languages, the first array element always has subscript 0. The second array element has subscript 1, etc. When allocated, the elements are automatically initialized to 0 for numeric primitive-data-type values, to false for boolean variables, or to null for references (non-primitive type values). Arrays make the mathematical process of searching and sorting data much easier for programmers.