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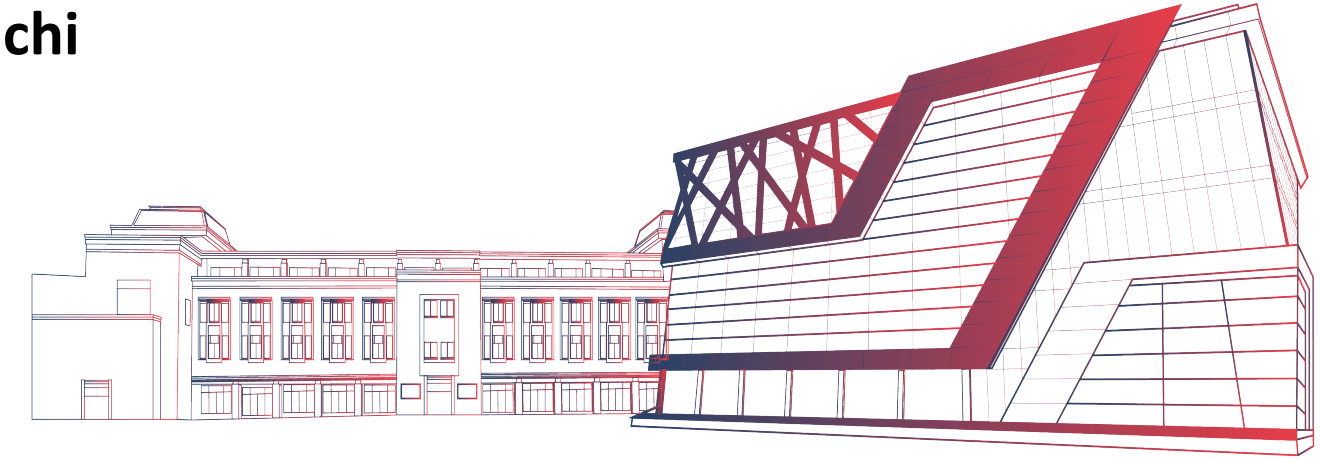
Login Bypass

Dr. Prachi



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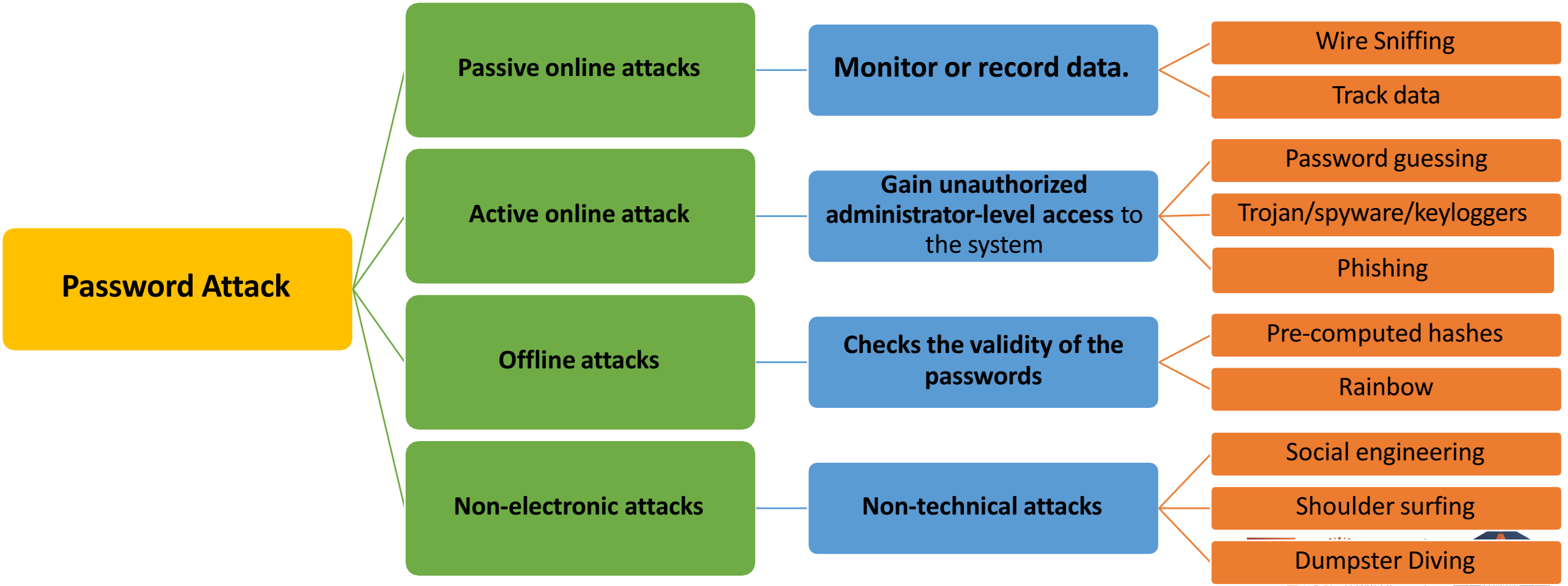
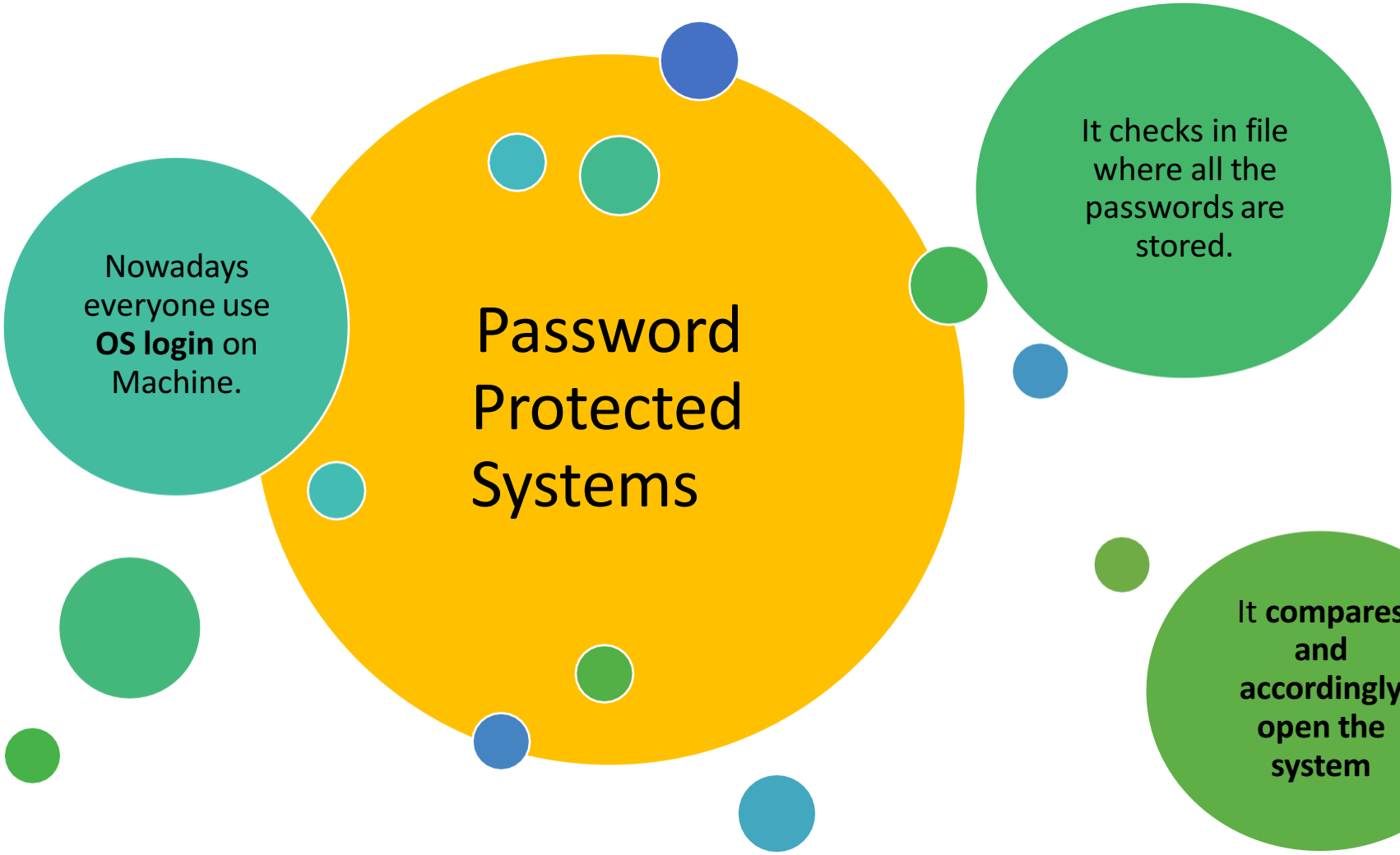
Types of Password Attacks



OS Login Bypass



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Which file in Windows stores the password of all the users??

SAM

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In windows, **SAM (Security Account Manager)** file **stores passwords** of all the users

SAM is **part of the registry** and can be **found on the hard disk.**

C:\Windows\System32\config\SAM (contains password)

SAM file is part of the **Microsoft Windows Operating System**

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Which file in Linux/MAC is used for storing passwords?

etc

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/etc/ is where **configuration files and directories** are located.

/etc/passwd-

- The user database includes **username, real name, home directory, and other information** about **each user**.
- The format is documented in the **passwd** manual page.

/etc/shadow-

- **It is an encrypted file that holds user passwords.**

Linus/Window/MAC

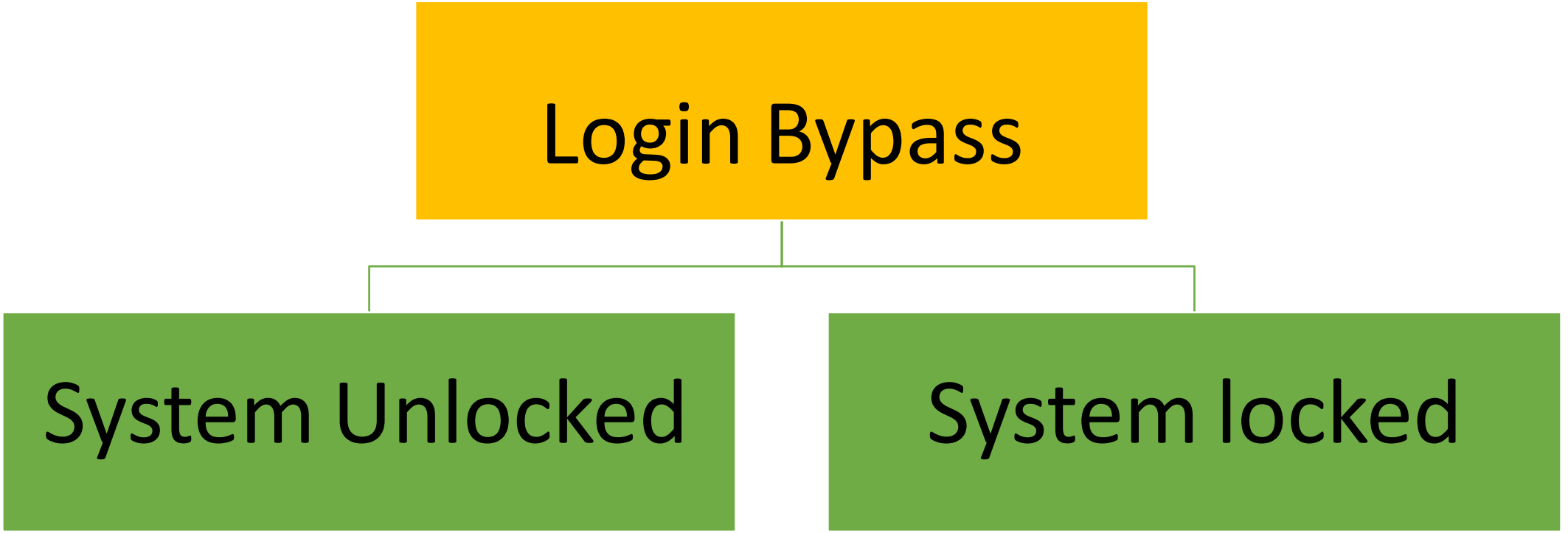
In windows-

Passwords can break

In Linux and MAC- passwords can be bypassed.

Then, we can enter the system and can change the password.

OS Login BYPASS



1. System unlocked: Change Password

If I get a call, or I go to washroom, or I go to take coffee-I keep my system unlocked

These steps will tell you on the basis of scenario's that how to enter and crack into a particular operating system.

1. Password change-Steps

(Good Method) using CMD

1. Open CMD (run as administrator)

2. CMD > net user (Net user is a tool which shows all the users)
   - Eg cmd> net user Mehak *

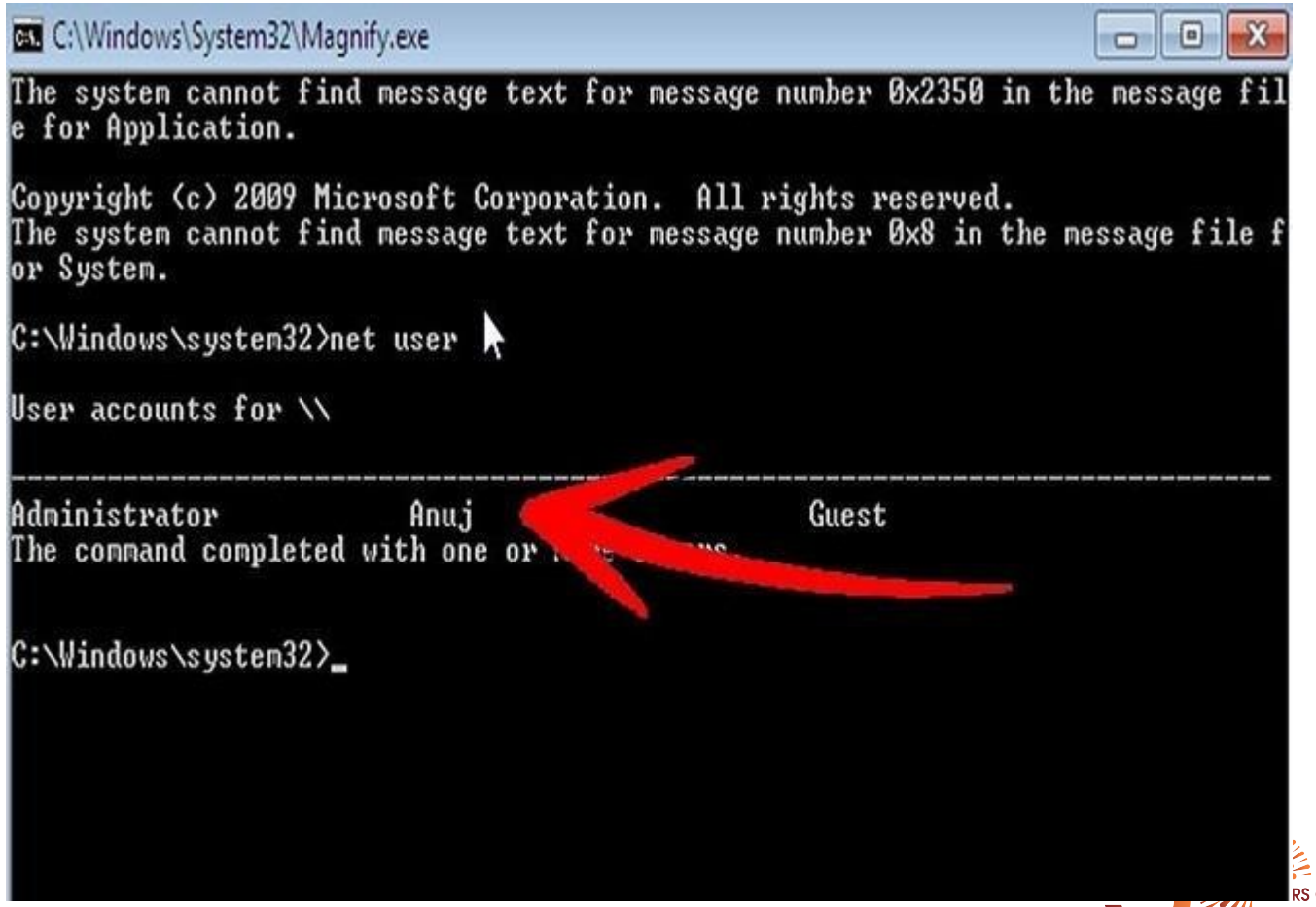
3. CMD > net user username *
   - Is used to change password
   - It will ask to enter and retype password.

4. Restart

Now do anything, you have your account in someone else system

Write command net user

- Open cmd
- Command : Net user



Change Password:

- Write command : net user username *

```
C:\Users\JKonquezt>net user username *
```

- It will ask you enter new password: net user Administrator *

```
C:\Users\prach>net user Administrator *
Type a password for the user:
Retype the password to confirm:
The command completed successfully.
```

Password change-Steps (add user)

Other commands

https://www.lifewire.com/net-user-command-2618097

You can also add user using /add

1. Open CMD (run as administrator)

   2.CMD > net user username * /add

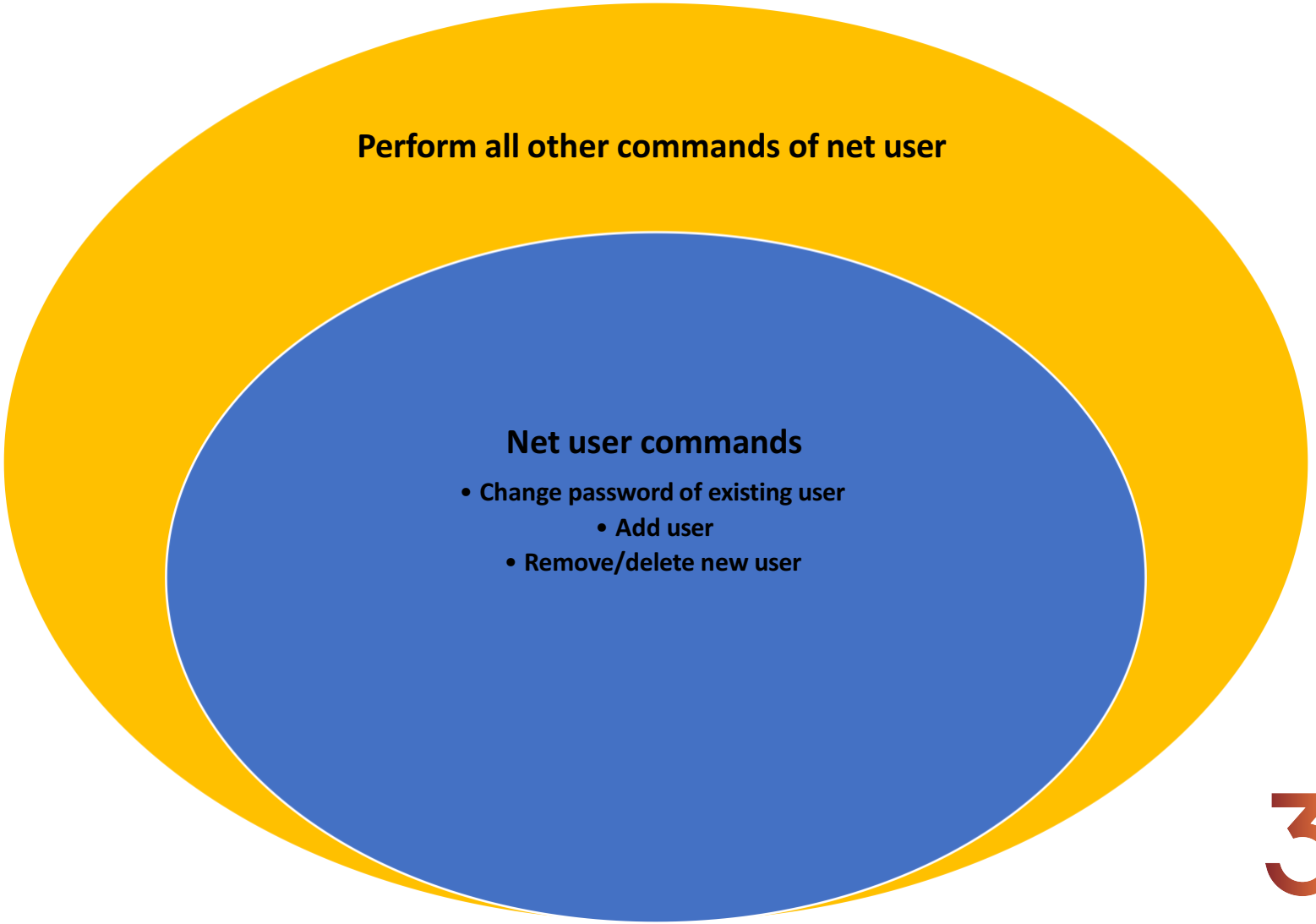
Eg cmd> net user Laxya * /add

It will ask to enter and retype password.

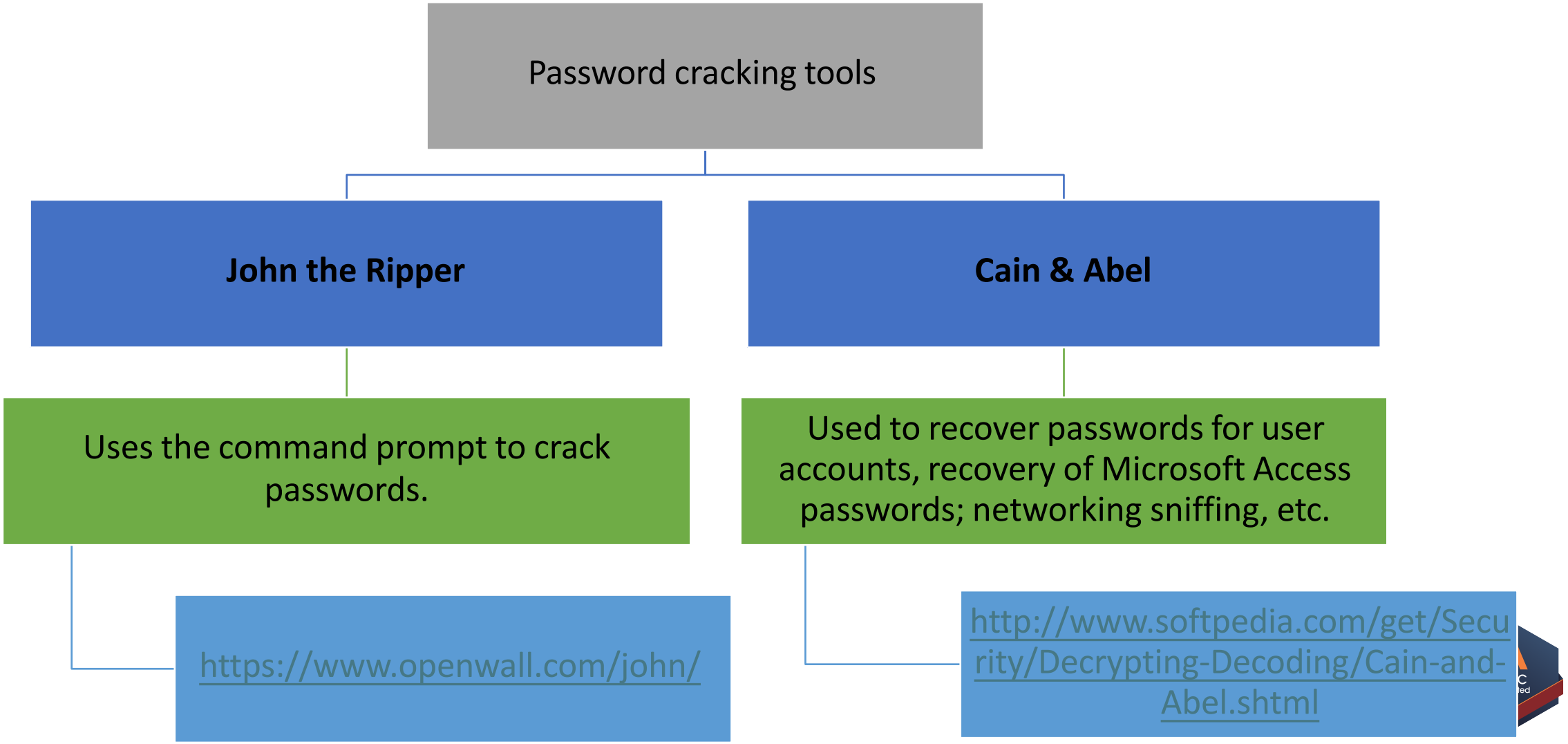
Password Change-Steps (add user)

```
C:\Users\prach>net user Laxya * /add
Type a password for the user:
Retype the password to confirm:
The command completed successfully.


C:\Users\prach>net user

User accounts for \\LAPTOP-REJCUKM6

-------------------------------------------------------------------------------
Administrator            DefaultAccount           Guest
Laxya                    prach                    WDAGUtilityAccount
The command completed successfully.
```

In class Exercise



Password cracking tools



Password cracking tool: Cain and Abel

Use NTLM in Cain and Abel

Cain and Abel cracker can be used to crack passwords using;

- **Dictionary attack**
- **Brute force**
- **Cryptanalysis**

Use the dictionary attack in this example.

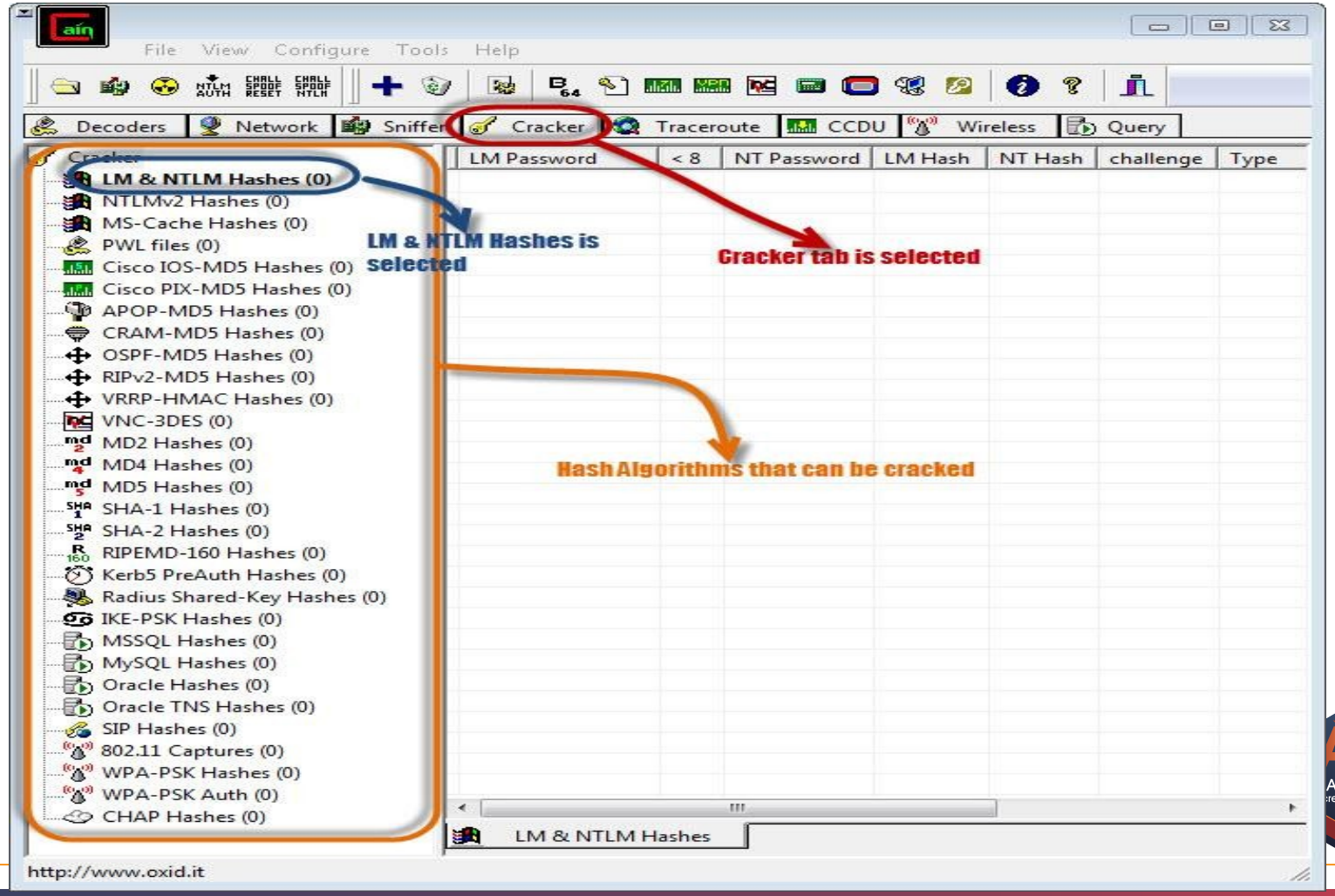
Download the dictionary attack wordlist from google

Password cracking tool: Cain and Abel

- Create an account called Accounts with the password qwerty on Windows 7

Password cracking steps

- Open **Cain and Abel**, you will get the following main screen



Password cracking steps

- Make sure the cracker tab is selected as shown above
- Click on Add button on the toolbar.

Password cracking steps

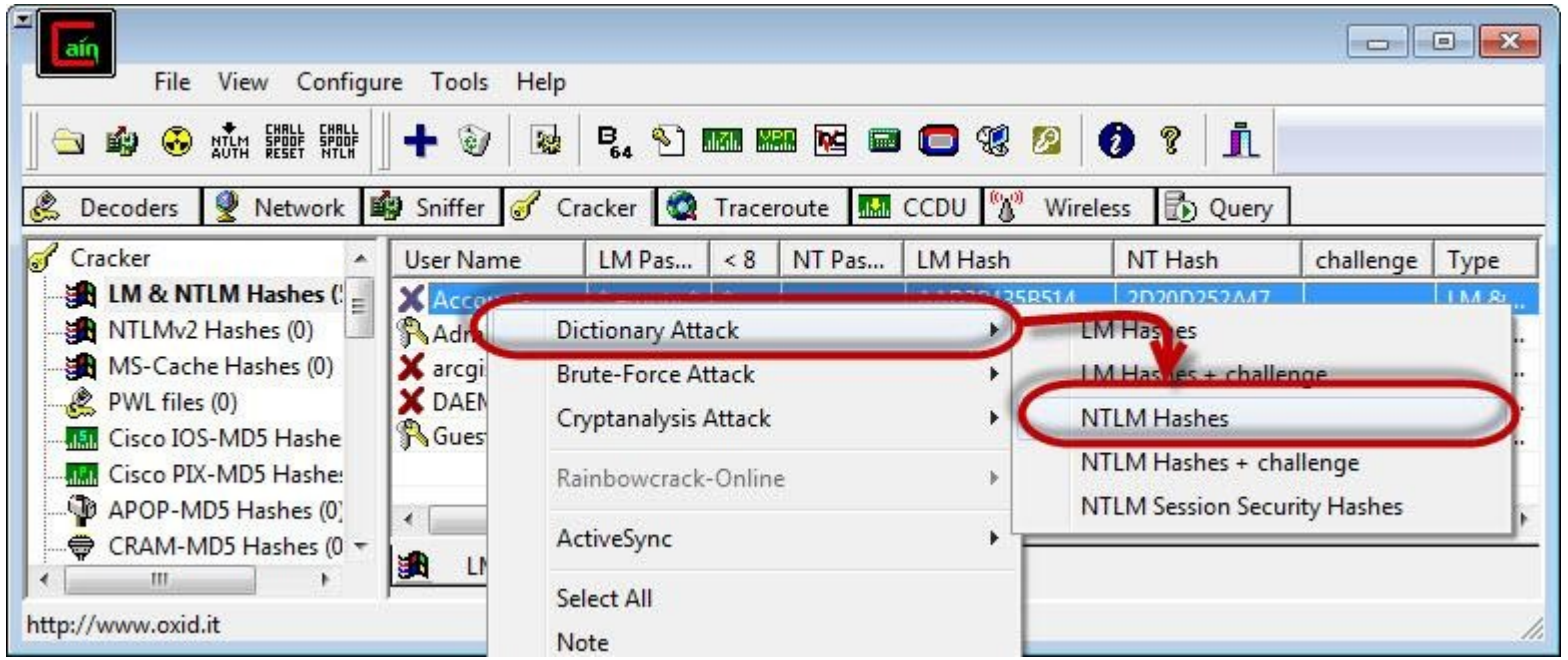
- The following dialog window will appear

Password cracking steps

- The local user accounts will be displayed as follows.
- Note the results shown will be of the **user accounts** on your local machine

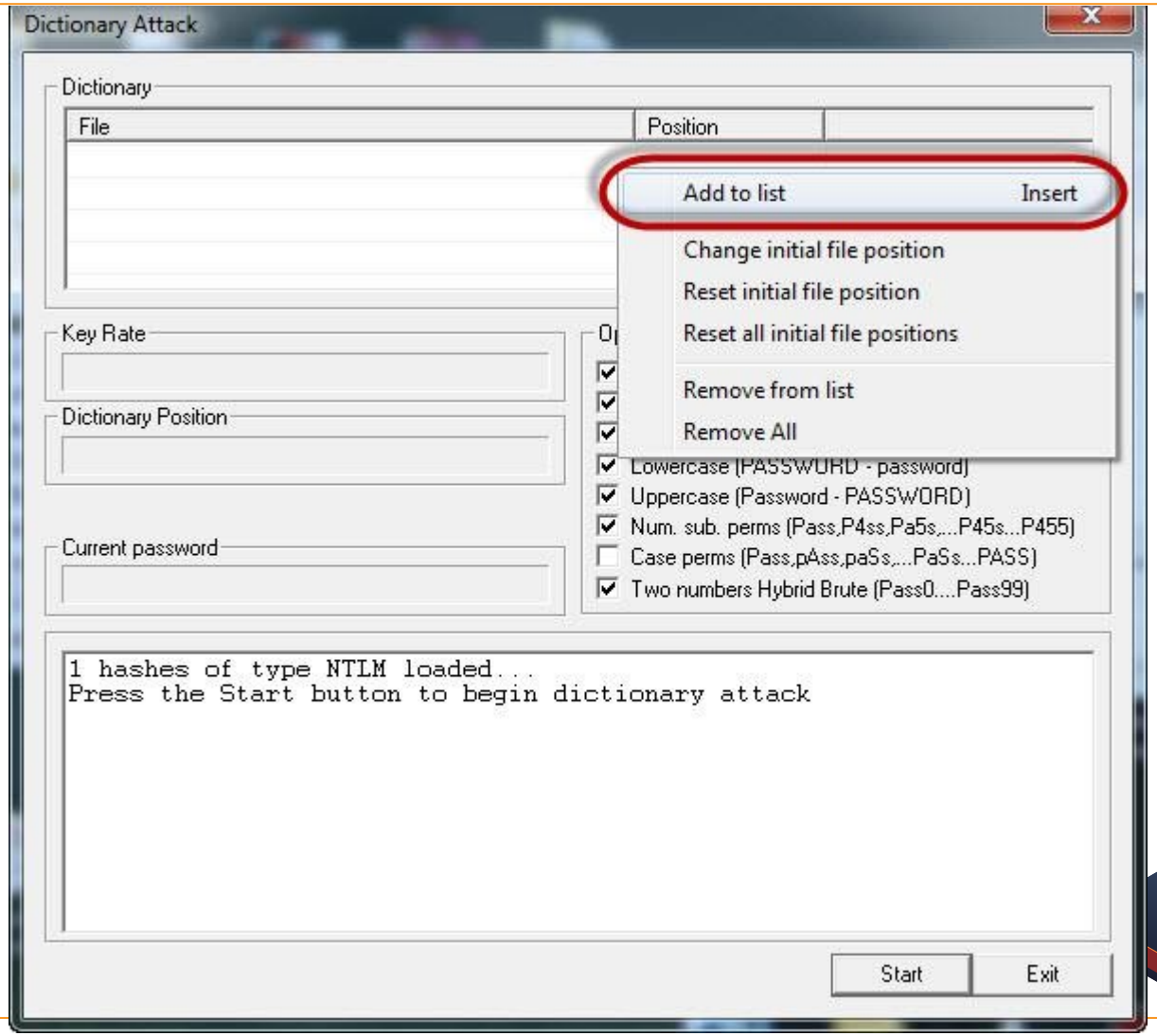
Password cracking steps

- Right click on the **account you want to crack.**
- Here We will use Accounts as the user account.



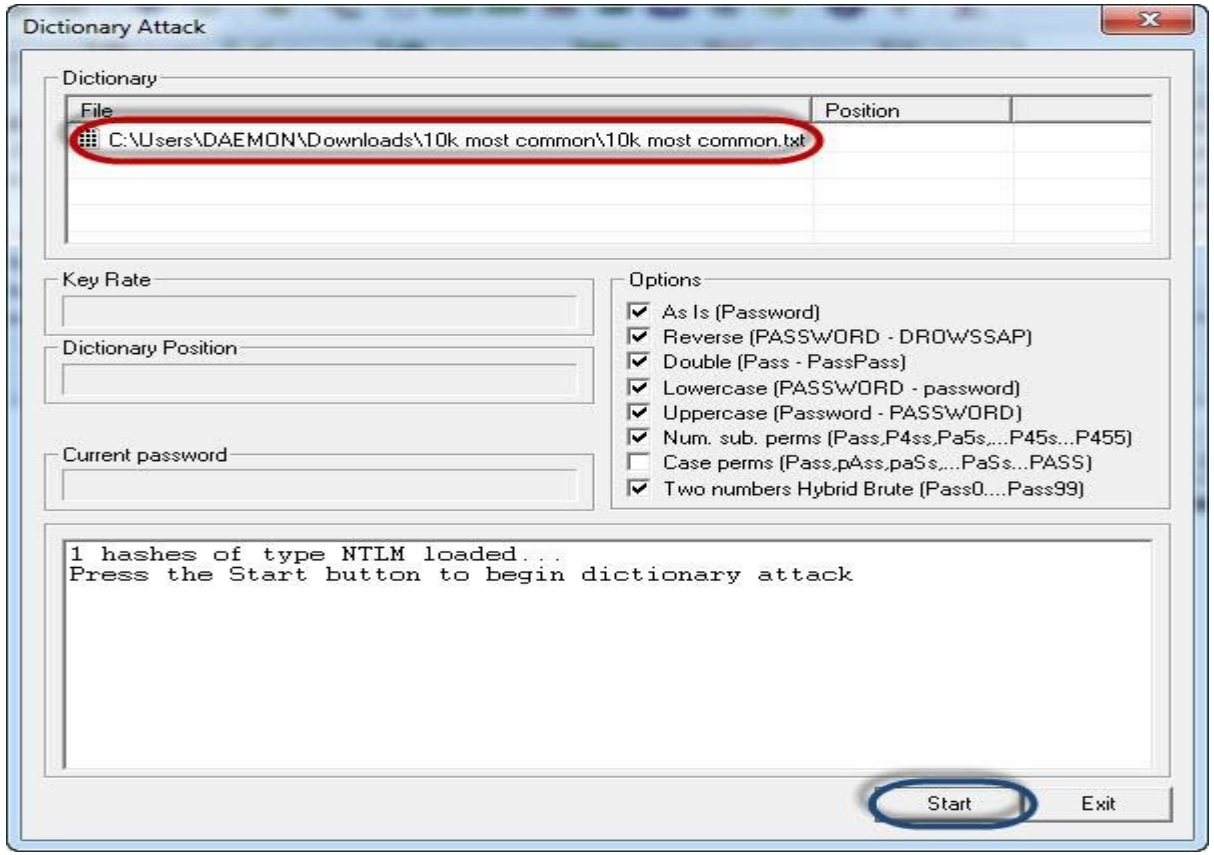
Password cracking steps

- The following screen will appear



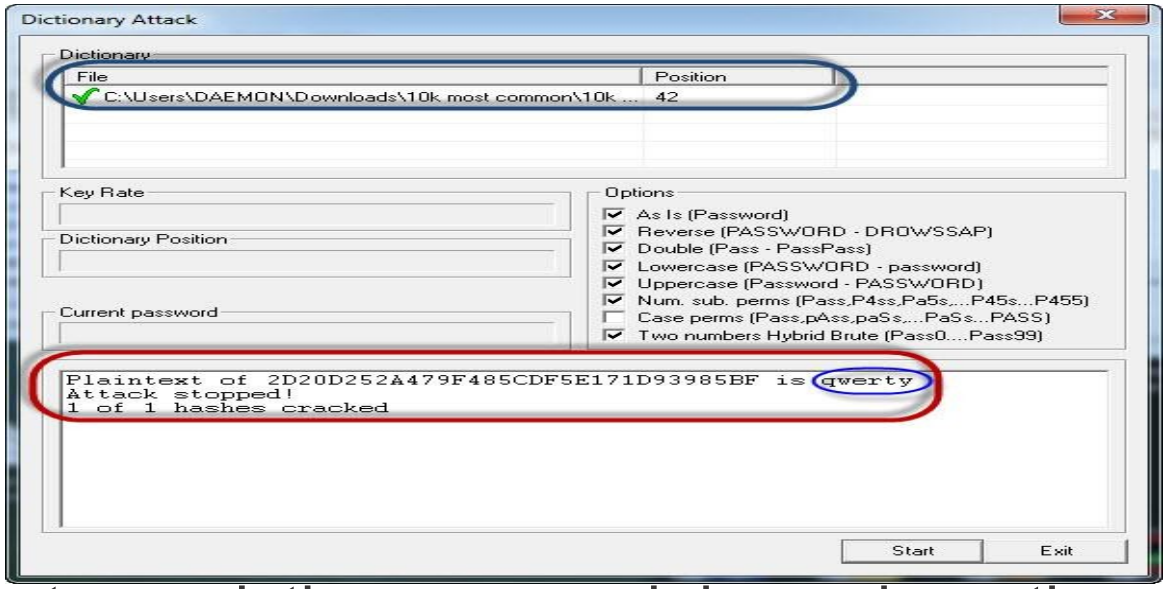
Password cracking steps

- Right click on the dictionary section and select Add to list menu as shown above
- Browse to the 10k most common.txt file that you just downloaded



Password cracking steps

- Click on start button
- If the user used a simple password like qwerty, then you should be able to get the following results



- ***Note***: the time taken to crack the password depends on the password strength, complexity and processing power of your machine.
- If the password is not cracked using a dictionary attack, you can try brute force or cryptanalysis attacks

John the Ripper-Linux

- Tool to recover the password of a compressed zip file called "**John the Ripper**".
- John the Ripper is a free password cracking software tool.
- Originally developed for the Unix operating system, it can run on 15 different platforms.

```
apt install zip apt install unzip apt
install john

```

- **I**

John the Ripper-Linux

•We can use the “John the Ripper” tool simply by entering “john” on our terminal. #john

•We can also use this tool by entering the following command on the terminal. #zip2john

Create Password Protected ZIP File

cat > file1.txt

Add text in file 1
Press CRTL+D

cat > file2.txt

Add text in file 2 Press CRTL+D

zip --password prachi@# myzipfile.zip file1.txt file2.txt

John the Ripper-Linux

- Try to unzip this file using unzip software:
  - unzip myzipfile.zip
  - Try different passwords

- **Suppose you forgot the password that you set during file creation ?**

Get a hashes of the zip file using the zip2john tool.

  - zip2john myzipfile.zip > zip.hashes

- **Crack Password with John**
  - john zip.hashes

- **If not able to crack the password:**
  - john --wordlist=wordlist.txt zip.hashes