Practice using Arrays and Random Object

#### You will learn how to send arrays as argument, how to return arrays and how to use the Random object.

### In a single solution and a single project, code the following methods and call them from your main

Declare the following arrays in your main

string[] names = "Dean Bart Luke Olaf Tess Sara Vida Sean Rita Hana Arya Curt Eden Fred Gina West Jack Kate Zuri Dave Toni Ruth Vera Brad Theo Xena Mark Neal Nick".Split();

string[] pets = "dog cat gecko hamster chinchilla rabbit turtle snake newt hedgehog parrot buggie ferret gerbil mouse".Split();

char[] letters = "dog cat hamster rabbit parrot buggie gerbil ".ToCharArray();

Because the above variables are in local scope, you have to send them as argument to your methods.

1. Write a method that takes a string array and displays each items on a single line separated by a single space.  
   From your main method do the following:
   1. Call this method with argument “names”.
   2. Use the Array.Reverse() to reverse the names array
   3. Print the array
   4. Use the Array.Sort() to order the names array
   5. Print the array
   6. Use Array.BinarySearch() to find and print the position of “Nick”
   7. Comment the line in step d and repeat step f. Are you able to find “Nick”?
2. Write a method that takes a char array and displays each items on a single line separated by a single space.  
   From your main method do the following:
   1. Call this method with argument letters.
   2. Use the Array.Reverse() to reverse the names array
   3. Print the array
   4. Use the Array.Sort() to order the names array. Can you explain why there are so many spaces at the start of the line?
   5. Print the array
3. This question will have two parts
   1. Write a method that takes an int argument. The method uses random letters to create and return a word. The number of letter in the word is specified by the argument to the method. You will have to use a Random object to get random letters. If you find that all the outputs are the same then move the creation of the random object to a global scope.  
      From your main, call this method three times with argument 5, 7, and 10 and display the resulting word.
   2. Write a method that takes two int arguments. The method will generate and return an array of strings. The first arguments specify the number of items in the string array and the second argument specifies the number of letters making up each item. [This method will use the previous method to generate a single word.]  
      From your main, call this method with arguments 10 and 4 and print the resulting value. You may use the method in question 1 to print the returned value.