

# **CYSE 270: Linux System for Cybersecurity**

## **Assignment: Lab 5 – Password cracking**

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The goal of this lab is to test the strength of different passwords.

### Task A – Password Cracking

1. Create **6 users** in your Linux Terminal, then set the password for each user that meets the following complexity requirement respectively. You should list the passwords created for each user. **[6 \* 5 = 30 points]**

1. For user1, the password should be a simple dictionary word (all lowercase)
2. For user2, the password should consist of 4-character digits
3. For user3, the password should consist of a simple dictionary word of any length (all lowercase) + digits
4. For user4, the password should consist of a simple dictionary word (all lowercase) + digits +symbols
5. For user5, the password should consist of a simple dictionary word (all lowercase) + digits
6. For user6, the password should consist of a simple dictionary word (with a combination of lower and upper case) + digits +symbols

**Remember, do not use the passwords for your real-world accounts.**

2. **Export above users' hashes** into a file named **xxx.hash** (replace xxx with your MIDAS) and use **John the Ripper** tool to crack their passwords in wordlist mode (use rockyou.txt). **[ 40 points]**

3. Keep your john the ripper cracking for 10 minutes. How many passwords have been successfully cracked? **[30 points]**

### **Extra credit (10 points):**

1. Find and use the proper format in John the ripper to crack the following **MD5** hash. Show your steps and results.

- 5f4dcc3b5aa765d61d8327deb882cf99

- 63a9f0ea7bb98050796b649e85481845