Programming 120 – Linear Search

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| Basics – 1 Point |
| Commented header information ( name, date, assignment ) |
| Part 1 – Countries and Populations – 4 Points Using the provided Countries and Population Arrays |
| Method 1: Contains – Search Countries array for a specific country, return true or false  Method 2: IndexOf – Search your arrays for a specific value, return index or -1  Method 3: RangeOf – Displays countries and population if the population is between two values  Test Result: Contains – “Uganda” = true, “Monaco” = false  Test Result: IndexOf – “Uganda” = 7, “Monaco” = -1   |  | | --- | | Moldova – 3451006  Eritrea - 3708924 |   Test Result: RangeOf – 3000000 and 4000000 – Result:   |  |  | | --- | --- | | static string[] countries =  {  "China",  "United States",  "India",  "Ethiopia",  "France",  "Moldova",  "Eritrea",  "Uganda",  "Hong Kong",  "Hungary"  }; | static int[] populations =  {  1425857090,  338916212,  1421019288,  124613966,  64678873,  3451006,  3708924,  47000000,  7488720,  10188300  }; | |
| Part 2 – Custom – 5 Points Create your own parallel arrays. Atleast 2 arrays, with atleast 5 elements each |
| Create a set of arrays: Parallel. At least 5 elements each. Your choice of content.  Method 1: Contains – Search your arrays for a specific value, return true or false  Method 2: IndexOf – Search your arrays for a specific value, return index or -1  Method 3: RangeOf – Displays a range of information from your arrays |

Commented Assignment

// Create three methods that use linear search ( you can use while, for, or foreach. Whichever is appropriate )

// Method 1:

// Contains

// Create a method that returns a bool, and takes a string ( country name ) ( optional, you can have it take an array )

// A country name is passed in as an argument. Return true if the Country name is in the array, or false if it is not

// Test Result: " Uganda" - true, "Monaco" - false

// Method 2:

// IndexOf

// Create a method that returns a int, and takes a string ( country name ) ( optional, you can have it take an array )

// A country name is passed in as an argument. Return the index if the Country name is in the array, or -1

// Test Result: " Uganda" - 7, "Monaco" - ( -1 )

// Method 3:

// Population Range

// Create a method that doesn't return anything ( void ), it will take 2 paremeters. A low value and a high value.

// Display all countries and their populations who's populations are between those values

// Test Result: low = 3000000, high = 4000000

// Result:

// Moldova - 3451006

// Eritrea - 3708924

// -------------------------------------------------

// Create 2 arrays of your own. They must have at least 5 elements.

// They can be of any type, they just have to be parallel ( have the same capacity and the elements at the same index are related )

// Create the 3 methods above, but to work with your arrays

// Ex. string[] discworldBooks = { "Thief of Time", "Night Watch", "Making Money" };

// int[] published = { 2001, 2002, 2007 }

// Method 1: Contains("Night Watch"); - True

// Method 2: IndexOf("Making Money"); - 2

// etc...

Results

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