

# Password Strength Analyzer - Tool usage

## Overview

The Password Strength Analyzer is a Python-based tool that evaluates the strength of user passwords.

It checks for essential security rules such as length, uppercase and lowercase letters, digits, and special characters.

The tool also displays missing criteria, helping users create more secure passwords.

## Features

Real-time Strength Check – Classifies passwords as Weak, Medium, or Strong.

Detailed Feedback – Lists the exact rules a password fails to meet.

Hidden Input (Optional) – Uses Python's `getpass` module to prevent password display in the console.

## System Requirements

Python 3.13.6

Any text editor or IDE (e.g., VS Code, Jupyter, or terminal/command prompt/kali linux)

## How to Run

1. Save the script as `password_checker.py`.
2. Open a terminal/command prompt in the script's directory.
3. Run the command:

```
python password_checker.py
```

4. Enter a password when prompted (input remains hidden if `getpass` is enabled).
5. View the output showing:
  - Strength level (Weak / Medium / Strong)
  - List of missing criteria (if any)

```
(kali㉿kali)-[~/python_tool]
$ python password_checker.py
Enter a password to check: weakpassword

Password Strength: Weak !
Improve by fixing:
- x At least 1 uppercase letter
- x At least 1 digit
- x At least 1 special character (!@#$ etc.)

(kali㉿kali)-[~/python_tool]
$ python password_checker.py
Enter a password to check: Hello123

Password Strength: Medium ⚠
Improve by fixing:
- x At least 1 special character (!@#$ etc.)

(kali㉿kali)-[~/python_tool]
$ python password_checker.py
Enter a password to check: PeaKed@200

Password Strength: Strong ✓
Great! Your password meets all the criteria.

(kali㉿kali)-[~/python_tool]
$
```

## Use Cases

- Personal password testing before creating new accounts
- Security demonstrations or classroom exercises
- Integrating into other applications for password policy checks