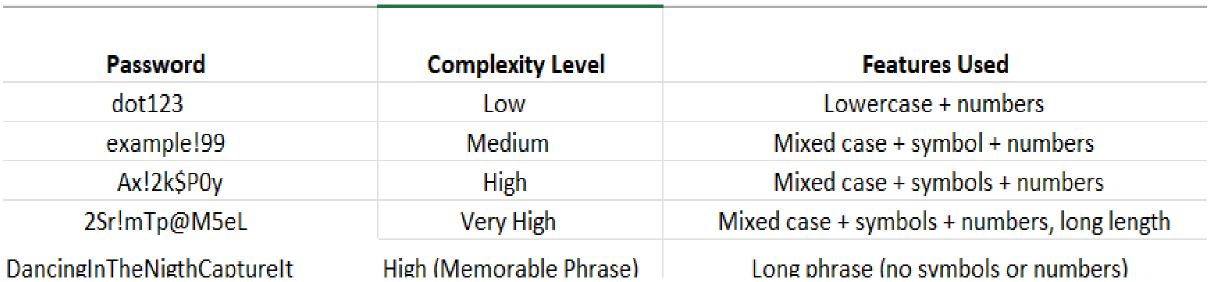
CYBER SECURITY INTERNSHIP

Task 6: Create a Strong Password and Evaluate Its Strength

Objective: Understand what makes a password strong and test it against password strength tools

Tools: Online free password strength checkers (e.g. passwordmeter.com)

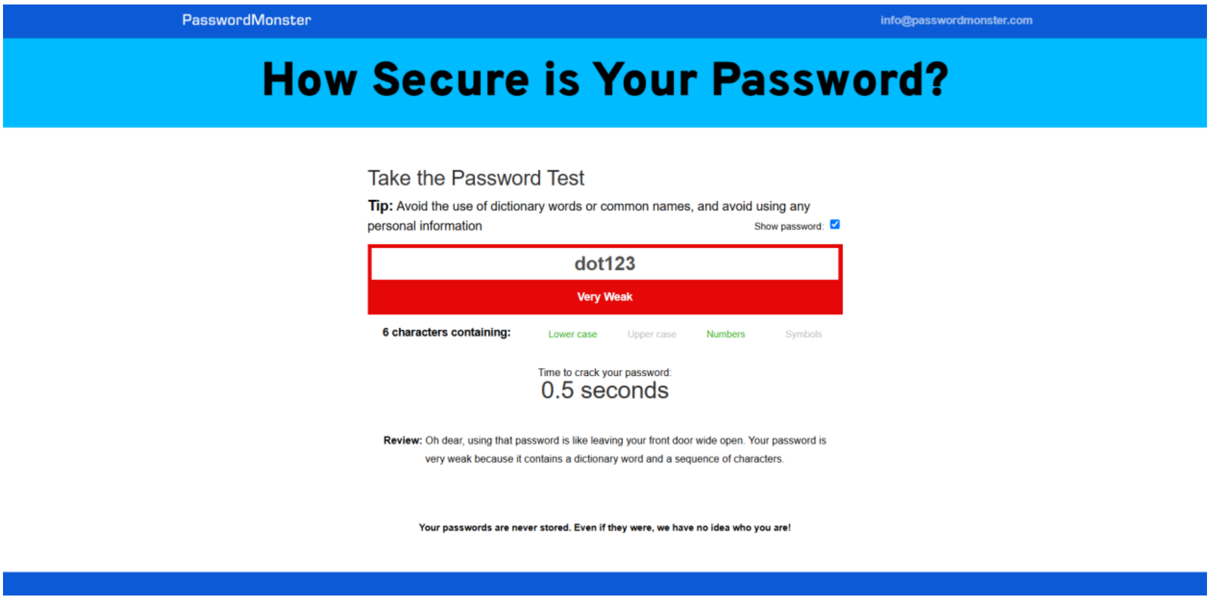
1–2. Generate Multiple Passwords of Varying Complexity



Password	Complexity Level	Features Used
dot123	Low	Lowercase + numbers
example!99	Medium	Mixed case + symbol + numbers
Ax!2k$P0y	High	Mixed case + symbols + numbers
2Sr!mTp@M5eL	Very High	Mixed case + symbols + numbers, long length
DancingInTheNigthCaptureIt	High (Memorable Phrase)	Long phrase (no symbols or numbers)

3–4. Test Passwords on a Strength Checker

Tool Used: Password Strength Meter



PasswordMonster info@passwordmonster.com

How Secure is Your Password?

Take the Password Test

Tip: Avoid the use of dictionary words or common names, and avoid using any personal information

Show password: ☑

dot123

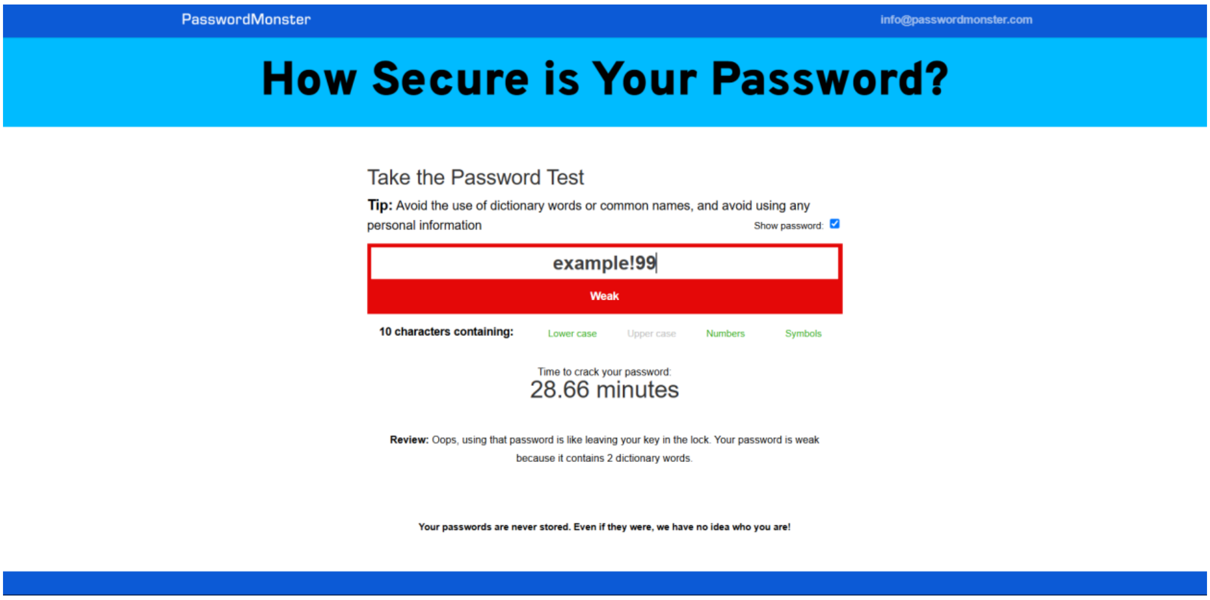
Very Weak

6 characters containing: Lower case Upper case Numbers Symbols

Time to crack your password:
0.5 seconds

Review: Oh dear, using that password is like leaving your front door wide open. Your password is very weak because it contains a dictionary word and a sequence of characters.

Your passwords are never stored. Even if they were, we have no idea who you are!



PasswordMonster info@passwordmonster.com

How Secure is Your Password?

Take the Password Test

Tip: Avoid the use of dictionary words or common names, and avoid using any personal information

Show password: ☑

example!99

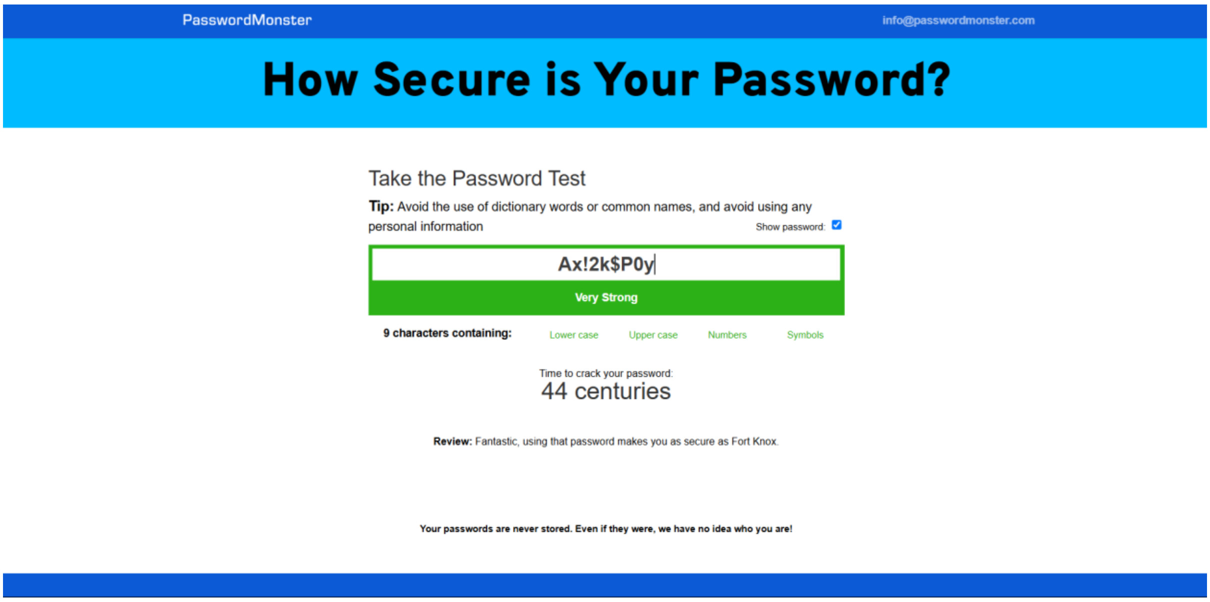
Weak

10 characters containing: Lower case Upper case Numbers Symbols

Time to crack your password:
28.66 minutes

Review: Oops, using that password is like leaving your key in the lock. Your password is weak because it contains 2 dictionary words.

Your passwords are never stored. Even if they were, we have no idea who you are!



PasswordMonster info@passwordmonster.com

How Secure is Your Password?

Take the Password Test

Tip: Avoid the use of dictionary words or common names, and avoid using any personal information

Show password: ☑

Ax!2k$P0y

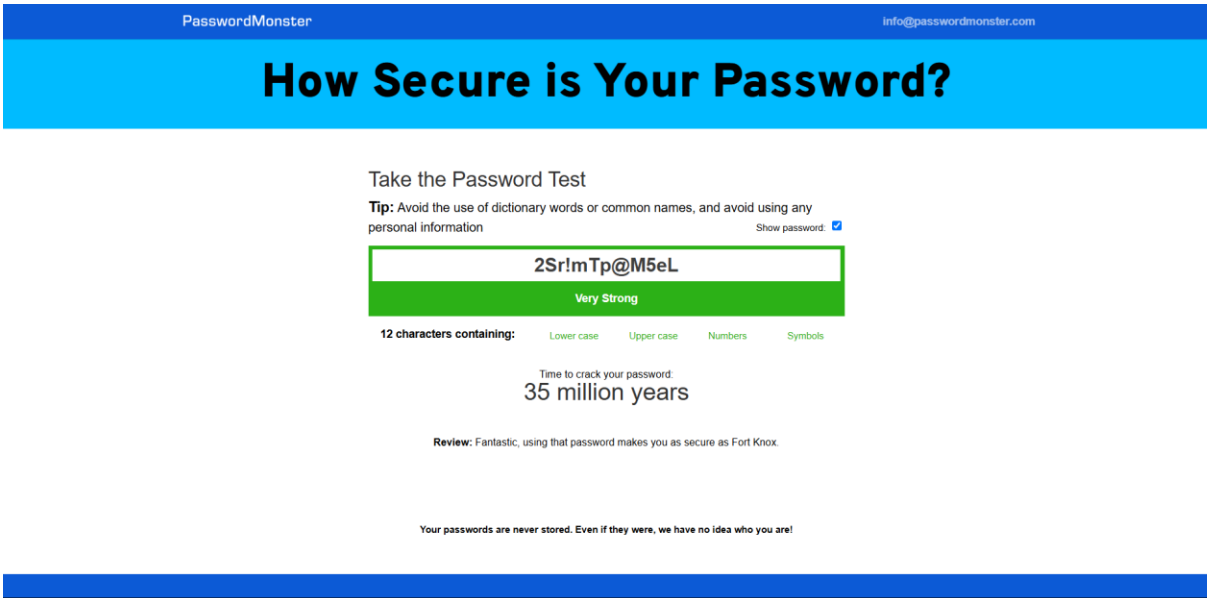
Very Strong

9 characters containing: Lower case Upper case Numbers Symbols

Time to crack your password:
44 centuries

Review: Fantastic, using that password makes you as secure as Fort Knox.

Your passwords are never stored. Even if they were, we have no idea who you are!



PasswordMonster info@passwordmonster.com

How Secure is Your Password?

Take the Password Test

Tip: Avoid the use of dictionary words or common names, and avoid using any personal information

Show password: ☑

2Sr!mTp@M5eL

Very Strong

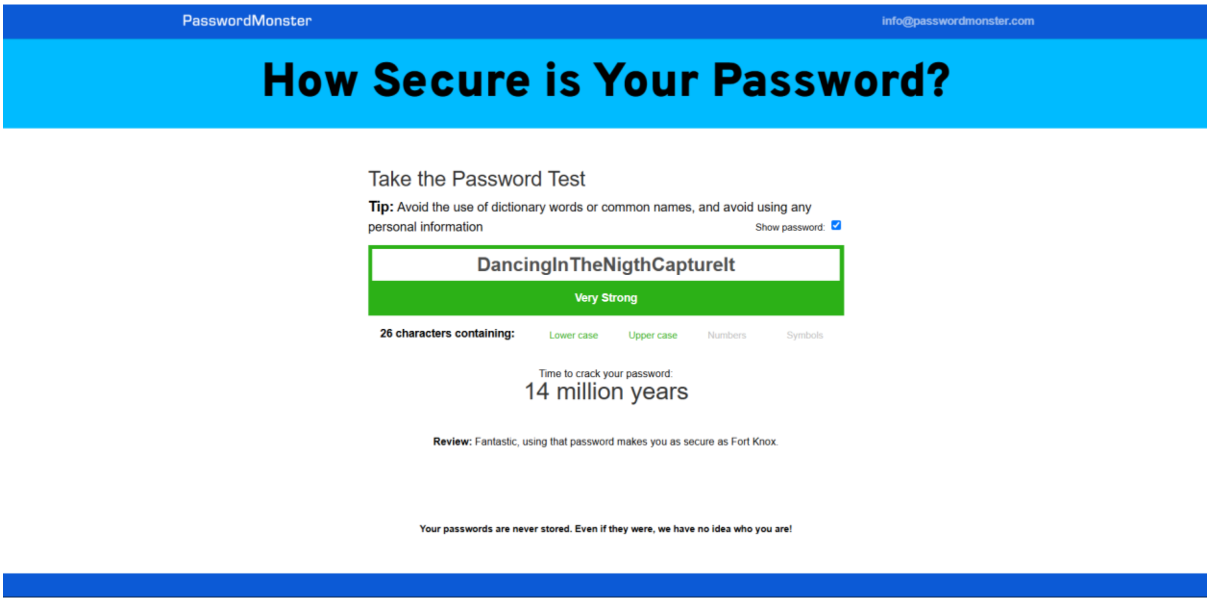
12 characters containing: Lower case Upper case Numbers Symbols

Time to crack your password:

35 million years

Review: Fantastic, using that password makes you as secure as Fort Knox.

Your passwords are never stored. Even if they were, we have no idea who you are!



PasswordMonster info@passwordmonster.com

How Secure is Your Password?

Take the Password Test

Tip: Avoid the use of dictionary words or common names, and avoid using any personal information

Show password: ☑

DancingInTheNigthCaptureIt

Very Strong

26 characters containing: Lower case Upper case Numbers Symbols

Time to crack your password:

14 million years

Review: Fantastic, using that password makes you as secure as Fort Knox.

Your passwords are never stored. Even if they were, we have no idea who you are!

Password	Estimated Strength	Feedback
dot123	Weak	"Too short and predictable; easy to guess"
example!99	Moderate	"Better, but still vulnerable to common attacks"
Ax!2k$P0y	Strong	"Uncommon combination of characters; safer"
2Sr!mTp@M5eL	Very Strong	"Difficult to crack, especially with length"
DancingInTheNigthCaptureIt	Strong	"Strong due to length, even though no symbols"

5. Best Practices for Strong Passwords

- Use 12+ characters whenever possible.
- Mix uppercase, lowercase, numbers, and symbols.
- Avoid dictionary words or common phrases, unless length is extreme (passphrases).
- Do not reuse passwords across sites.
- Consider using a password manager to store complex passwords securely.

6. Tips Learned from Evaluation

- Password length contributes more to strength than symbols alone.
- Randomness is more effective than clever patterns (e.g., P@ssw0rd123 is weak).
- Passphrases can be both strong and memorable.
- Even complex-looking passwords may be weak if based on patterns or common substitutions.

7. Common Password Attacks

- Brute Force Attack: Tries every possible combination. Longer and more complex passwords make this attack impractical.
- Dictionary Attack: Uses lists of common words and phrases. Passwords like "banana88" are vulnerable.
- Credential Stuffing: Uses leaked usernames/passwords from other sites.
- Phishing: Trick users into revealing passwords.

8. Summary: How Password Complexity Affects Security

Password complexity is a major deterrent against automated attacks like brute-force and dictionary attacks. The more characters, types of characters, and randomness used, the harder it is for an attacker to guess or compute the password. Complexity increases entropy, which directly correlates with password strength and resistance to attacks.