

# Password Strength Analyzer & Wordlist Generator

This application is a dual-purpose security tool designed for both evaluating password strength and generating targeted wordlists for penetration testing and password recovery.

It offers both a Command Line Interface (CLI) and a Graphical User Interface (GUI).

## 1. Password Strength Analyzer:

- Uses zxcvbn algorithm to score password strength.
- Estimates crack time and gives security feedback.
- Provides password preview toggle in GUI.

## 2. Custom Wordlist Generator:

- Accepts inputs like name, birthdate, pet name, favorite book, and other optional info.
- Applies leetspeak, capitalization, and year-based permutations.
- Saves output wordlist as a .txt file with timestamped filename.
- Prompts before overwriting files and opens saved file automatically.

## 3. GUI Built with Tkinter:

- Clean tabbed interface for generation and analysis.
- Realtime result display and wordlist generation.

### Project Structure:

- app/
  - analyzer.py # Password analysis using zxcvbn
  - generator.py # Wordlist generator with permutations
  - ui\_cli.py # CLI version (main entry point)
  - gui\_main.py # GUI launcher using tkinter
- wordlists/ # Output directory for saved wordlists
- main.py # Entrypoint for CLI

- requirements.txt      # Python dependencies

#### Usage (CLI):

python main.py analyze --password "YourPasswordHere"

python main.py generate --inputs John 1995 Puppy --other BookName --output custom\_list.txt

#### Usage (GUI):

Run gui\_main.py using: python app/gui\_main.py

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