

## VAT report

<b>Submission deadline:</b>	<b>2022-04-03 23:59:59</b>
<b>Late submission with malus:</b>	<b>2022-05-15 23:59:59</b> (Late submission malus: 100.0000 %)
<b>Evaluation:</b>	<b>5.0000</b>
<b>Max. assessment:</b>	<b>5.0000</b> (Without bonus points)
<b>Submissions:</b>	21 / 20 Free retries + 20 Penalized retries (-2 % penalty each retry)
<b>Advices:</b>	2 / 2 Advices for free + 2 Advices with a penalty (-10 % penalty each advice)

Your task is to implement class `CVATRegister`, which implements a simple tax revenue database.

We assume the database holds information about all companies that are obligated to pay the VAT. To reduce tax evasion, a company is obligated to report all invoices in the database. Each company is identified by its tax ID. The IDs are strings and are unique in the database. Second, companies may be positively identified by their names and addresses. We assume the pair (name, address) is unique in the database. That is, there may exist several companies with the same name (e.g. "ACME"), there may be many companies registered with the same address (e.g. "Prague"), however, there may be at most one company "ACME" registered in "Prague". Moreover, tax IDs are compared **case sensitive**, whereas names and addresses are compared case **insensitive**.

The class shall implement public interface shown below. The interface consists of:

- A constructor (without parameters). This constructor initializes a new empty database.
- Destructor -- it shall free all resources used by the instance.
- Method `newCompany (name, addr, id)` which adds a new record to the database. The parameters are name, address and tax id of the company being registered. The method returns `true` if it succeeds, or `false` if it fails (the pair name, addr is already present in the database, or the id is not unique in the database).
- Method `cancelCompany (name, addr) / cancelCompany (id)` removes the corresponding record from the database, the record is identified either by the name and address, or by its tax id. The method returns `true` if it succeeds, or `false` if it fails (the corresponding record was not present).
- Methods `invoice (name, addr, amount) / invoice (id, amount)` add amount to the income of some company. There are two variants of the method: the company is either identified directly by tax id, or by company name and address. The methods return `true` if they succeed, or `false` if they fail (the corresponding record was not found).
- Method `audit (name, addr, sum) / audit (id, sum)` searches the database for the record identified by name and address, or by tax id. The method fills the output parameter (sum) with the total revenue of the particular company. The method returns `true` if it succeeds, or `false` if it fails (the corresponding record was not found). Moreover, if the method fails, the output parameters shall be left unmodified.
- Method `medianInvoice ()` searches for the median amount in the registered invoices. Only positively registered invoices are included in the computation, i.e. failed invocations of `invoice` do not participate in the median. On the other hand, all so-far registered invoices participate in the median computation (including invoices from erased companies). If the number of invoices is even, the result will be the greater of the two middle values. If there are no invoices registered yet, the result is zero.
- Methods `firstCompany (name, addr) / nextCompany (name, addr)` are used to iterate over the list of companies in our database. The companies are returned in an alphabetical order, sorted by company name. If some companies have the same name, then the company with lexicographically smaller address goes first. Method `firstCompany` finds the first company in the list. If the list of companies is empty, the method returns `false`. Otherwise, the method returns `true` and fills-in output parameters name and addr. Method `nextCompany` is similar; it finds the company that follows company identified by name and addr from the parameters. If there is not any further company in the list, then `nextCompany` returns `false`. Otherwise it returns `true` and updates the parameters name and addr with the name/address of the next company.

Submit a source file with your `CVATRegister` implementation. The class must follow the public interface below. If there is a mismatch in the interface, the compilation will fail. You may extend the interface and add you auxiliary methods and member variables (both public and private, although private are preferred). The submitted file must include both declarations as well as implementation of the class (the methods may be implemented inline but do not have to). The submitted file shall not contain anything except the class `CVATRegister`. In particular, if the file contains `main`, your tests, or any `#include` definitions, please, keep them in a conditional compile block. Use the attached source as a basis for your implementation. If the preprocessor definitions are preserved, the file maybe submitted to Progtest.

The class is tested in a limited environment -- both memory and running time is limited. The available memory is big enough to store the records. The class does not have to implement a copy constructor or an overloaded operator `=`. This functionality is not tested in this homework.

Your implementation must be both time and space efficient. A simple linear-time solution will not succeed (it takes more than 5 minutes for the test data). You may assume `newCompany` and `cancelCompany` calls are rare compared to the other methods. Thus these two methods may run in linear time. Methods `invoice` and `audit` are called very often, thus they must be very efficient (e.g. logarithmic time or amortized constant time). Finally, `medianInvoice` is not called often in the mandatory tests. Thus the implementation does not have to be very efficient (linear or  $n \log n$  is fine to pass the mandatory tests), however, much better time complexity is required to pass the bonus test.

Either STL container or dynamic array allocation is required to implement the database. If implemented using the dynamically allocated array, set the initial size of the array to some small value (e.g. one hundred elements). When the array is full, do not increase the size by just one element. The overhead of the resizing would be enormous. Instead, increase the size by e.g. a thousand elements or use a quotient ranging from 1.5 to 2 (better solution).

If STL is used, your implementation does not have to care about the allocation. Caution: only some STL containers are available (see the headers included in the attached source). In particular, `map / unordered_map / set / unordered_set / ...` are disabled in this homework.

The attached source file lists some basic tests. The tests are quite short, you have to add your own tests. Please note that the tests included in the submitted files are recognized as an integral part of your solution. Thus someone else's tests included in your solution are just another form of cribbing.

### Notes:

- Code review: a solution of this assignment may be used for code review if assessed 100% in all all mandatory and optinal tests (i.e., your solution does not have to pass the last bonus test). However, this assignment is not very difficult, the code is somewhat short and simple. Therefore, code review of this homework will be more rigorous.

### Sample data:

[Download](#)


### Reference

- **Evaluator: computer**
  - Program compiled
  - Test 'Zakladni test s parametry podle ukazky': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.000 s (limit: 10.000 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Test nahodnymi vstupy (Add, Search)': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.012 s (limit: 10.000 s)
    - Mandatory test success, evaluation: 100.00 %

- Test 'Test nahodnymi vstupy (Add, Del, Search)': success
  - result: 100.00 %, required: 100.00 %
  - Total run time: 0.009 s (limit: 9.988 s)
  - Mandatory test success, evaluation: 100.00 %
- Test 'Test meznich hodnot': success
  - result: 100.00 %, required: 100.00 %
  - Total run time: 0.016 s (limit: 9.979 s)
  - Mandatory test success, evaluation: 100.00 %
- Test 'Test rychlosti (nahodne hodnoty)': success
  - result: 100.00 %, required: 50.00 %
  - Total run time: 0.968 s (limit: 9.963 s)
  - Mandatory test success, evaluation: 100.00 %
- Test 'Test nahodnymi hodnotami + mem debugger': success
  - result: 100.00 %, required: 25.00 %
  - Total run time: 0.035 s (limit: 5.000 s)
  - Optional test success, evaluation: 100.00 %
- Test 'Test rychlosti (nahodna jmena, fixni adresa)': success
  - result: 100.00 %, required: 75.00 %
  - Total run time: 0.540 s (limit: 15.000 s)
  - Optional test success, evaluation: 100.00 %
- Test 'Test rychlosti (fixni jmena, nahodna adresa)': success
  - result: 100.00 %, required: 75.00 %
  - Total run time: 0.513 s (limit: 14.460 s)
  - Optional test success, evaluation: 100.00 %
- Test 'Test rychlosti (median)': success
  - result: 100.00 %, required: 100.00 %
  - Total run time: 1.714 s (limit: 5.000 s)
  - Bonus test - success, evaluation: 120.00 %
- Overall ratio: 120.00 % (= 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.20)
- Total percent: 120.00 %
- Early submission bonus: 0.50
- Total points: 1.20 \* ( 5.00 + 0.50 ) = 6.60

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2022-04-22 16:50:18

Download

Submission status:Evaluated

Evaluation:0.0000

- **Evaluator: computer**
  - Program compiled
  - Test 'Basic test with sample input data': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.000 s (limit: 10.000 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Random test (Add, Search)': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.049 s (limit: 10.000 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Random test (Add, Del, Search)': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.033 s (limit: 9.951 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Borderline test': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.064 s (limit: 9.918 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Speed test (nahodne hodnoty)': success
    - result: 100.00 %, required: 50.00 %
    - Total run time: 2.146 s (limit: 9.854 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Random test + mem debugger': success
    - result: 100.00 %, required: 25.00 %
    - Total run time: 0.044 s (limit: 5.000 s)
    - Optional test success, evaluation: 100.00 %
  - Test 'Speed test (random names, fixed address)': success
    - result: 100.00 %, required: 75.00 %
    - Total run time: 1.954 s (limit: 15.000 s)
    - Optional test success, evaluation: 100.00 %
  - Test 'Speed test (fixed names, random address)': success
    - result: 100.00 %, required: 75.00 %
    - Total run time: 1.711 s (limit: 13.046 s)
    - Optional test success, evaluation: 100.00 %
  - Test 'Speed test (median)': Abnormal program termination (Time limit exceeded)
    - Cumulative test time exceeded, killed after:: 5.008 s (limit: 5.000 s)
    - Bonus test - failed, evaluation: No bonus awarded
  - Overall ratio: 100.00 % (= 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00)
- Advices used: 1
- Penalty due to advices: None (1 <= 2 limit)
- Retries penalty: 2.00 % (= (21 - 20) \* 2 %)
- Total percent: 98.00 % (= 1.00 \* 0.98)
- Late submission malus: 5.00
- Total points: 0.98 \* ( 5.00 - 5.00 ) = 0.00

2022-03-26 18:21:30

Download

Submission status: Evaluated

Evaluation: 5.0000

• Evaluator: computer

◦ Program compiled

◦ Test 'Basic test with sample input data': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.000 s (limit: 10.000 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Random test (Add, Search)': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.041 s (limit: 10.000 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Random test (Add, Del, Search)': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.028 s (limit: 9.959 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Borderline test': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.056 s (limit: 9.931 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Speed test (nahodne hodnoty)': success

▪ result: 100.00 %, required: 50.00 %

▪ Total run time: 2.052 s (limit: 9.875 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Random test + mem debugger': success

▪ result: 100.00 %, required: 25.00 %

▪ Total run time: 0.043 s (limit: 5.000 s)

▪ Optional test success, evaluation: 100.00 %

◦ Test 'Speed test (random names, fixed address)': success

▪ result: 100.00 %, required: 75.00 %

▪ Total run time: 1.918 s (limit: 15.000 s)

▪ Optional test success, evaluation: 100.00 %

◦ Test 'Speed test (fixed names, random address)': success

▪ result: 100.00 %, required: 75.00 %

▪ Total run time: 1.724 s (limit: 13.082 s)

▪ Optional test success, evaluation: 100.00 %

◦ Test 'Speed test (median)': Abnormal program termination (Time limit exceeded)

▪ Cumulative test time exceeded, killed after:: 5.005 s (limit: 5.000 s)

▪ Bonus test - failed, evaluation: No bonus awarded

◦ Overall ratio: 100.00 % (= 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00)

• Advices used: 1

• Penalty due to advices: None (1 <= 2 limit)

• Total percent: 100.00 %

• Total points: 1.00 \* 5.00 = 5.00

SW metrics:

Functions:

15

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Lines of code:

227

15.13 ± 16.91

76

main

Cyclomatic complexity:

82

5.47 ± 3.05

11

main

19	2022-03-23 15:36:41	Download
Submission status:	Evaluated	
Evaluation:	4.5000	
<div><div>• Evaluator: computer</div><div><div>◦ <input checked="" type="checkbox"/> Compile in 'pedantic' mode failed (10 % penalty).</div><div><div>In file included from testbed.cpp:28: testbed:32:11: error: 'pos' initialized and declared 'extern' [-Werror] 32   extern UI pos = 1; // &lt;- Important tool that makes firstCompany and nextCompany work in O(1) DO NOT MODIFY IT!   ^~~ cclplus: all warnings being treated as errors</div></div></div></div>		
<div><div>◦ Test 'Basic test with sample input data': success<div><div>▪ result: 100.00 %, required: 100.00 %</div><div>▪ Total run time: 0.000 s (limit: 10.000 s)</div><div>▪ Mandatory test success, evaluation: 100.00 %</div></div></div><div>◦ Test 'Random test (Add, Search)': success<div><div>▪ result: 100.00 %, required: 100.00 %</div><div>▪ Total run time: 0.034 s (limit: 10.000 s)</div><div>▪ Mandatory test success, evaluation: 100.00 %</div></div></div><div>◦ Test 'Random test (Add, Del, Search)': success<div><div>▪ result: 100.00 %, required: 100.00 %</div><div>▪ Total run time: 0.026 s (limit: 9.966 s)</div><div>▪ Mandatory test success, evaluation: 100.00 %</div></div></div><div>◦ Test 'Borderline test': success<div><div>▪ result: 100.00 %, required: 100.00 %</div><div>▪ Total run time: 0.049 s (limit: 9.940 s)</div><div>▪ Mandatory test success, evaluation: 100.00 %</div></div></div><div>◦ Test 'Speed test (nahodne hodnoty)': success<div><div>▪ result: 100.00 %, required: 50.00 %</div><div>▪ Total run time: 2.024 s (limit: 9.891 s)</div><div>▪ Mandatory test success, evaluation: 100.00 %</div></div></div><div>◦ Test 'Random test + mem debugger': success<div><div>▪ result: 100.00 %, required: 25.00 %</div><div>▪ Total run time: 0.019 s (limit: 5.000 s)</div><div>▪ Optional test success, evaluation: 100.00 %</div></div></div><div>◦ Test 'Speed test (random names, fixed address)': success</div></div>		

- result: 100.00 %, required: 75.00 %
- Total run time: 1.682 s (limit: 15.000 s)
- Optional test success, evaluation: 100.00 %
- Test 'Speed test (fixed names, random address)': success
  - result: 100.00 %, required: 75.00 %
  - Total run time: 1.710 s (limit: 13.318 s)
  - Optional test success, evaluation: 100.00 %
- Test 'Speed test (median)': Abnormal program termination (Time limit exceeded)
  - Cumulative test time exceeded, killed after:: 5.007 s (limit: 5.000 s)
  - Bonus test - failed, evaluation: No bonus awarded
- Overall ratio: 90.00 % (= (1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00) \* 0.9)

- Advices used: 1
- Penalty due to advices: None (1 <= 2 limit)
- Total percent: 90.00 %
- Total points: 0.90 \* 5.00 = 4.50

18

2022-03-23 14:35:40

Download

Submission status:Evaluated

Evaluation:5.0000

• Evaluator: computer

◦ Program compiled

◦ Test 'Basic test with sample input data': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.000 s (limit: 10.000 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Random test (Add, Search)': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.038 s (limit: 10.000 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Random test (Add, Del, Search)': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.027 s (limit: 9.962 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Borderline test': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.043 s (limit: 9.935 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Speed test (nahodne hodnoty)': success

▪ result: 100.00 %, required: 50.00 %

▪ Total run time: 2.089 s (limit: 9.892 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Random test + mem debugger': success

▪ result: 100.00 %, required: 25.00 %

▪ Total run time: 0.042 s (limit: 5.000 s)

▪ Optional test success, evaluation: 100.00 %

◦ Test 'Speed test (random names, fixed address)': success

▪ result: 100.00 %, required: 75.00 %

▪ Total run time: 1.877 s (limit: 15.000 s)

▪ Optional test success, evaluation: 100.00 %

◦ Test 'Speed test (fixed names, random address)': success

▪ result: 100.00 %, required: 75.00 %

▪ Total run time: 1.853 s (limit: 13.123 s)

▪ Optional test success, evaluation: 100.00 %

◦ Test 'Speed test (median)': Abnormal program termination (Time limit exceeded)

▪ Cumulative test time exceeded, killed after.: 5.006 s (limit: 5.000 s)

▪ Bonus test - failed, evaluation: No bonus awarded

◦ Overall ratio: 100.00 % (= 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00 \* 1.00)

• Advices used: 1

• Penalty due to advices: None (1 <= 2 limit)

• Total percent: 100.00 %

• Total points: 1.00 \* 5.00 = 5.00

SW metrics:

Functions:

15

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Lines of code:

230

15.33 ± 16.98

76

main

Cyclomatic complexity:

82

5.47 ± 3.05

11

main

17

2022-03-23 14:34:16

Download

Submission status:

Evaluated

Evaluation:

0.0000

Evaluator: computer

Program compiled

Test 'Basic test with sample input data': success

result: 100.00 %, required: 100.00 %

Total run time: 0.000 s (limit: 10.000 s)

Mandatory test success, evaluation: 100.00 %

Test 'Random test (Add, Search)': Abnormal program termination (Time limit exceeded)

Cumulative test time exceeded, killed after:: 10.006 s (limit: 10.000 s)

Mandatory test failed, evaluation: 0.00 %

Overall ratio: 0.00 % (= 1.00 \* 0.00)

Advices used: 1

Penalty due to advices: None (1 <= 2 limit)

- Total percent: 0.00 %
- Total points: 0.00 \* 5.00 = 0.00

		Total	Average	Maximum	Function name
SW metrics:	Functions:	15	--	--	--
	Lines of code:	230	15.33 ± 16.98	76	main
	Cyclomatic complexity:	82	5.47 ± 3.05	11	main

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Submission status:Evaluated

Evaluation:0.0000

- **Evaluator: computer**
  - Program compiled
  - Test 'Basic test with sample input data': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.000 s (limit: 10.000 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Random test (Add, Search)': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.048 s (limit: 10.000 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Random test (Add, Del, Search)': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.032 s (limit: 9.952 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Borderline test': success
    - result: 100.00 %, required: 100.00 %
    - Total run time: 0.060 s (limit: 9.920 s)
    - Mandatory test success, evaluation: 100.00 %
  - Test 'Speed test (nahodne hodnoty)': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)
    - Total run time: 1.895 s (limit: 9.860 s)
    - Mandatory test failed, evaluation: 0.00 %
  - Overall ratio: 0.00 % (= 1.00 \* 1.00 \* 1.00 \* 1.00 \* 0.00)
- Advices used: 1
- Penalty due to advices: None (1 <= 2 limit)
- Total percent: 0.00 %
- Total points: 0.00 \* 5.00 = 0.00

	Total	Average	Maximum	Function name
Functions:	15	--	--	--
Lines of code:	234	15.60 ± 17.00	76	main
Cyclomatic complexity:	81	5.40 ± 3.03	11	main

15

2022-03-23 14:07:04

Download

Submission status:

Evaluated

Evaluation:

0.0000

• Evaluator: computer

◦ Program compiled

◦ Test 'Basic test with sample input data': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.000 s (limit: 10.000 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Random test (Add, Search)': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.053 s (limit: 10.000 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Random test (Add, Del, Search)': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.034 s (limit: 9.947 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Borderline test': success

▪ result: 100.00 %, required: 100.00 %

▪ Total run time: 0.063 s (limit: 9.913 s)

▪ Mandatory test success, evaluation: 100.00 %

◦ Test 'Speed test (nahodne hodnoty)': Abnormal program termination (Time limit exceeded)

▪ Cumulative test time exceeded, killed after.: 9.855 s (limit: 9.850 s)

▪ Mandatory test failed, evaluation: 0.00 %

◦ Overall ratio: 0.00 % (= 1.00 \* 1.00 \* 1.00 \* 1.00 \* 0.00)

• Advices used: 1

• Penalty due to advices: None (1 <= 2 limit)

• Total percent: 0.00 %

• Total points: 0.00 \* 5.00 = 0.00

SW metrics:

Functions:

15

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Lines of code:

217

14.47 ± 17.05

76

main

Cyclomatic complexity:

74

4.93 ± 2.77

11

main

14	2022-03-22 18:19:48	Download
Submission status:	Evaluated	
Evaluation:	0.0000	
<ul style="list-style-type: none"><li>• <b>Evaluator: computer</b></li></ul>		

<ul style="list-style-type: none"><li>◦ Program compiled</li><li>◦ Test 'Basic test with sample input data': success<ul style="list-style-type: none"><li>▪ result: 100.00 %, required: 100.00 %</li><li>▪ Total run time: 0.000 s (limit: 10.000 s)</li><li>▪ Mandatory test success, evaluation: 100.00 %</li></ul></li><li>◦ Test 'Random test (Add, Search)': failed<ul style="list-style-type: none"><li>▪ result: 99.97 %, required: 100.00 %</li><li>▪ Total run time: 0.059 s (limit: 10.000 s)</li><li>▪ Mandatory test failed, evaluation: 0.00 %</li><li>▪ Failed (invalid output) <b>[Unlock advice (42 B)]</b></li></ul></li><li>◦ Overall ratio: 0.00 % (= 1.00 * 0.00)</li><li>• Advices used: 1</li><li>• Penalty due to advices: None (1 &lt;= 2 limit)</li><li>• Total percent: 0.00 %</li><li>• Total points: 0.00 * 5.00 = 0.00</li></ul>					
SW metrics:		Total	Average	Maximum	Function name
	Functions:	15	--	--	--
	Lines of code:	226	15.07 ± 18.96	84	main
	Cyclomatic complexity:	82	5.47 ± 4.26	19	main

132022-03-22 17:53:01Download

Submission status:Evaluated

Evaluation:0.0000

Evaluator: computer

Program compiled

Test 'Basic test with sample input data': success

result: 100.00 %, required: 100.00 %

Total run time: 0.000 s (limit: 10.000 s)

Mandatory test success, evaluation: 100.00 %

Test 'Random test (Add, Search)': failed

result: 99.97 %, required: 100.00 %

Total run time: 0.054 s (limit: 10.000 s)

Mandatory test failed, evaluation: 0.00 %

Failed (invalid output)

firstCompany / nextCompany: name mismatch

Overall ratio: 0.00 % (= 1.00 \* 0.00)

Total percent: 0.00 %

Total points: 0.00 \* 5.00 = 0.00

SW metrics:

Functions:

15

--

--

--

Lines of code:

218

14.53 ± 17.02

76

main

Cyclomatic complexity:

74

4.93 ± 2.77

11

main

12	2022-03-22 17:07:24	<a href="#">Download</a>			
Submission status:		Evaluated			
Evaluation:		0.0000			
<div><div>• Evaluator: computer<ul style="list-style-type: none"><li>◦ Program compiled<ul style="list-style-type: none"><li>◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)<ul style="list-style-type: none"><li>▪ Total run time: 0.007 s (limit: 10.000 s)</li><li>▪ Mandatory test failed, evaluation: 0.00 %</li></ul></li><li>◦ Overall ratio: 0.00 %</li></ul></li><li>• Total percent: 0.00 %</li><li>• Total points: 0.00 * 5.00 = 0.00</li></ul></div></div>					
SW metrics:		Total	Average	Maximum	Function name
	Functions:	15	--	--	--
	Lines of code:	218	14.53 ± 17.02	76	main
	Cyclomatic complexity:	74	4.93 ± 2.77	11	main

11	2022-03-22 14:36:25	<a href="#">Download</a>			
Submission status:		Evaluated			
Evaluation:		0.0000			
<div><div>• Evaluator: computer</div><div><div>◦ Program compiled</div><div>◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)<div><div>▪ Total run time: 0.006 s (limit: 10.000 s)</div><div>▪ Mandatory test failed, evaluation: 0.00 %</div></div></div><div>◦ Overall ratio: 0.00 %</div></div><div>• Total percent: 0.00 %</div><div>• Total points: 0.00 * 5.00 = 0.00</div></div>					
SW metrics:		Total	Average	Maximum	Function name
	Functions:	15	--	--	--
	Lines of code:	218	14.53 ± 17.02	76	main
	Cyclomatic complexity:	74	4.93 ± 2.77	11	main



10		2022-03-22 14:28:57			<a href="#">Download</a>	
Submission status:		Evaluated				
Evaluation:		0.0000				
<div><div>• Evaluator: computer<ul style="list-style-type: none"><li>◦ Program compiled</li><li>◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)<ul style="list-style-type: none"><li>▪ Total run time: 0.006 s (limit: 10.000 s)</li><li>▪ Mandatory test failed, evaluation: 0.00 %</li></ul></li><li>◦ Overall ratio: 0.00 %</li></ul></div><div>• Total percent: 0.00 %</div><div>• Total points: 0.00 * 5.00 = 0.00</div></div>						
SW metrics:			Total	Average	Maximum	Function name
		Functions:	15	--	--	--
		Lines of code:	217	14.47 ± 17.00	76	main
		Cyclomatic complexity:	74	4.93 ± 2.77	11	main

9		2022-03-22 14:17:08				<a href="#">Download</a>	
Submission status:		Evaluated					
Evaluation:		0.0000					
<div><div>• Evaluator: computer<ul style="list-style-type: none"><li>◦ Program compiled</li><li>◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)<ul style="list-style-type: none"><li>▪ Total run time: 0.006 s (limit: 10.000 s)</li><li>▪ Mandatory test failed, evaluation: 0.00 %</li></ul></li><li>◦ Overall ratio: 0.00 %</li></ul></div><div>• Total percent: 0.00 %</div><div>• Total points: 0.00 * 5.00 = 0.00</div></div>							
SW metrics:			Total	Average	Maximum	Function name	
		Functions:	15	--	--	--	
		Lines of code:	217	14.47 ± 17.00	76	main	
		Cyclomatic complexity:	74	4.93 ± 2.77	11	main	

8		2022-03-22 14:13:43				<a href="#">Download</a>	
Submission status:		Evaluated					
Evaluation:		0.0000					
<div><div>• Evaluator: computer<ul style="list-style-type: none"><li>◦ Program compiled</li><li>◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)<ul style="list-style-type: none"><li>▪ Total run time: 0.006 s (limit: 10.000 s)</li><li>▪ Mandatory test failed, evaluation: 0.00 %</li></ul></li><li>◦ Overall ratio: 0.00 %</li></ul></div><div>• Total percent: 0.00 %</div><div>• Total points: 0.00 * 5.00 = 0.00</div></div>							
SW metrics:			Total	Average	Maximum	Function name	
		Functions:	15	--	--	--	
		Lines of code:	217	14.47 ± 17.00	76	main	
		Cyclomatic complexity:	74	4.93 ± 2.77	11	main	

7	2022-03-19 12:37:48	<a href="#">Download</a>			
Submission status:		Evaluated			
Evaluation:		0.0000			
<div><div>• Evaluator: computer<ul style="list-style-type: none"><li>◦ Program compiled</li><li>◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)<ul style="list-style-type: none"><li>▪ Total run time: 0.007 s (limit: 10.000 s)</li><li>▪ Mandatory test failed, evaluation: 0.00 %</li></ul></li><li>◦ Overall ratio: 0.00 %</li></ul></div><div>• Total percent: 0.00 %</div><div>• Early submission bonus: 0.50</div><div>• Total points: 0.00 * ( 5.00 + 0.50 ) = 0.00</div></div>					
SW metrics:		Total	Average	Maximum	Function name
	Functions:	20	--	-- --	
	Lines of code:	238	11.90 ± 15.61	76	main
	Cyclomatic complexity:	89	4.45 ± 2.84	11	CVATRegister::newCompany

6		2022-03-19 12:14:25		<a href="#">Download</a>	
Submission status:		Evaluated			
Evaluation:		0.0000			
		<ul style="list-style-type: none"><li>• Evaluator: computer<ul style="list-style-type: none"><li>◦ Program compiled</li></ul></li></ul>			

<ul style="list-style-type: none"><li>◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)<ul style="list-style-type: none"><li>▪ Total run time: 0.007 s (limit: 10.000 s)</li><li>▪ Mandatory test failed, evaluation: 0.00 %</li></ul></li><li>◦ Overall ratio: 0.00 %</li><li>• Total percent: 0.00 %</li><li>• Early submission bonus: 0.50</li><li>• Total points: 0.00 * ( 5.00 + 0.50 ) = 0.00</li></ul>					
SW metrics:		Total	Average	Maximum	Function name
	Functions:	20	--	-- --	
	Lines of code:	238	11.90 ± 15.61	76	main
	Cyclomatic complexity:	89	4.45 ± 2.84	11	CVATRegister::newCompany

5	2022-03-19 12:10:57	<a href="#">Download</a>
Submission status:	Evaluated	
Evaluation:	0.0000	
<div><ul style="list-style-type: none"><li>• <b>Evaluator: computer</b><ul style="list-style-type: none"><li>◦ Compile in 'basic' mode failed. <b>[Unlock advice (2069 B)]</b></li></ul></li><li>• Total percent: 0.00 %</li><li>• Early submission bonus: 0.50</li><li>• Total points: <math>0.00 * ( 5.00 + 0.50 ) = 0.00</math></li></ul></div>		

4

2022-03-19 04:32:53

Download

Submission status:

Evaluated

Evaluation:

0.0000

• Evaluator: computer

◦ Program compiled

◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)

▪ Total run time: 0.006 s (limit: 10.000 s)

▪ Mandatory test failed, evaluation: 0.00 %

◦ Overall ratio: 0.00 %

• Total percent: 0.00 %

• Early submission bonus: 0.50

• Total points: 0.00 \* ( 5.00 + 0.50 ) = 0.00

SW metrics:

Total

Average

Maximum

Function name

Functions:

20

--

-- --

Lines of code:

238

11.90 ± 15.61

76

main

Cyclomatic complexity:

89

4.45 ± 2.84

11

CVATRegister::newCompany

3

2022-03-19 04:27:28

Download

Submission status:

Evaluated

Evaluation:

0.0000

• Evaluator: computer

◦ Program compiled

◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)

▪ Total run time: 0.007 s (limit: 10.000 s)

▪ Mandatory test failed, evaluation: 0.00 %

◦ Overall ratio: 0.00 %

• Total percent: 0.00 %

• Early submission bonus: 0.50

• Total points: 0.00 \* ( 5.00 + 0.50 ) = 0.00

SW metrics:

Total

Average

Maximum

Function name

Functions:

20

--

-- --

Lines of code:

240

12.00 ± 16.02

78

main

Cyclomatic complexity:

89

4.45 ± 2.84

11

CVATRegister::newCompany

2

2022-03-19 03:04:14

Download

Submission status:

Evaluated

Evaluation:

0.0000

• Evaluator: computer

◦ Program compiled

◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)

▪ Total run time: 0.007 s (limit: 10.000 s)

▪ Mandatory test failed, evaluation: 0.00 %

◦ Overall ratio: 0.00 %

• Total percent: 0.00 %

• Early submission bonus: 0.50

• Total points: 0.00 \* ( 5.00 + 0.50 ) = 0.00

SW metrics:

Functions:

20

--

-- --

Lines of code:

234

11.70 ± 15.89

78

main

Cyclomatic complexity:

87

4.35 ± 2.73

11

main



1

2022-03-19 03:01:39

Download

Submission status:

Evaluated

Evaluation:

0.0000

• Evaluator: computer

◦ Compile in 'pedantic' mode failed (10 % penalty). [Unlock advice (1609 B)]

◦ Test 'Basic test with sample input data': Abnormal program termination (Segmentation fault/Bus error/Memory limit exceeded/Stack limit exceeded)

▪ Total run time: 0.007 s (limit: 10.000 s)

▪ Mandatory test failed, evaluation: 0.00 %

◦ Overall ratio: 0.00 %

• Total percent: 0.00 %

• Early submission bonus: 0.50

• Total points: 0.00 \* ( 5.00 + 0.50 ) = 0.00

SW metrics:

Functions:

20

--

--

Lines of code:

234

11.70 ± 15.89

78

main

Cyclomatic complexity:

87

4.35 ± 2.73

11

main