### Smashing the Stack

#### Cesena Security Network and Applications

University of Bologna, Scuola di Ingegneria ed Architettura Ingegneria Informatica Scienze e Tecnologie dell'Informazione Ingegneria e Scienze Informatiche

December 12, 2012



- 1 Introduction
- 2 Buffer Overflows
- Security
- 4 Shellcoding
- 6 Exercise
- 6 References



2 / 8

- Introduction
- 2 Buffer Overflows
- Security
- 4 Shellcoding
- 5 Exercise
- 6 References



990

### Introduction



990

3 / 8

- Introduction
- 2 Buffer Overflows
- 3 Security
- 4 Shellcoding
- 5 Exercise
- 6 References



December 12, 2012

### **Buffer Overflows**



December 12, 2012

- Introduction
- 2 Buffer Overflows
- Security
- 4 Shellcoding
- 5 Exercise
- 6 References



# Security Against Bofs



- Introduction
- 2 Buffer Overflows
- 3 Security
- 4 Shellcoding
- 5 Exercise
- 6 References



# Shellcoding



- Introduction
- 2 Buffer Overflows
- 3 Security
- 4 Shellcoding
- 6 Exercise
- 6 References



## Exercise



- Introduction
- 2 Buffer Overflows
- Security
- 4 Shellcoding
- 5 Exercise
- 6 References



#### References



Linux documentation.

http://linux.die.net/.

Intel.

Intel® 64 and IA-32 Architectures Software Developer's Manuale Combined Volumes:1, 2A, 2B, 3C, 3A, 3B and 3C. Intel, August 2012.

G. Adam Stanislav. ttp://www.int80h.org/.



