



Password Analyzer & Wordlist Generator



Introduction

This project involves building a user-friendly GUI tool that helps analyze the strength of passwords ✅ and generate custom wordlists 📄 based on user inputs. It serves as a helpful utility for security enthusiasts, penetration testers, and learners interested in cybersecurity 🌐.



Abstract

The Password Analyzer & Wordlist Generator simplifies the process of evaluating password strength and generating targeted wordlists for use in security testing 🚀. By taking inputs like name, date of birth, and pet name 🐕, it applies leetspeak transformations and appends years (1990–2030) to create a comprehensive wordlist. It also provides real-time feedback using the zxcvbn library 🔧.



Tools Used

- Python Programming Language 🐍
- Tkinter (for GUI development) 🎨
- zxcvbn (for password analysis) 🔍
- ReportLab (for PDF reports) 📄



Steps Involved in Building the Project

1. ✅ GUI Design using Tkinter.
2. 🔍 Implement password strength analysis using zxcvbn.
3. 📄 Create wordlist generation logic combining leetspeak and years.
4. 💾 Enable saving the wordlist to a file.
5. 🌈 Add light/dark mode and font size options.
6. 📦 Package the tool for easy use.



Sample User Interface

Password Analyzer & Wordlist Generator

Password: *****

Name: abcd

Date of Birth (e.g. 1990): 2025

Pet Name: alpha

Save Location: C:/Users/Harsh Shinde/OneDrive/Desktop/wordlist.txt Browse

Switch to Light Mode

Font Size: 13

Analyze & Generate Wordlist

Save Wordlist

Password Score: 2/4
Crack Time (Online): 12 days
Feedback: Sequences like "abcd" or "6543" are easy to guess.
Suggestions: Add another word or two. Uncommon words are better.; Avoid sequences.

Generated Wordlist:

- 2025
- 20251990
- 20251991
- 20251992
- 20251993
- 20251994
- 20251995
- 20251996
- 20251997



Sample Generated Wordlist

```
File Edit View H1 B I ↺ ↻
4bcd
4bcd1990
4bcd1991
4bcd1992
4bcd1993
4bcd1994
4bcd1995
4bcd1996
4bcd1997
4bcd1998
4bcd1999
4bcd2000
4bcd2001
4bcd2002
4bcd2003
4bcd2004
4bcd2005
4bcd2006
4bcd2007
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4bcd2009
4bcd2010
4bcd2011
4bcd2012
4bcd2013
4bcd2014
4bcd2015
4bcd2016
4bcd2017
4bcd2018
4bcd2019
4bcd2020
4bcd2021
4bcd2022
4bcd2023
4bcd2024
4bcd2025
4bcd2026
4bcd2027
```



Conclusion

This project is simple, fun 🎉, and effective ⚡. It bridges the gap between beginners and experts by providing an intuitive way to analyze password security and create useful wordlists 🛡️.