



Uday Mittal  
OSCP, CISSP, CISA, CISM  
<https://yaksas.in>

## YCSC Lab Exploitation Basics

### Egg Hunters Part 5

# Assumptions



- Knowledge of
  - Assembly level language
  - Kali Linux
  - Spike
  - Immunity Debugger

What to do if I need to learn above?

- Check out the resources mentioned at the end of this video

# Module Structure



- Introduction
- Fuzzing
- PoC Creation
- Controlling the Execution
- Bad Character Analysis
- Cracking the shell

# Bad Character Analysis



- Send all possible characters, from 0x00 to 0xff, as part of our buffer, and see how these characters are dealt with by the application, after the crash occurs.
- 0x00 – A bad character by default as it represents a null byte

# Identified Bad Characters



- Bad Characters: 0x00
- This character when converted to ASCII translates into following:
  - 0x00 - null byte
- Null byte is a global terminator and hence truncates any characters that appear after it. The line feed and end of file truncate the buffer and hence treated as bad characters in this case.

# Learning Resources



- **Kali Linux** – Kali Linux Revealed by Offensive Security (<https://www.kali.org/download-kali-linux-revealed-book/>)
- **Metasploit** - Metasploit: The Penetration Tester's Guide by David Kennedy, Jim O’Gorman, Devon Kearns, Mati Aharoni
- **Assembly Language** – SLAE course by SecurityTube (<https://www.pentesteracademy.com/course?id=3>)
- **Spike** - An Introduction to Fuzzing: Using fuzzers (SPIKE) to find vulnerabilities
- **Immunity Debugger** - Immunity Debugger basics (<https://sgros-students.blogspot.com/2014/05/immunity-debugger-basics-part-1.html>)
- **Exploit Development** - <https://www.fuzzysecurity.com/tutorials.html>



Thank you 😊



<https://yaksas.in>



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@yaksas443