

COMP 1123 Lab 3

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Lab Work

Assume that you have a student list of this class which list consists of only student names. Your task is sorting the given list by dictionary order, sorting operation must be realized using the **bubble sort algorithm**. Additionally, this list implementation should be written using a **two-dimensional char array**.

Bubble Sort Algorithm

```
1  function swap(a, b)
2      // Fill own your own!
3  end function
4
5  function compare(a, b)
6      // Compare function should be implemented
7      // to realize the sorting criteria.
8      // For example, elements in a are strings and
9      // they are to be sorted in dictionary order.
10     // strcmp function can be used in place
11     // of compare function.
12 end function
13
14 function bubble_sort(a, n)
15     while n != 0
16         high = 0
17         for i=0 to n-2 incremented by 1
18             if compare(a[i], a[i+1]) > 0 then
19                 swap(a[i], a[i+1])
20                 high = i+1
21             end if
22         end for
23         n = high
24     end while
25 end function
```