

Assignment 1

Bomblab

Computer Security Lab

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Bomblab Goal

- An exercise in reading x86-64 assembly code.
- Practice using state-of-art debugger, GDB.

Bomblab Overview

- You need to enter the appropriate string by analyzing the bomb binary.
 - If you enter the wrong answer, bomb explode! (you will get penalty!)
- Each bomb has 8 phases, 7 normal phases + 1 secret phases.
 - You need to find out how to enter the secret phase by analyzing the binary.
- Each phase expects you to type a particular string on stdin or file.

Downloading Your Bomb

- <http://kayle.snu.ac.kr:15213>
- Enter your student ID and email address
 - Please use **snu** domain email address
- Your bomb is unique to you

How to copy bomb.tar into your container

- copy host file to the container

```
> docker cp <SOURCE_PATH> <CONTAINER_NAME>:<DESTINATION_PATH>
```

- copy container file to the host

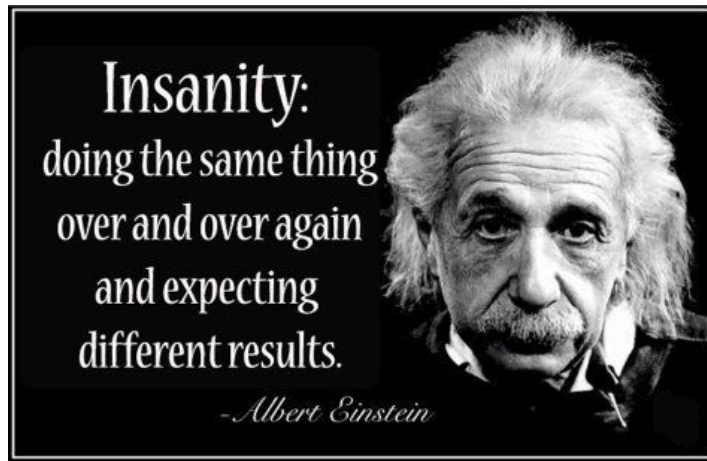
```
> docker cp <CONTAINER_NAME>:<SOURCE_PATH> <DESTINATION_PATH>
```

Useful Commands

- **`gdb`**
- **`strings`**
 - Prints all printable strings
- **`objdump`**
 - `-d`: disassembles the binary
 - `-t`: print out the symbol of the binary

Tips

- Please read the **bomblab.pdf** carefully.
- Don't forget to set up the breakpoints!
- If you have any questions, feel free to ask TAs via eTL.



Evaluation

- Total Score : 110 pts
 - Phase 1 - 4 : 10 pts per each
 - Phase 5 - 6 : 15 pts per each
 - Phase 7 and secret phase : 20 pts per each
- If you exploded the bomb, you will get a little penalty (0.5pts per explosion).
 - Again, don't forget to set up the breakpoints!
 - We allow five mistakes. In other words, If you explode the bomb 8 times, you will get -1.5 pts penalty.
 - Maximum penalty is 20 pts.
- You can check your score at <http://kayle.snu.ac.kr:15213/scoreboard>

Bomblab Demo