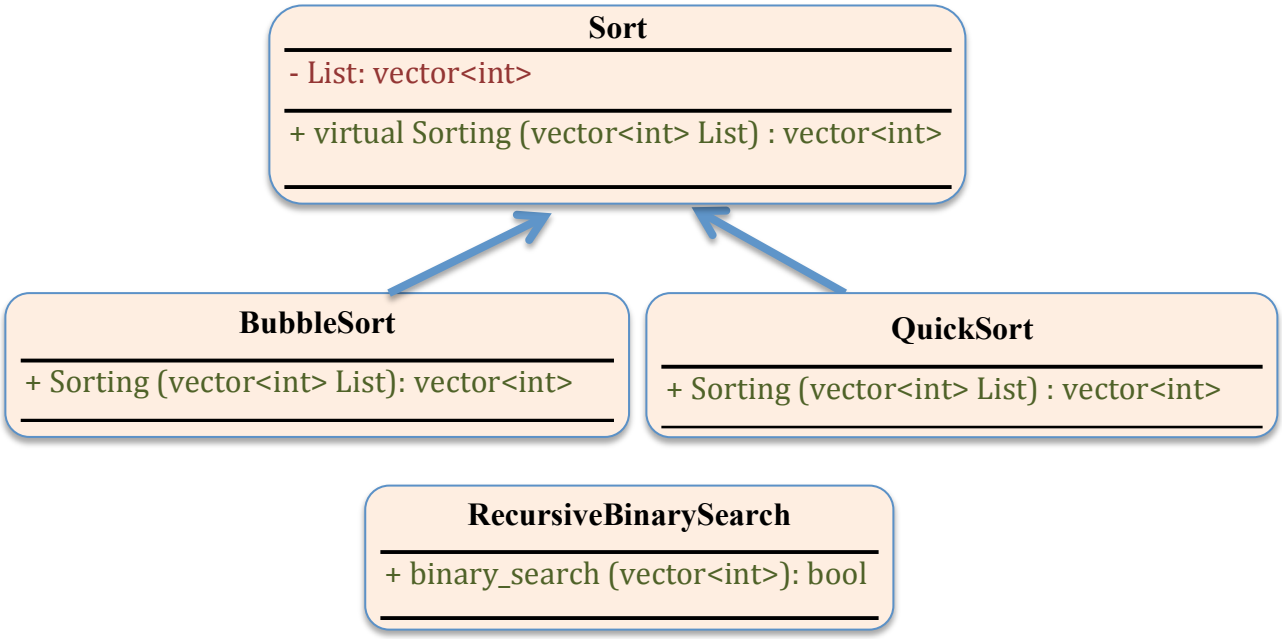
ADDS - Practical 8: Sorting and Searching

Diana Guevara
ID 1711891

1. DIAGRAM OF CENTRAL CLASSES:



2. EXPLANATION OF CORE FUNCTION:

BubbleSort:

Sorting (vector<int> List):

Take a list of intergers and using the bubble sort algorithm return the list sort in ascending order.

QuickSort:

Sorting (vector<int> List):

Take a list of intergers and using the quick sort algorithm return the list sort in ascending order.

RecursiveBinarySearch:

binary_search (vector<int>): bool:

Take a list of intergers and using the binary search algorithm return true if 6 is in the list.

Main:

The main function will call the sorting function with B for bubble sort or Q for quick sort classes and sorting the list in ascending order and. Then it will call binary_search and return true if 6 is in the list. And finally it will print the boolean and then the list sorting.

3. TESTING: Following is a description of the test cases that will be used to test my program.

Given input	Rationale	I expect output
B 1 3 5 4 -5 100 7777 2014	Test the example input giving in the practical.	**false -5 1 3 4 5 100 2014 7777**
Q 0 3 6 4 -5 100 7777 2014	Test the second example input giving in the practical.	**true -5 0 3 4 6 100 2014 7777**