AP Computer Science Mr Hanley

Searching and Sorting

Ver: 4.0

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Assignment 17:Searching and Sorting

Binary	Ones Comp	Twos Comp

Finish the States and Cities Skeleton

Research the following topics;

sequential search, binary search, selection sort, insertion sort, merge sort.

In the skeleton, there is a menu to finish.

1. Please do 8, Selection Sort by Name
2. Please do 9, Selection Sort by Population
3. Please do 10, Insertion Sort by Name
4. Please do 11, Insertion Sort by Population
   Test will all possible sort orders, alpha, pop ascending and pop descending

5. Please do 3, Sequential Search
   Do it by name and by population
   NEEDS TO WORK FOR UNSORTED AND SORTED LISTS!
   Example: Find all records that match the name(there can be duplicates)
   Find all records that match the population and print them in a list
   Return a SortRecord with comparisons only, there are NO swaps when searching

6. Please do 4, Binary Search Iterative
7. Please do 5, Binary Search Recursive

BONUS: Merge Sort by Name (3 points)
BONUS: Merge Sort by Pop(3 points)
BONUS: Quick Sort by Name (3 points)
BONUS: Quick Sort by Pop(3 points)
BONUS: Shell Sort by Name (3 points)
BONUS: Shell Sort by Pop(3 points)
BONUS: Heap Sort by Name (3 points)
BONUS: Heap Sort by Pop(3 points)

Project Name	SearchAndSortStatesSkeleton
Class 1 Name	**Territory_Console_Main**
Class 2 Name	**Territory_Manager**

RUBRIC	
Selection Sort by Name	10
Selection Sort by Pop	10
Insertion Sort by Name	10
Insertion Sort by Pop	10
Sequential Search	10
Binary Search Iterative	10
Binary Search Recursive	10
Comments	10
TOTAL	70

Artificial_Intelligence
Dynamic_Memory
Waterfall_Model
Nested_Loops Stacks
Circuit_Evaluation
Short_
Extreme_Programming
Client_Server
Hong_Kong_Fooey
Insertion_Sort
VideoInheritance
Binary_Search
Files
Linear_Search
String_Games
Recursion_nlogn
File_Processing
Arrays
Selection_Sort
Big_O_Notation
2D_Arrays
Hangman
ArrayList