EECS 388 Discussion 3/26/15

HW5 and Buffer Overflows

Homework 5 - Exam Review

- HTTP vs HTTPS

- Web attacks and web security

- Secure programming, defending from stack overflow attacks

- Ethics...be responsible!

Homework 5 - Exam Review

- How to do well on the exam?
  - Understand the topics covered in lecture
  - Understand the projects, the security vulnerabilities as well as possible defenses
  - Look at practice exam on CTools

- How to <u>not</u> do well?
  - Have your partner do all the projects

Buffer Overflow Discussion

- How does the stack look?

- Where is the return address?

- What can you return to? How to gain control of a program? (Shellcode)

- Integer overflow? What is it? How does it work?
  - 2^31 << 2 = ?

Buffer Overflow Discussion

- What is DEP? How can we work around it?

- Address-Space Layout Randomization (ALSR)
  - why don't previous attacks work?