

# HackerRank -> All Domains -> Data Structures -> Trie -> Contacts

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<b>Due</b>	Monday by 6pm	<b>Points</b>	100	<b>Submitting</b>	a file upload	<b>File Types</b>	zip
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Submit the source code and test cases for your solution to HackerRank -> All Domains -> Data Structures -> Trie -> Contacts

- Source code must be in a file called **contacts.c**.
- Use the makefile provided in Canvas for single-source C projects.
- Source code must be commented. (In a real contest we don't have time to comment, but we want to learn techniques in this course that we revisit and reuse.)
- Test cases should be written in a file called **testcases.txt**. Make sure they are meaningful and test a wide range of inputs. You must submit 10 test cases.

You **must** use the following definitions in your code:

```
#define ALPHABET_LENGTH    26
#define OPERATION_BUF_SIZE 5
#define NAME_BUF_SIZE      22
```

```
/* Basic trie node -- also, keep track of number of nodes below this one. */
typedef struct node {
    int num_children;
    struct node *children[ALPHABET_LENGTH];
} trie_node;
```

You may work in teams of **3**. Be sure to include each person's name at the top of the file as well as the pledge. Also, put the team members' names in a comment on Canvas to facilitate grading. Each team should upload a single zip file called contacts.zip with the C source code, makefile, and test cases inside.

## Note:

If you cannot get your code to pass the tests on HackerRank, you should also submit a PDF in your zip file explaining:

- What type of error you are getting on HackerRank. (You may "purchase" the input to the test case you are failing.)
- What you tried to accomplish when coding the algorithm.

- What test cases you ran locally and what is wrong with the output. If you see nothing wrong with any test cases locally, double check corner cases.
- How you went about tracing/debugging your code.

The more information you provide, the easier it is for someone to help you correct your problem.

Trie Rubric			
Criteria	Ratings		Pts
Name	5.0 pts Full Marks	0.0 pts No Marks	5.0 pts
Pledge	5.0 pts Full Marks	0.0 pts No Marks	5.0 pts
Comments	5.0 pts Full Marks	0.0 pts No Marks	5.0 pts
Test Cases	10.0 pts Full Marks	0.0 pts No Marks	10.0 pts
Correctness	75.0 pts Full Marks	0.0 pts No Marks	75.0 pts
			Total Points: 100.0