

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 system, then assign each user a password that meets the following complexity requirement respectively. You should list the passwords created for each user. **[6 * 5 = 30 points]**

1. A simple dictionary word (all lowercase)
2. 4-character digits
3. A simple dictionary word (all lowercase) + digits
4. A simple dictionary word (all lowercase) + digits +symbols
5. A simple dictionary word (all lowercase) + digits
6. A simple dictionary word (w. a mix of lower and upper case) + digits +symbols

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

2. Export above users' hash into a file named **xxx.hash** (replace xxx with your MIDAS ID) and use John the Ripper to crack their passwords in wordlist mode (use rockyou.txt). **[40 points]**
3. Keep your john the ripper cracking for at least 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