

# How to Determine Password Strength

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## Overview

This document describes how cPanel & WHM determine password strength. This document also explains how to create passwords of different strengths so that you can meet various minimum password strength requirements.



### Notes:

- We **strongly** recommend that you use the *Password Generator* feature whenever it is available. For more information, read our [Password and Security](#) documentation.
- This document uses characters found on the ANSI standard US keyboard. Results for other languages and keyboard configurations may vary.

## Length and complexity

Two factors determine a password's strength: length and complexity. A password's length is determined by the number of characters in the password. For example, the password `asdf1234` has a length of eight characters. Most cPanel & WHM passwords require a minimum password length. An increase in password length usually increases the password's strength.

When you combine letters, numbers, and symbols in a password you increase the password's complexity. A higher complexity yields a higher password strength. For example, the password `cpanelisgreat` has a password strength of 25 while `cP4n3LIsgR3aT` has a password strength of 100. When you repeat the same character, use dictionary based words, or use consecutive letters or numbers, you do not increase password strength. For example, `12345678` has a password strength of 1 while `18273645` has a password strength of 86.

## Categories

Four categories exist for the possible characters in a password.

Description	Example
Lowercase letter (a — z)	a
Capital letter (A — Z)	A
Number (0-9)	1
Symbol (!@#\$%^&*()~`-_=+{[]}\:;'"<,.>/?)	\$

### Notes:

- Some symbols yield a higher strength valuation than others.
- Symbols are also known as special characters.

## Combinations

The following table provides some example passwords of different lengths and complexities. For brevity, this table does not include all potential character combinations.



### Warning:

Do **not** use the examples provided verbatim. Use of these examples could create a security risk.

Description	Example	Strength	Length	Lowercase (a — z)	Capital (A — Z)	Number (1-9)	Symbol
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Repeating character	aa, aaa, aaaa ll, lll, llll	1	2 —				
Consecutive characters	12345678 abcdefgh	1	2 —				
Combination lowercase and capital letter	aA	10	2	✓	✓		
Combination lowercase letter and number	a1	18	2	✓		✓	
Combination capital letter and number	A1	18	2		✓	✓	
Combination lowercase letter and symbol	a#	20	2	✓			✓
Combination capital letter and symbol	A#	20	2		✓		✓
Combination number and symbol	1#	26	2			✓	✓
Combination lowercase letter, number, and symbol	a#1	34	3	✓		✓	✓
Combination capital letter, number, and symbol	A#1	34	3		✓	✓	✓
Example combination	12345luggage	54	12	✓		✓	
Example combination	A1b2c3%	74	7	✓	✓	✓	✓
Example combination	cP4n3LI5Gr3aT	100	11	✓	✓	✓	✓
Example combination	A1b2c3%?	100	8	✓	✓	✓	✓



**Note:**

You can use the *Get Password Strength* feature to test the strength of any password. For more information, read our [WHM API 1 Functions - get\\_password\\_strength](#) documentation.

## Additional documentation

- [How to Determine Password Strength](#)
- [How to Reset a cPanel Account Password](#)
- [How to Reset a cPanel Subaccount Password](#)
- [Subaccount Initial Password Guide](#)
- [Basic Security Concepts](#)