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CYSE 270: Linux System for Cybersecurity
Lab 5: Password Cracking

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 digits.

3. For user3, the password should consist of a simple dictionary word of any length characters (all lowercase) + digits.

4. For user4, the password should consist of a simple dictionary word characters (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 name) 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?

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```
┌──(didi㉿kali)-[~]
└─$ sudo john --format=crypt icace001.hash --wordlist=/home/didi/rockyou.txt
Using default input encoding: UTF-8
Loaded 9 password hashes with 9 different salts (crypt, generic crypt(3) [?/6
4])
Remaining 8 password hashes with 8 different salts
Cost 1 (algorithm [1:descrypt 2:md5crypt 3:sunmd5 4:bcrypt 5:sha256crypt 6:sh
a512crypt]) is 0 for all loaded hashes
Cost 2 (algorithm specific iterations) is 1 for all loaded hashes
Press 'q' or Ctrl-C to abort, almost any other key for status
password        (userone)
1g 0:00:00:29 0.00% (ETA: 2025-10-18 09:42) 0.03437g/s 9.900p/s 89.10c/s 89.1
0C/s adidas..michael1
1g 0:00:00:48 0.00% (ETA: 2025-10-17 15:45) 0.02047g/s 11.79p/s 90.43c/s 90.4
3C/s evelyn..kelly
1g 0:00:00:49 0.00% (ETA: 2025-10-17 23:11) 0.02004g/s 11.54p/s 90.45c/s 90.4
5C/s evelyn..kelly
1234            (usertwo)
2g 0:00:02:25 0.01% (ETA: 2025-10-22 08:22) 0.01377g/s 9.914p/s 69.40c/s 69.4
0C/s rachelle..mexico1
2g 0:00:02:44 0.01% (ETA: 2025-10-21 09:18) 0.01213g/s 10.48p/s 72.21c/s 72.2
1C/s 2hot4u..eastside
2g 0:00:03:05 0.01% (ETA: 2025-10-20 22:12) 0.01075g/s 10.84p/s 74.35c/s 74.3
5C/s harris..morado
2g 0:00:03:36 0.01% (ETA: 2025-10-20 00:31) 0.009254g/s 11.54p/s 76.84c/s 76.
84C/s shamrock..keith
2g 0:00:03:37 0.01% (ETA: 2025-10-20 02:26) 0.009210g/s 11.49p/s 76.92c/s 76.
92C/s shamrock..keith
```

These were the only two passwords it could crack after 15 minutes.