Lab 2 – Buffer Overflow Attack lab

Report

**Due: Wed, Oct 13th, 2:30 pm.**

**Turn in: this report**

**Points: 100 pts**

**Section 1: Write a detailed report about the Buffer Overflow Attack lab. (60 points)**

* (40 points) Include step by step screenshots and explanations to show your exploit work.
* (10 points) Include illustrations of the stack to show what you did.
* (10 points) Include the listing of your code and give a line-by-line explanation of what it does and how it works.

**Section 2: Answer these questions in your own words. (30 points)**

* Define buffer overflow. What are the two key elements that must be identified in order to implement a buffer overflow?
* Define stack frame, what are included in a stack frame.
* Illustrate the changes in a stack when a function is called.
* Define shellcode.
* Define what a NOP instruction is and how it is used in a buffer overflow attack.
* List two defenses against buffer overflows and explain how they work.

**Section 3: Conclusion (10 points)**

What did you learn from the lab?