# **Password Strength Analysis**

### **Passwords and Components**

apple123 - Lowercase, numbers

2. Apple123 - Uppercase, lowercase, numbers

3. Apple123! - Uppercase, lowercase, numbers, symbol

4. Ap!2e7K@ - Uppercase, lowercase, numbers, symbols

5. aP9!r\$Lz!w2q% - Uppercase, lowercase, numbers, symbols

6. CorrectHorseBatteryStaple - Long phrase, only words

7. C0mpl3x!tY@2025\* - Complex, diverse character set

## **Password Strength Feedback**

apple123 - 1/5 - Too common, lacks complexity

Apple123 - 2/5 - Slightly better, still predictable

Apple123! - 3/5 - Good mix, but short length

Ap!2e7K@ - 4/5 - Strong, random, but can be improved with length

aP9!r\$Lz!w2q% - 5/5 - Excellent, very strong and hard to guess

CorrectHorseBatteryStaple - 4/5 - Good due to length, but predictable words

C0mpl3x!tY@2025\* - 5/5 - Excellent, diverse, includes year, symbols, and complexity

#### **Best Practices**

- Use longer passwords (12+ characters).
- Include a mix of uppercase, lowercase, numbers, and special characters.
- Avoid personal information and dictionary words.
- Use password managers to store unique passwords.
- Regularly update passwords.

#### **Password Attacks**

- Brute Force: Tries all combinations.
- Dictionary: Uses common wordlists.
- Credential Stuffing: Uses leaked credentials.
- Phishing: Tricks users into giving passwords.
- Keylogging: Captures keystrokes.

## **Password Complexity Summary**

Complex passwords take longer to crack and resist attacks better.

Adding more characters and types (symbols, numbers) significantly increases security.

Unpredictability and diversity in characters are key.

