**Chapter 7 Arrays**

**Programming Exercises**

**Declare and create** the following arrays. You do **not** need to initialize the arrays.

1. An array named course that will hold 5 courses.
2. An array named students that will hold 35 students. Use a **constant** for the size of this array.
3. An array named measurements that will hold doubles. Ask the size from the user.
4. An array named weights that will hold doubles. Use the input from a file named pounds.txt for the size.
5. An array named grades that will hold 150 letters.
6. An array named rating that will hold 8,745 individual letters.
7. An array named initial that will hold letters. Use a **constant** of 60 for this size.
8. An array named letters that will hold letters. Ask the size from the user.
9. An array named orders that will hold Strings. Read in the size from a file named orders.txt.

**Declare, create, and initialize** the following arrays.

1. An array named numbers that will hold 10 whole numbers entered from the keyboard.
2. An array named ages that will get the size and data from a file named ages.txt; the first number listed is the size of the array.
3. An array named numberLine that will get the size and data from a file named number.txt; the first number listed is the size of the array.
4. An array named ascii that will hold characters. Ask the size from the user. The first character will be the‘(‘ – the number 40.

Write the following methods, invoke the methods in main:

1. A method named readIn that will read in the data from the file passed to the method, initialize it in the array, and return the (initialized) array to the method.
2. A method named printIt that will print contents of the array passed to the method.
3. A method name reversePrint that will print the contents of the array passed to the method in reverse order.
4. A method named loadInts that will read in and store the integer values into an array from a file passed to the method; it returns the loaded array.
5. A method named vowelCount that will return the number of vowels stored in the array that is passed to the method.
6. A method named printEveryOther that will print every other name stored in the array passed to the method.
7. A method named findAve that will return the average of the values stored in the array passed to method.
8. A method printOdd that will only print the odd values stored in the array passed to the method.
9. A method findMax that will return the index of the largest value stored in the array passed to the method.
10. A method that theSmallest will return the value of the smallest value stored in the array passed to the method.