

# Password Strength Analyzer with Custom Wordlist Generator

## Introduction

This project builds a Password Strength Analyzer that evaluates passwords using entropy calculations and the zxcvbn estimator, and a Custom Wordlist Generator that produces focused wordlists from user-provided personal hints.

## Abstract

The tool helps users understand password robustness and generates attack-specific wordlists for security testing.

## Tools Used

- Python
- argparse, datetime, itertools, re
- zxcvbn (optional)
- tkinter (optional GUI)

## Steps Involved in Building the Project

1. Analyze password strength using entropy and zxcvbn.
2. Collect user hints (names, dates, pets).
3. Generate permutations with cases, leetspeak, and appended years.
4. Deduplicate and filter.
5. Export as .txt for cracking tools.
6. Optional GUI with Tkinter.

## Conclusion

The project provides both educational password analysis and a practical wordlist generator useful for interviews and cybersecurity exercises.