**CS763 Lab 2 Buffer Overflow**

Yourname

**Instructions**

* Please document how you implement these requirements by showing your source code snippets and the screenshot(s) of the execution result in the lab report.
* Please name your report as CS683\_<Last Name><First Name>\_Lab1. It can be either a PDF or Word document.
* Please provide your feedback in the “Add comments” section when submitting your lab report. Thanks!

## **Brief description (purpose and overview)**

Buffer vulnerability is one of the top and most destructive vulnerabilities. In this lab, you will gain further understanding of the buffer overflow vulnerability by writing the vulnerable code and exploit code, and conducting attacks. We will use a well designed lab developed by Prof. Wenliang Du from Syracuse University.

## **Learning Objectives**

After finishing this lab, students shall be able to:

1. Understand basic concepts about buffer overflow attack
2. Understand memory layout and suid problems.
3. Write basic exploit code and perform attacks.

## **Prerequisite knowledge**

* Have very basic knowledge of C
* Be comfortable using a CLI and gcc .

## **Lab Setup Requirements**

* Download and Install prebuilt ubuntu 16.04 VM from the SEED website (<http://www.cis.syr.edu/~wedu/seed/labs.html> )

## **Detailed instructions**

Please refer to the lab description posted on the SEED lab page. (<https://seedsecuritylabs.org/Labs_16.04/Software/Buffer_Overflow/>)

## **Questions**

Describe what you have done and what you have observed for each task listed in the lab instructions. You also need to provide explanations to the observations that are interesting or surprising. Please also list the important code snippets followed by explanation.

## **Deliverables**

Please submit the lab report in a single document named *CS763\_yourusername\_Lab2*. Please submit a word or PDF document. The lab report should include:

1. Title, author
2. Table of Contents
3. The detailed steps and results using text descriptions and screenshots that answer the above questions and demonstrate your lab progress.
4. A summary of your own reflection on the lab exercise, such as:
   1. What is the purpose of the lab in your own words?
   2. What did you learn? Did you achieve the objectives?
   3. Was this lab hard or easy? Are the lab instructions clear?
   4. What do you think about the tools used? What worked? What didn’t? Are there other better alternatives?
   5. Any other feedback?