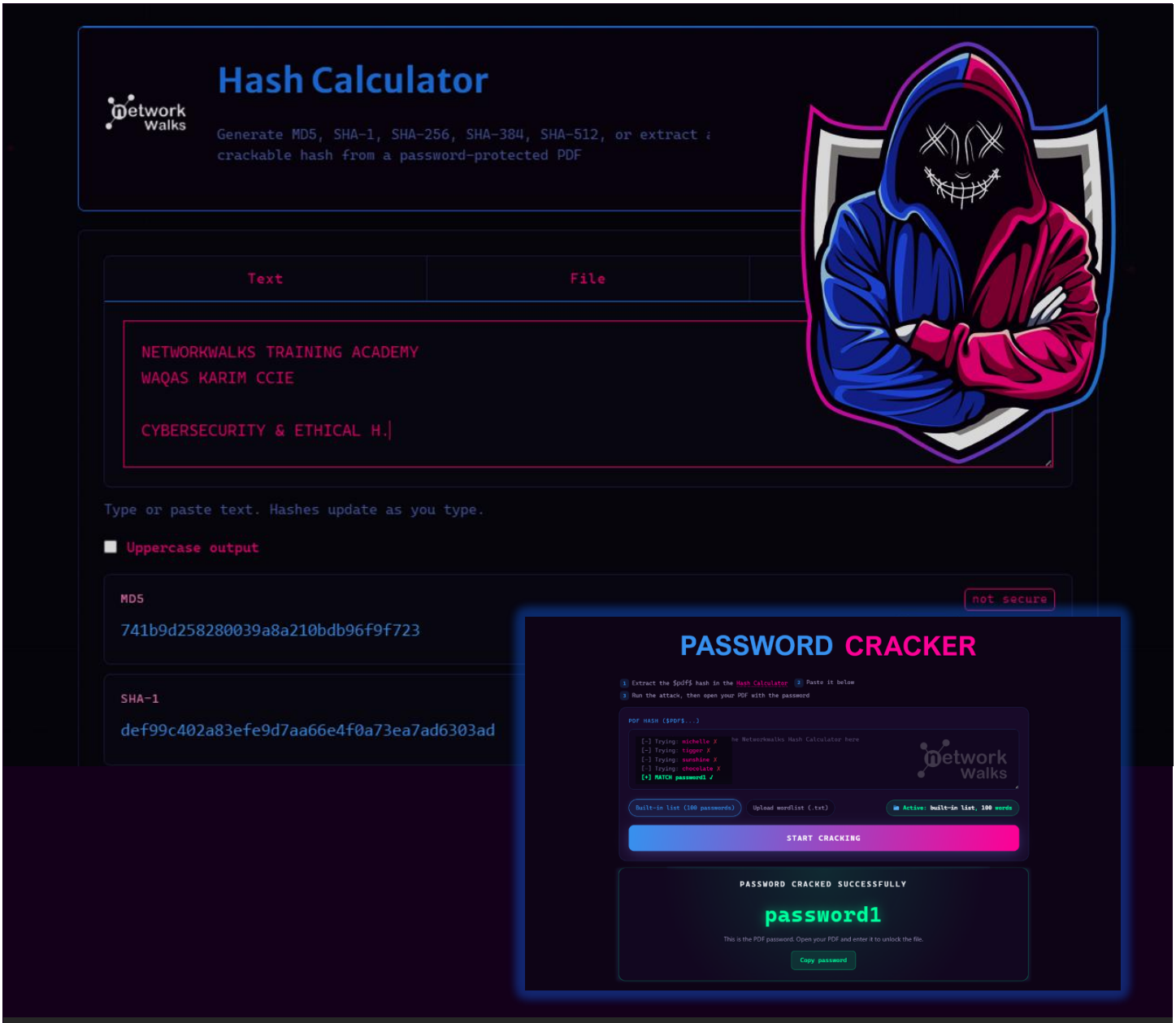


PASSWORD CRACKING WITH NETWORKWALKS TOOLS

CYBERSECURITY & ETHICAL HACKING PROJECT TASKS

WEEK 3 | PROJECT MODULE 2

PASSWORD CRACKING WITH NETWORKWALKS TOOLS

Background

Password cracking is the process of recovering a password from stored data or a protected file. Security professionals use it to test how strong a password is and to show why weak passwords are risky. If a password is short or common, it can be found quickly, which proves the need for strong passwords.

Many files like PDF, ZIP, and Office documents can be locked with a password. When a file is locked, its password is stored in the form of a hash. A hash is a scrambled value that represents the password. To recover the password, we first take out this hash from the file, and then run it through a cracking tool that tries different words until it finds a match.

In this lab you will use two free online tools made by Networkwalks. First you will use the Hash Calculator to take the hash out of a locked PDF file. Then you will use the Password Cracker to find the real password from that hash. Both tools run in your web browser, so you do not need to install anything.

This lab helps you understand how password cracking works step by step and why strong passwords are important for protection.

Task

Crack the password of the attached PDF file (My Locked PDF1.pdf) using the Networkwalks Hash Calculator and Password Cracker tools on your Windows laptop.

Note: You can also do this lab on Kali Linux, as both tools run in any web browser.

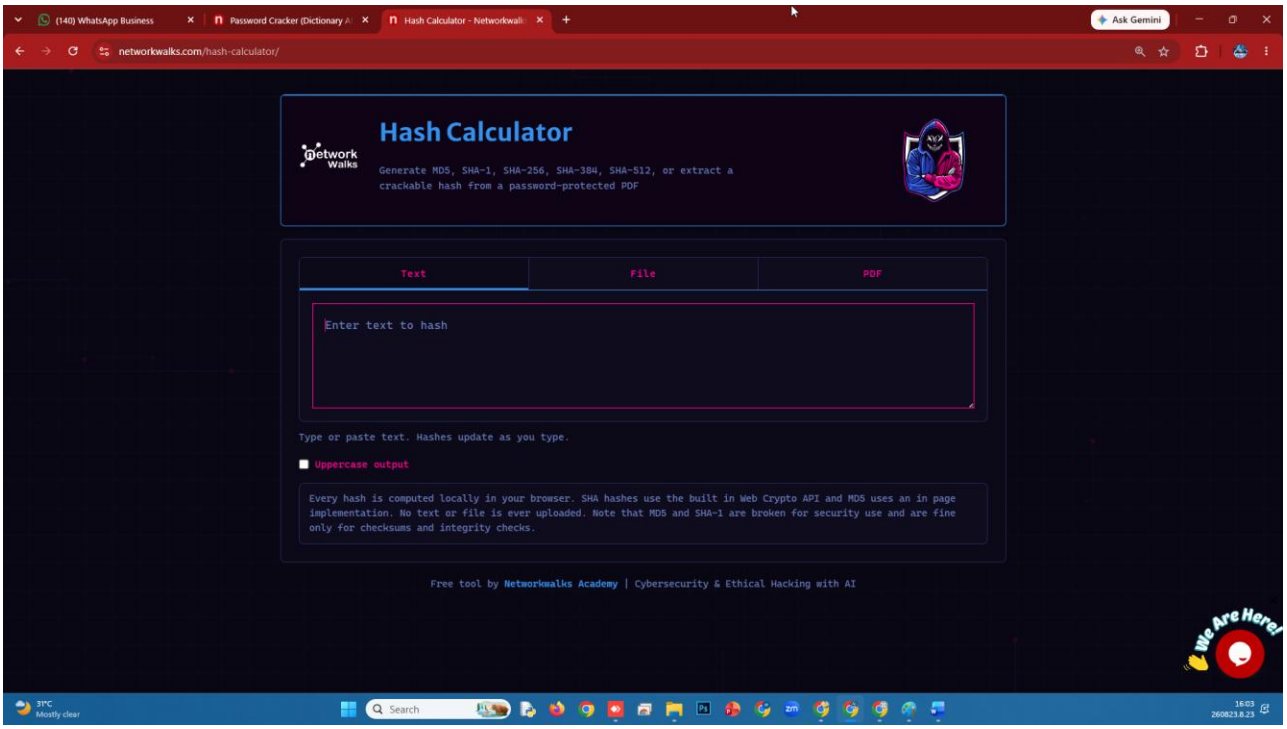
Solution

STEP 1

Download the encrypted PDF file (My Locked PDF1.pdf) to your laptop from the lab page:
https://networkwalks.com/project-task-lab-password-cracking-with-networkwalks-tools/

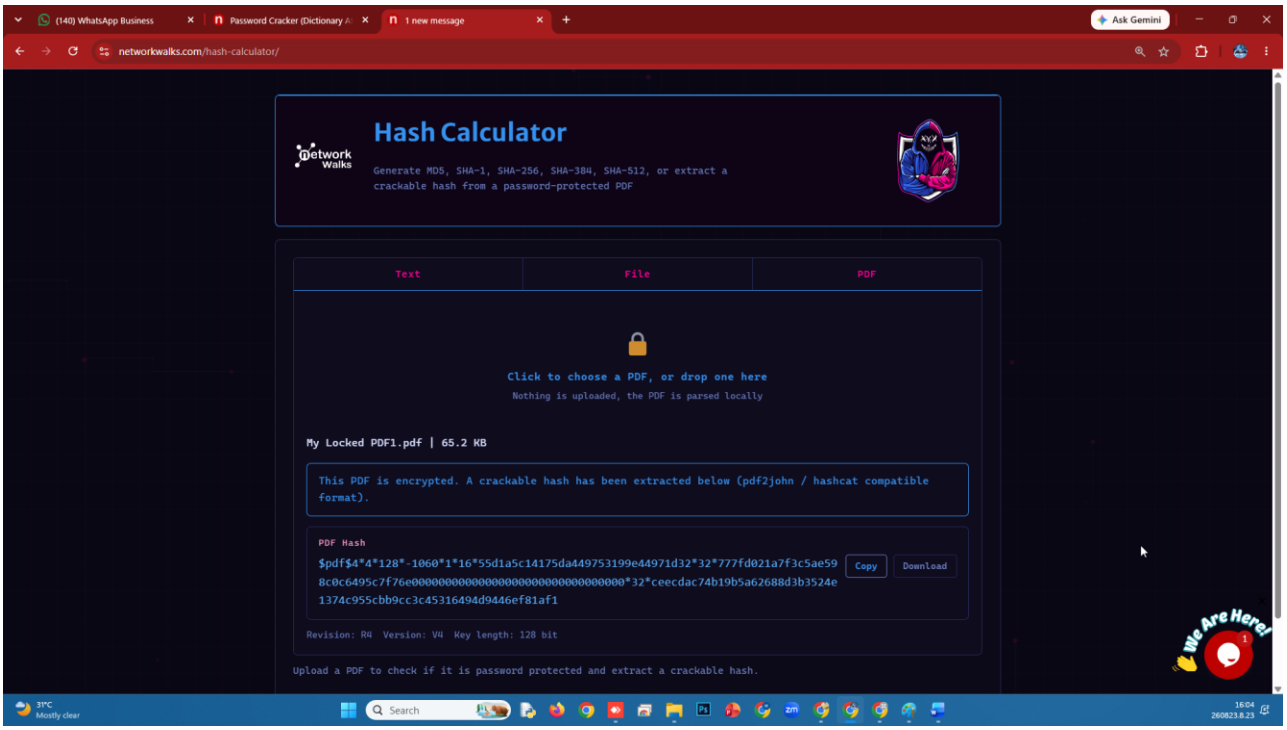
STEP 2

Open the Networkwalks Hash Calculator in your web browser:
https://networkwalks.com/hash-calculator/



STEP 3

Upload the locked PDF file to the Hash Calculator. The tool will read the file and give you the hash value that starts with pdf...



STEP 4

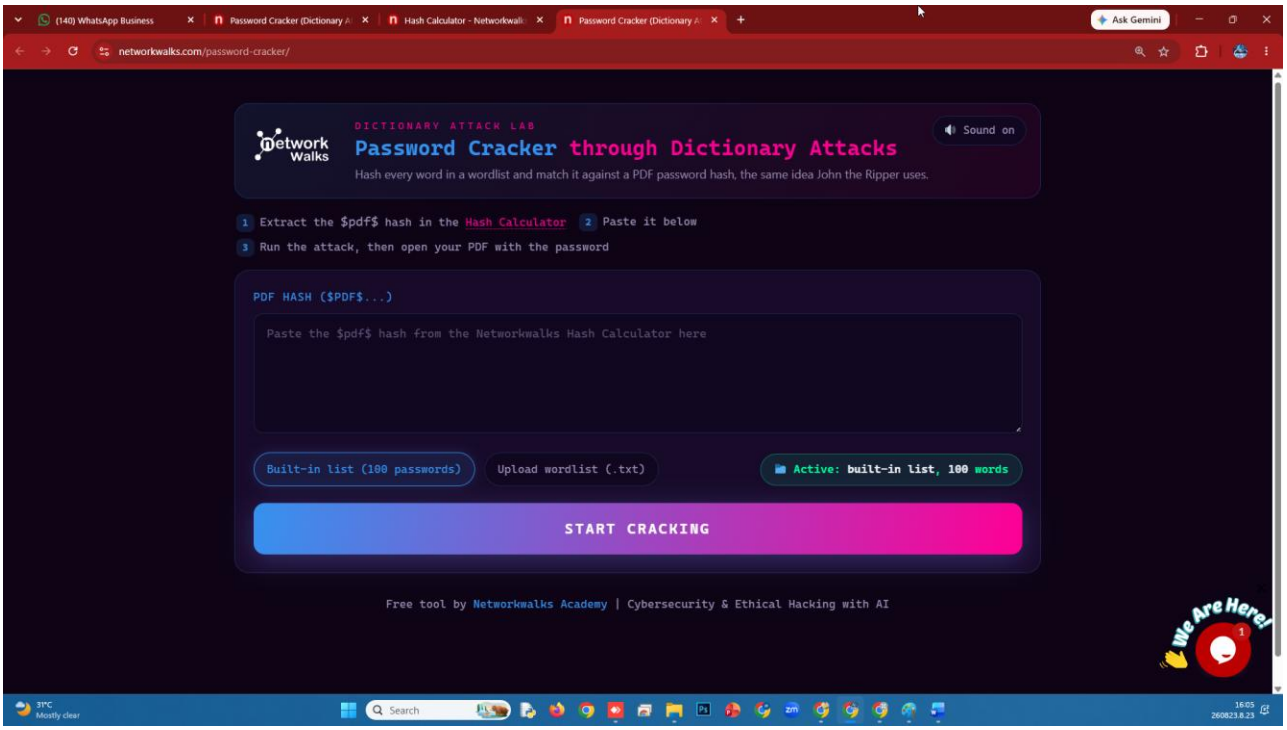
Copy the full hash value.

Note: Copy the complete hash starting from pdf. Do not miss any part of it.

STEP 5

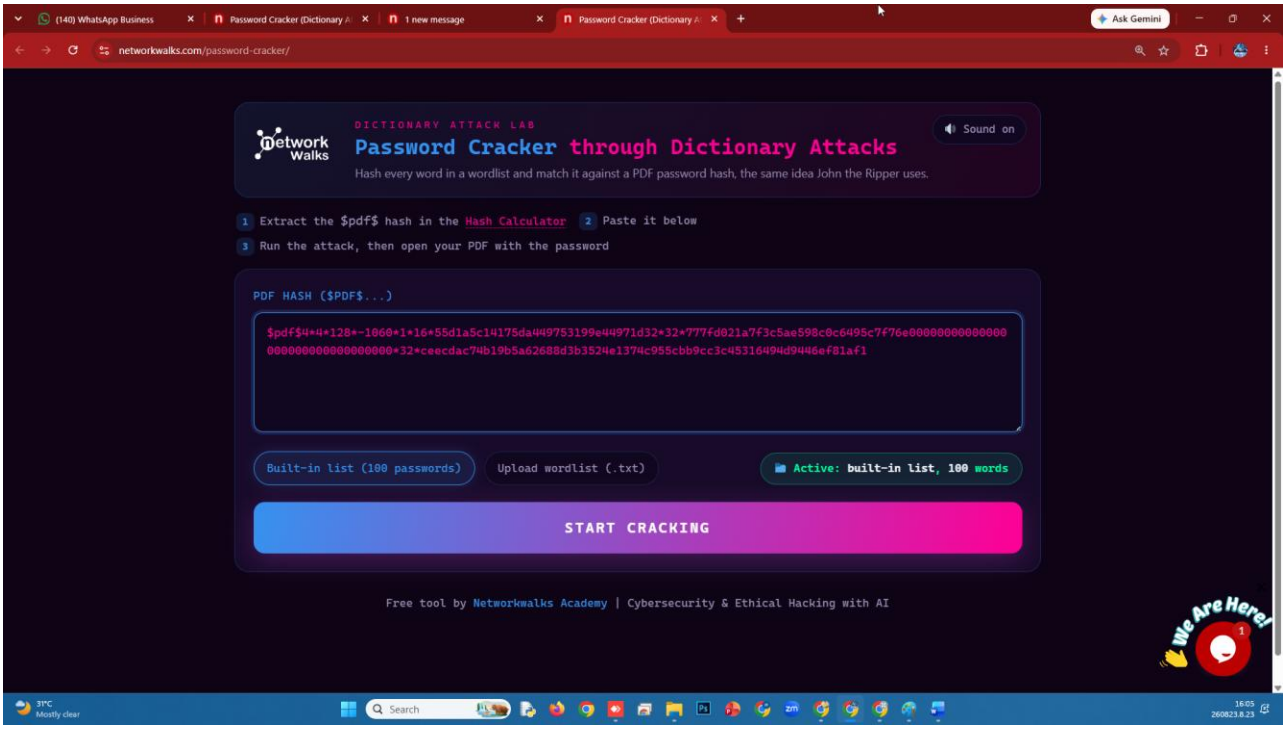
Open the Networkwalks Password Cracker in your web browser:

https://networkwalks.com/password-cracker/



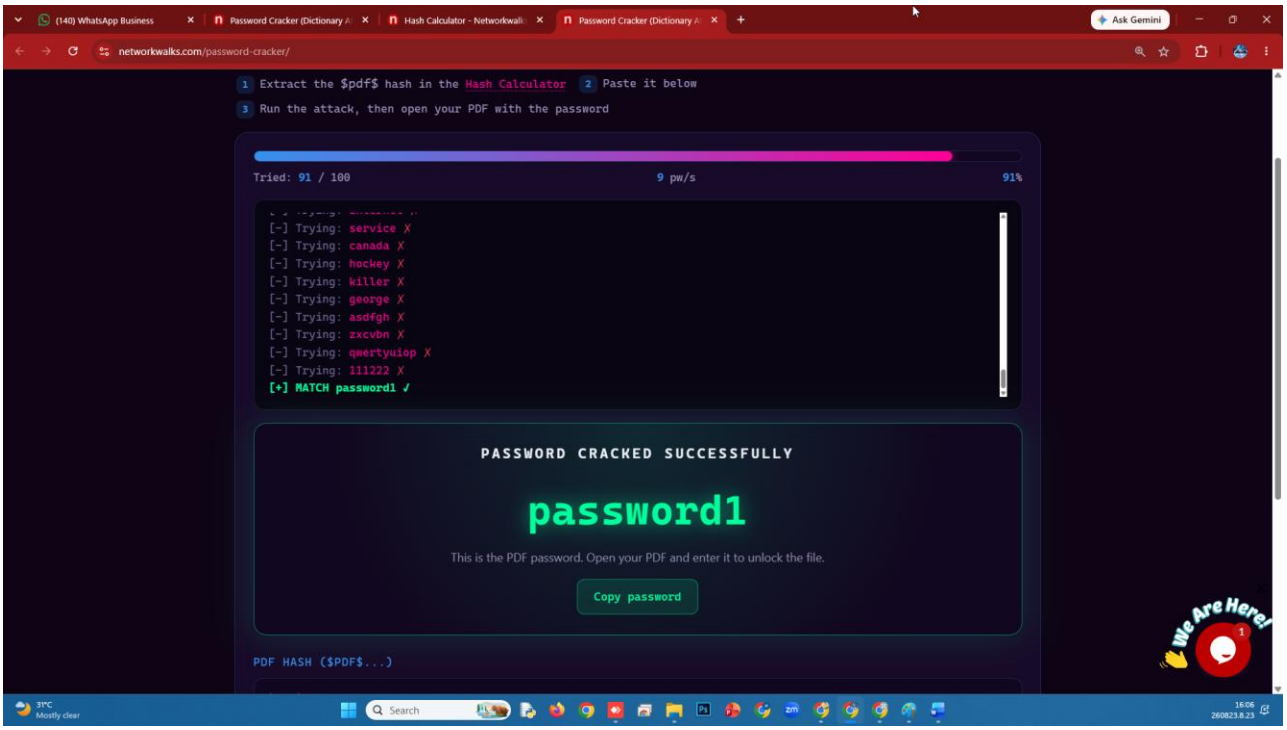
STEP 6

Paste the hash value into the Password Cracker and start the attack. The tool will try different passwords until it finds a match.



STEP 7

Wait for the tool to finish. The cracked password will be shown on the screen.

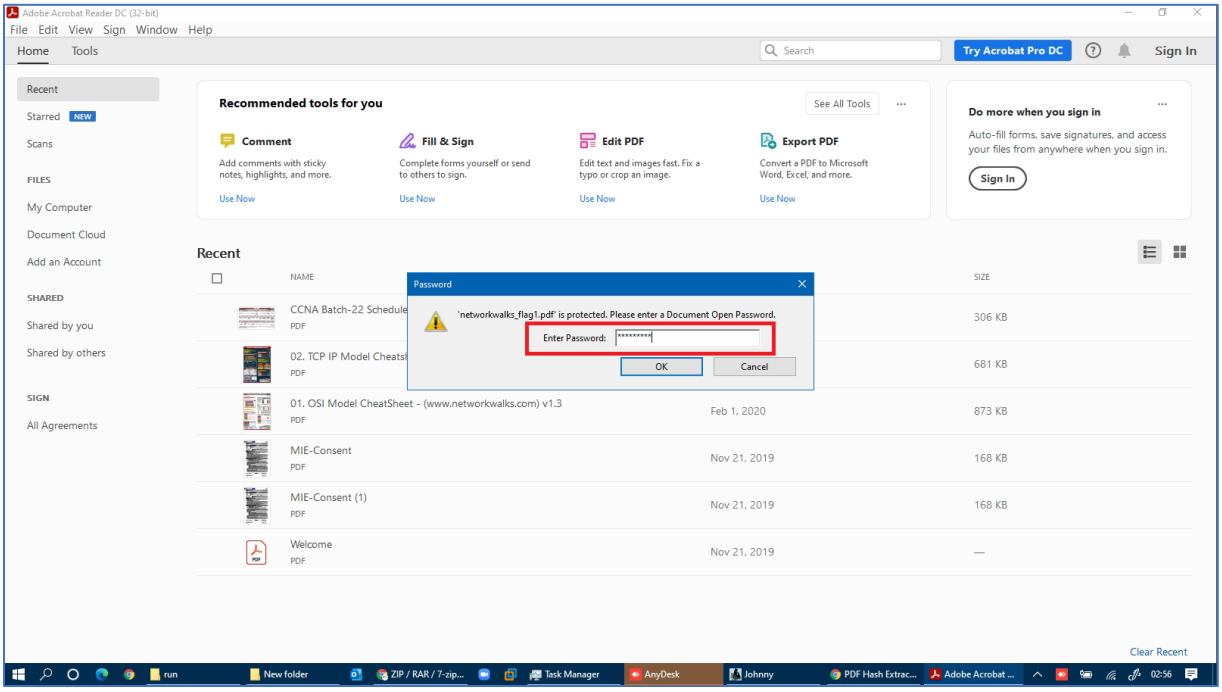


Note: The time taken depends on how simple or complex the password is.

STEP 8

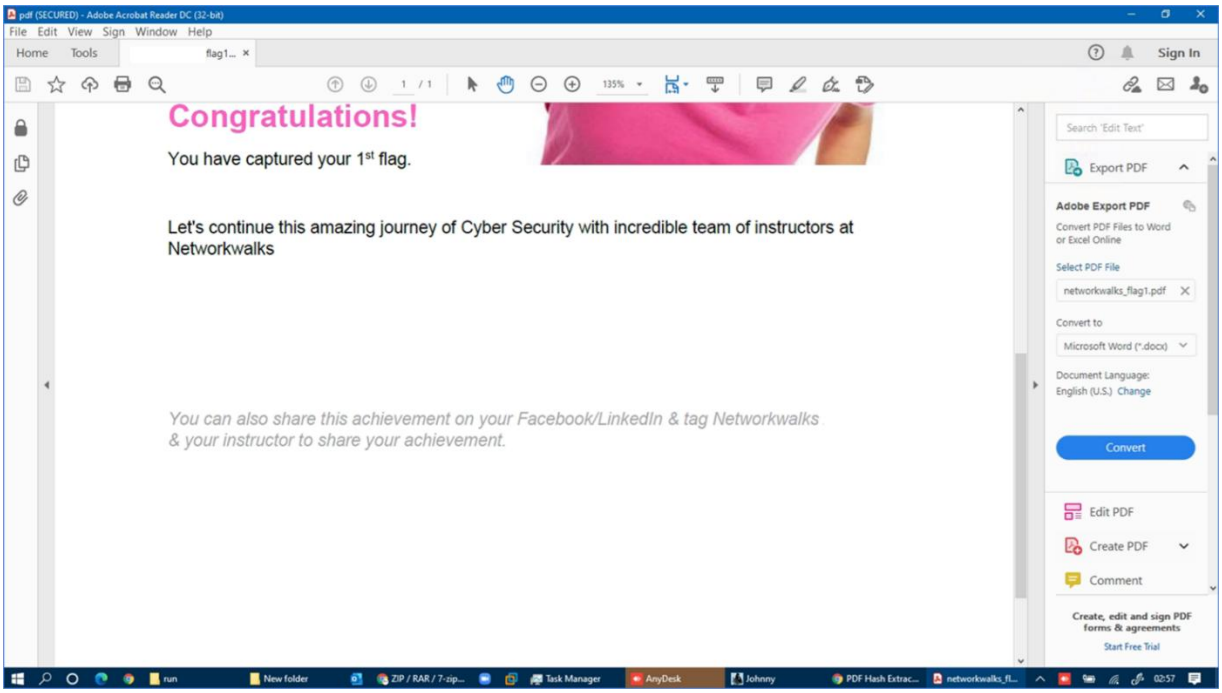
Open the locked PDF file and enter the cracked password.

Enter *password1* (which you have just cracked):



STEP 9

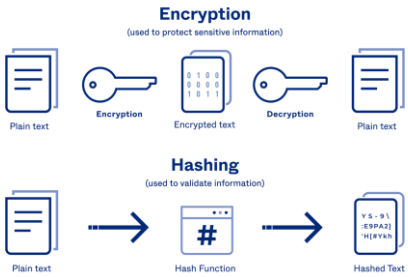
Your PDF file will open. You have completed the lab.



-End-

Extra References & tips

Encryption is a two-way function; what is encrypted can be decrypted with the proper key. Hashing, however, is a one-way function that scrambles plain text to produce a unique message digest, as shown in below.



DO YOU KNOW?

Fact - A simple 8 character password using only lowercase letters can be cracked in minutes, while a strong 12 character mixed password can take many years

Fact - Over 24 billion username and password pairs are available on the dark web from past breaches

Fact - "123456" and "password" are still among the most used passwords in the world every year

Fact - 2025 - Global - A leak of around 183 million Gmail login details showed how old stolen passwords keep circulating for years