**Bomblab**

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CS241 Bomb Lab Manual  
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1. Go to your bomblab directory. The bomblab has already been deployed for you.

cd /afs/cu/class/cs241/s23/your\_username/handout\_bombID;

2. Type ls -la and check if there are three files.  
(1) bomb (executable file, e.g. type ./bomb)  
(2) bomb.c  
(3) README

3. Check your bomb ID by typing "cat README".  
For example, if "cat README" shows the following,

"This is bomb 4.

It belongs to dohkim (dohkim@clarkson.edu)"

Then your bomb ID is 4.

Each of you has a unique bomb and there is the unique solution to each bomb.

4. Defuse (solve) your bomb.

A "binary bomb" is a Linux executable C program that consists of six "phases." Each phase expects you to enter a particular string on stdin. If you enter the expected string, then that phase is "defused." Otherwise the bomb "explodes" by printing "BOOM!!!".  
The goal is to defuse as many phases as possible.

Each bomb phase tests a different aspect of machine language programs:  
Phase 1: string comparison  
Phase 2: loops  
Phase 3: conditionals/switches  
Phase 4: recursive calls and the stack discipline  
Phase 5: pointers  
Phase 6: linked lists/pointers/structs  
  
Phases get progressively harder. (You may have a "secret phase".)  
  
The bomb ignores blank input lines. You can also run it with your input file, for example,

/afs/cu/class/cs241/s23/username/handout\_bombID/]$./bomb bomb-dohkim-4.txt

This will read the input lines from bomb-dohkim-4.txt until it reaches EOF (end of file), and then switch over to stdin.

Once you have defused all 6 phases, you can see the following message at your standard output: "Congratulations! You've defused the bomb!"

5. Submission to the dedicated Polaris directory

For your submission to the Polaris directory /afs/cu/class/cs241/…, we just need the .txt file with the input strings that solve your bomb. Please rename/name your submission file to "bomb-your\_username-bombID.txt".  
For example, if your user name is "dohkim" and your bomb ID is 4, then your submission file to the Polaris directory should be named as "bomb-dohkim-4.txt".

Also, please run your solution file before you submit it, and do not include any comment in your submission file.

e.g. /afs/cu/class/cs241/s23/username/ handout\_bombID/]$./bomb bomb-dohkim-4.txt