**ECEN 192R**

**Lab 10: Cybersecurity**

**DISCLAIMER:**

**This cybersecurity lab provides students with hands-on experience in basic hacking within a controlled environment. All activities are confined to designated devices and systems for educational purposes only. Unauthorized hacking into any other systems, networks, or devices is strictly prohibited.**

**Remember, hacking without permission is illegal and can result in severe legal consequences. Always act ethically and respect the boundaries of this lab. Violations of these guidelines may lead to disciplinary action and potential legal repercussions.**

**Overview:**

This lab will introduce you to basic de-hashing and the CIA triangle.

**Background/Preparation:**

In the last lab, you should have registered an account on the Y-Badge webpage. Log in to ensure you have this done. Find a partner and remain with them for the duration of the lab. NOTE: This lab must be done on-campus, and devices should be connected to the Wi-Fi called \_\_\_\_\_.

Open this webpage: \_\_\_\_\_. Follow along with this video: \_\_\_\_\_.

**Equipment and Materials:**

* Y-Badge
* LED screen
* Computer or Phone

**Procedure:**

Step 1: Webpage Exploration

1. Turn on Y-Badge
2. Open Y-Badge webpage and log in
3. Explore the site, click things
4. Click on Y-Badge button on webpage
5. Look to your LED screen to find your IP address and password
6. Change the color of your Y-Badge LEDs

Step 2: Webpage Exploitation

1. Enter /robots.txt at the end of the domain (i.e. cloudflare.com/robots.txt)
2. Look for suspicious pages
   1. Hint: Explore the disallowed pages

Step 4: Breach of Confidentiality (seeing something you shouldn’t see)

1. Find the IP address of your partner on their LED screen
   1. Hint: Consider “shoulder-surfing” their LED screen
2. Input your partner’s IP address to receive their password hash
3. Use one of the following tools to reveal the hashed password:
   1. [DCode](https://www.dcode.fr/md5-hash)
   2. [Hashes](https://hashes.com/en/decrypt/hash)

Step 5: Breach of Integrity (changing something that you shouldn’t change)

1. Return to the Y-Badge section of the webpage
2. Input your partner’s Y-Badge IP address and the password you de-hashed
3. Change the LED colors of your partner’s badge

Step 6: Challenges

1. Scour the webpage to find easter eggs to send to your partner’s Y-Badge
   1. Hint: Consider checking other endpoints and disallowed paths

**Optional Post-Lab Work:**

Show your friend or roommate your project and quickly explain to them how it works. Answer any questions they have to the best of your ability and be prepared to report in class.

The webpage and Y-Badges will be functional across BYU campus. Continue searching for easter eggs using the steps we followed.

**Submission:**

Complete the Lab Evaluation Survey.