📄 TASK 6 REPORT

Create a Strong Password and Evaluate Its Strength

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Date: 18-12-2025

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1. Objective

The objective of this task is to understand what makes a password strong and to evaluate the strength of different passwords using an online password strength checker.

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2. Tools Used

- Online free password strength checker (Security.org – How Secure Is My Password)

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3. Passwords Tested and Results

Password	Time to Crack	Strength
password123	1 month	Weak
Password@123	34 thousand years	Medium
P@ssW0rd!789	34 thousand years	Strong
T#9kLp@21!ZxQ	2 million years	Very Strong

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4. Password Analysis

password123:
This password is weak because it uses a common word and predictable number sequence. It can be easily cracked using dictionary attacks.

Password@123:
This password is moderately strong as it includes uppercase letters, lowercase letters, numbers, and a symbol, but it still follows a common pattern.

P@ssW0rd!789:
This password is strong because it contains a mix of uppercase letters, lowercase letters, numbers, and symbols, making it harder to crack.

T#9kLp@21!ZxQ:
This is a very strong password due to its long length and random combination of uppercase letters, lowercase letters, numbers, and symbols.

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5. Common Password Attacks

Brute Force Attack

In a brute force attack, the attacker tries all possible combinations of characters until the correct password is found. Longer and complex passwords take much more time to crack.

Dictionary Attack

In a dictionary attack, attackers use a list of common words and passwords. Simple passwords are highly vulnerable to this type of attack.

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6. Best Practices for Creating Strong Passwords

- Use at least 12–16 characters
- Combine uppercase letters, lowercase letters, numbers, and symbols
- Avoid using personal information
- Do not use common words
- Use different passwords for different accounts

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7. Conclusion

This task shows that password complexity directly affects security. Strong passwords take significantly more time to crack and provide better protection against cyber attacks. Using strong and unique passwords is essential for online security.