TASK 6: CREATE A STRONG PASSWORD AND EVALUATE ITS STRENGTH.

Objective:

To understand the importance of strong passwords by creating, testing, and analyzing them, and learning how complexity affects security.

Procedure:

Step 1. Create Multiple Passwords

Generate at least 6 different passwords with varying complexity levels:

- asdf1234
- Qwer!1234
- . zxcG0192
- ZpMQ^09125
- mlpokn+5786
- /ZpMQ;lkhj^09125

Step 2. Vary Password Characteristics

Use combinations of the following in each password:

- Uppercase letters (A–Z)
- Lowercase letters (a–z)
- Numbers (0–9)
- Symbols (! @, #, etc.)
- Length variation (from 6 to 16+ characters)

Step 3. Test Passwords Using Online Strength Checker

Websites for testing passwords:

- https://password.kaspersky.com
- https://www.security.org/how-secure-is-my-password/

Enter each password and record the feedback and strength rating.

Password Test Results:

Password	Strength Score	Time to Crack	Feedback
asdf1234	Very Weak	Instantly	Lacks symbols, uppercase, length
Qwer!1234	Weak	Three Weaks	Lacks length
. zxcG0192	Strong	Nine Years	Lacks length
ZpMQ^09125	Moderate	Five Years	Lacks length
mlpokn+5786	Moderate	Four Years	Lacks uppercase, length
/ZpMQ;lkhj^09125	Very Strong	41 Trillion Years	Difficult to crack

Tips for strong passwords:

1. Use 12+ characters.
2. Include uppercase, lowercase, numbers, and symbols.
3. Avoid personal info like names or birthdates.
4. Use passphrases (e.g., Gr8!Time2Learn@AI).
5. Don’t reuse passwords across sites.
6. Don’t use dictionary phrases or predictable patterns.

Common Password Attacks:

1. Brute Force Attack

- Tries all possible combinations of characters until the correct password is found.
- Time-consuming but guaranteed to work if no limits are in place.
- **Defense**: Use long, complex passwords and account lockouts after failed attempts.

2. Dictionary Attack

- Uses a precompiled list of common words, phrases, and passwords (like password123, qwerty, admin, etc.).
- Faster than brute force.
- **Defense**: Avoid using real words or common patterns in passwords.

3. Credential Stuffing

- Uses stolen usernames and passwords from past data breaches to try logging into other websites.
- Based on the assumption that users reuse passwords.
- **Defense**: Use unique passwords for every account and enable two-factor authentication (2FA).

4. Phishing

- Tricks the user into revealing their password through fake websites, emails, or messages.
- Doesn’t require guessing the password.
- **Defense**: Don’t click on suspicious links and always verify the sender/source.

5. Keylogging

- Malicious software records every keystroke, including typed passwords.
- **Defense**: Use antivirus software and avoid downloading unknown programs.

6. Rainbow Table Attack

- Uses precomputed hash values of passwords to crack encrypted password databases.
- Faster than brute force if the password is not salted.
- **Defense**: Use strong password hashing algorithms with salts.

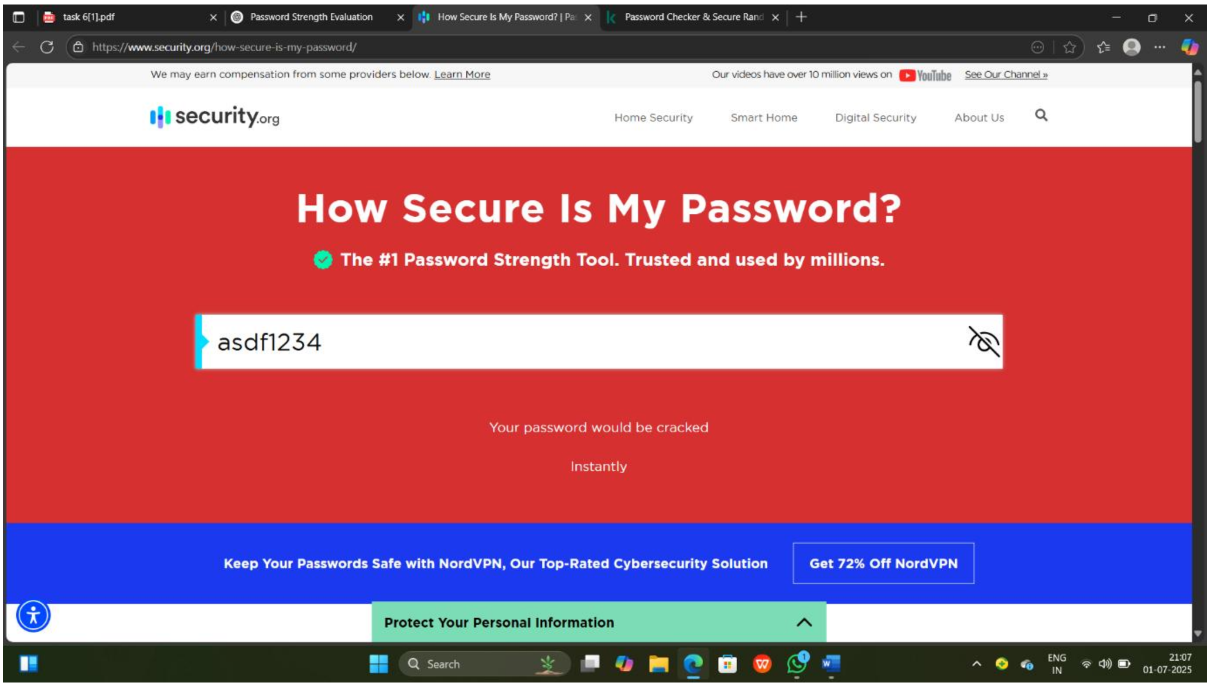
7. Shoulder Surfing

- Physically observing someone typing their password.
- Common in public or shared spaces.
- **Defense**: Be aware of your surroundings; use privacy screens.

8. Man-in-the-Middle (MitM) Attack

- Attacker intercepts data between user and server, including passwords if not encrypted.
- **Defense**: Use HTTPS and secure networks.

Screenshots:



https://www.security.org/how-secure-is-my-password/

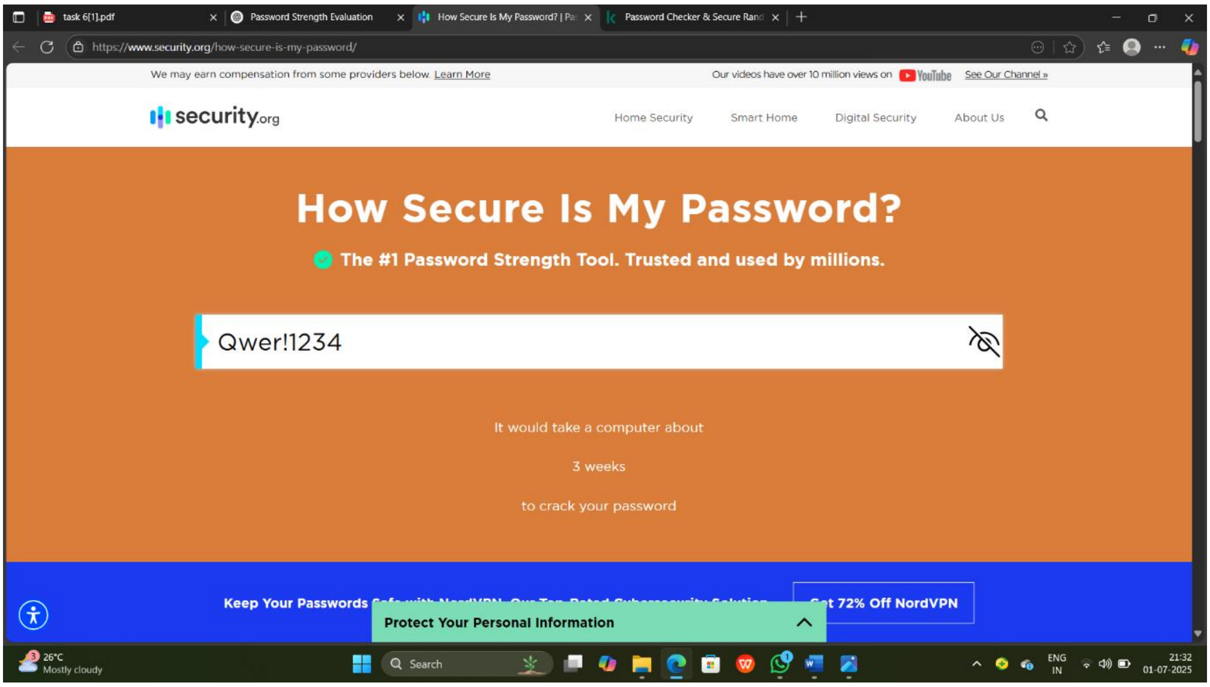
How Secure Is My Password?

The #1 Password Strength Tool. Trusted and used by millions.

asdf1234

Your password would be cracked

Instantly



https://www.security.org/how-secure-is-my-password/

How Secure Is My Password?

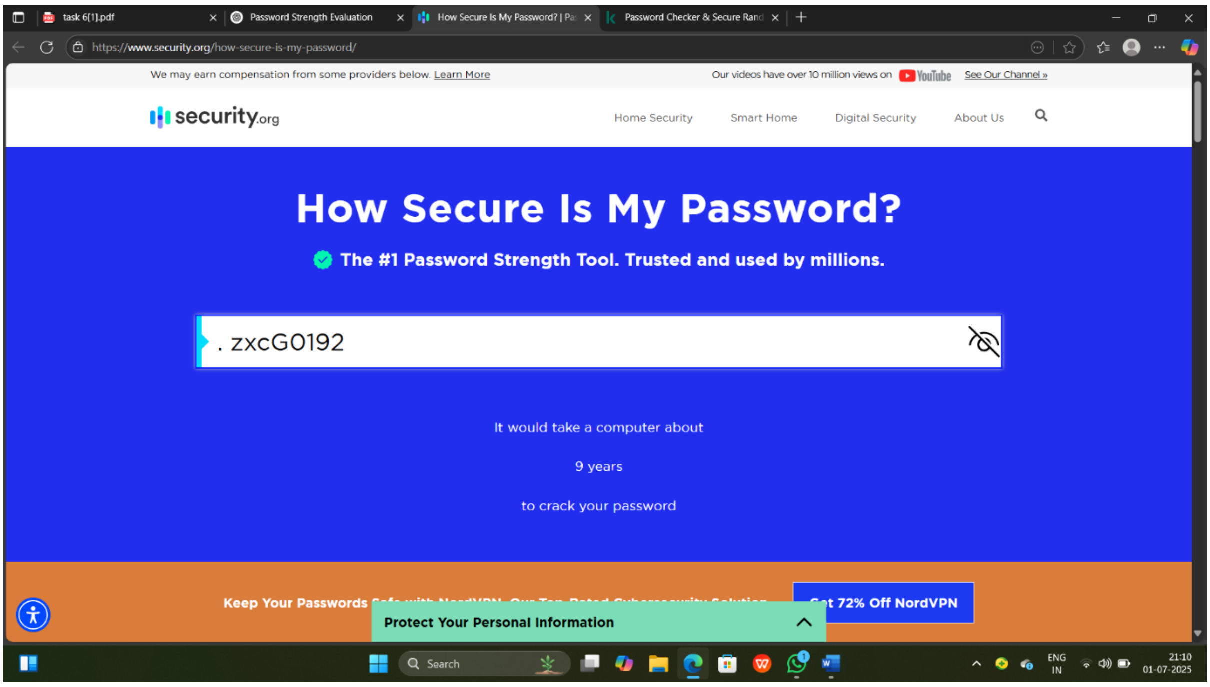
The #1 Password Strength Tool. Trusted and used by millions.

Qwer!1234

It would take a computer about

3 weeks

to crack your password


task 6[1].pdf
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How Secure Is My Password?

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. zxcG0192

It would take a computer about

9 years

to crack your password

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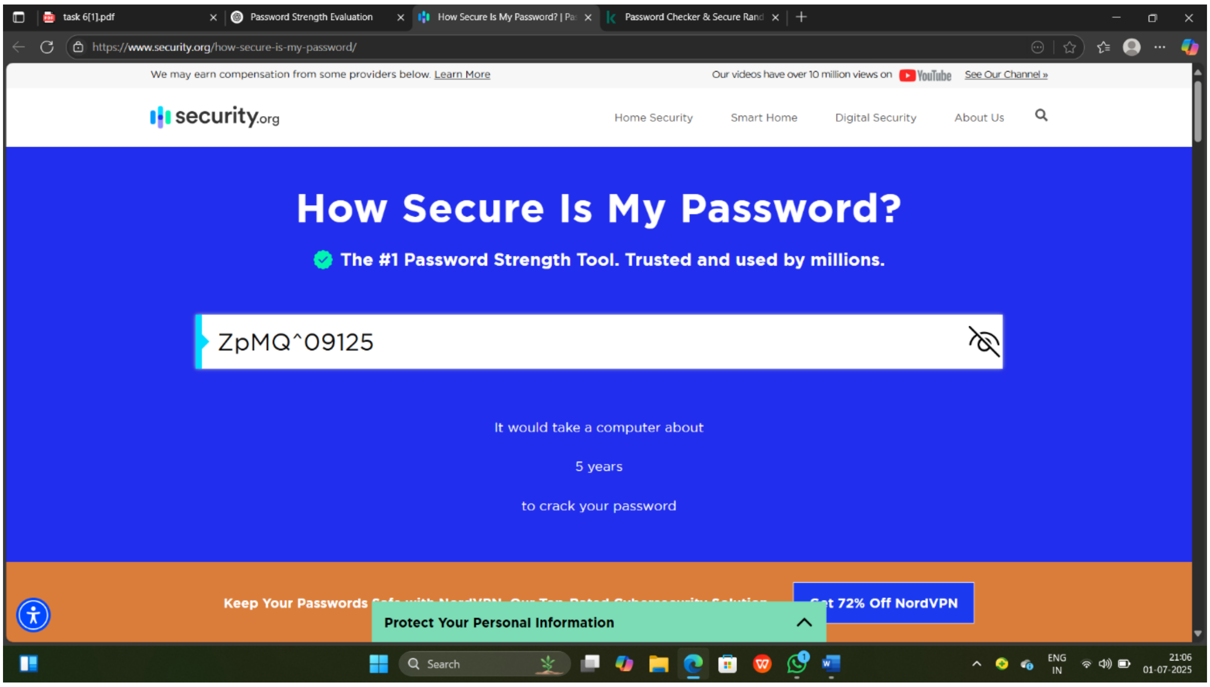
ENG
IN
21:10
01-07-2025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ZpMQ^09125

It would take a computer about

5 years

to crack your password

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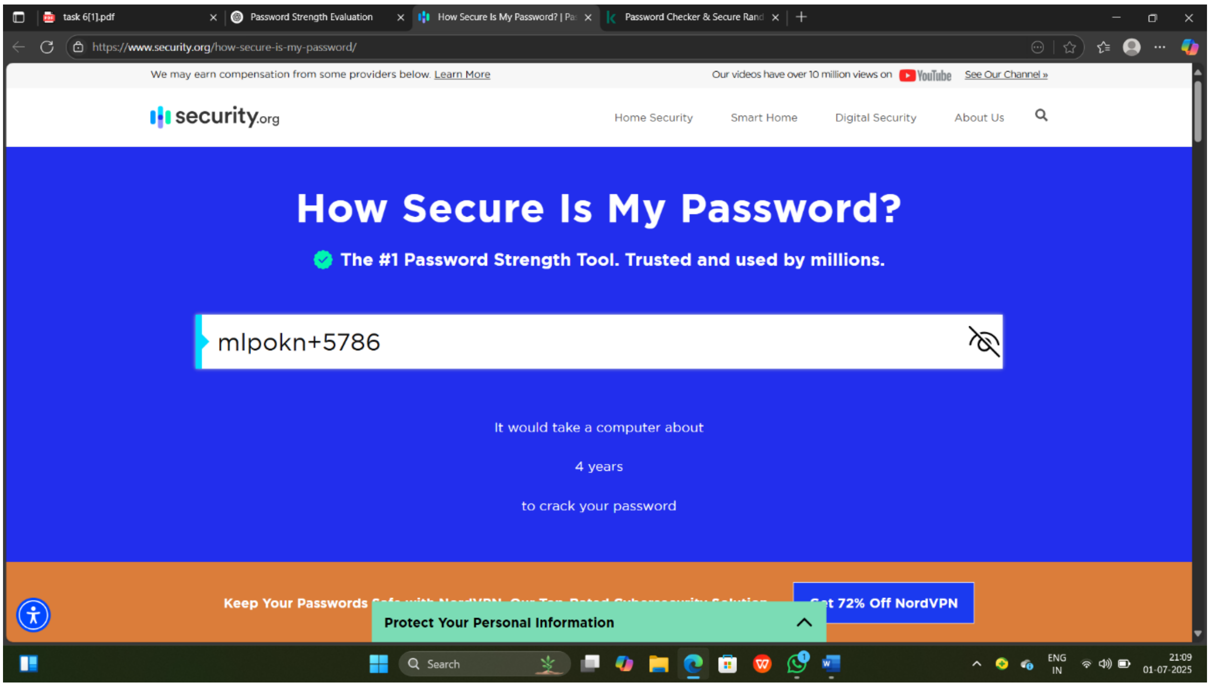

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How Secure Is My Password?

The #1 Password Strength Tool. Trusted and used by millions.

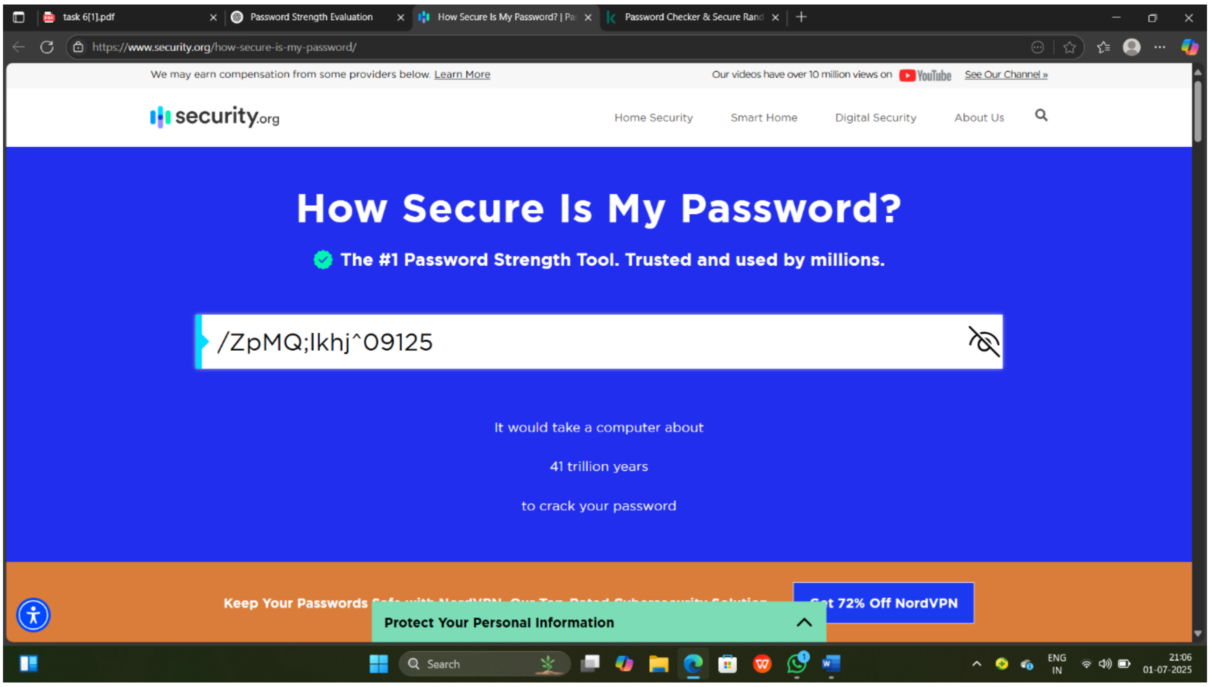
mlpokn+5786

It would take a computer about

4 years

to crack your password

Keep Your Passwords Safe with NordVPN, Our Top Rated Cybersecurity Solution



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security.org

How Secure Is My Password?

The #1 Password Strength Tool. Trusted and used by millions.

/ZpMQ;lkhj^09125

It would take a computer about

41 trillion years

to crack your password

Keep Your Passwords Safe with NordVPN, Our Top Rated Cybersecurity Solution

Conclusion:

Strong passwords are very important for protecting our accounts and personal information. Passwords that are long and use a mix of uppercase, lowercase, numbers, and symbols are much harder to guess or hack. Weak passwords can be cracked in seconds, while strong ones can take years.