**Final Project Report**

Project Title: Password Strength Analyzer with Custom Wordlist Generator

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Project Type: Security Tool - Python GUI Application

Objective:

To analyze password strength and generate custom wordlists using personal inputs. The tool provides a GUI interface using Tkinter, evaluates password security with zxcvbn, and creates realistic wordlists using patterns and transformations.

Tools & Technologies Used:

* Python 3.x
* zxcvbn
* Tkinter
* Regex & itertools

Key Features:

* Score from 0 to 4 with crack time estimate
* Strength label and color-coded progress bar
* Show/Hide password option
* Custom wordlist generation with personal info, permutations, leetspeak, year patterns- Wordlist exported to enhanced\_wordlist.txt

Sample Output:

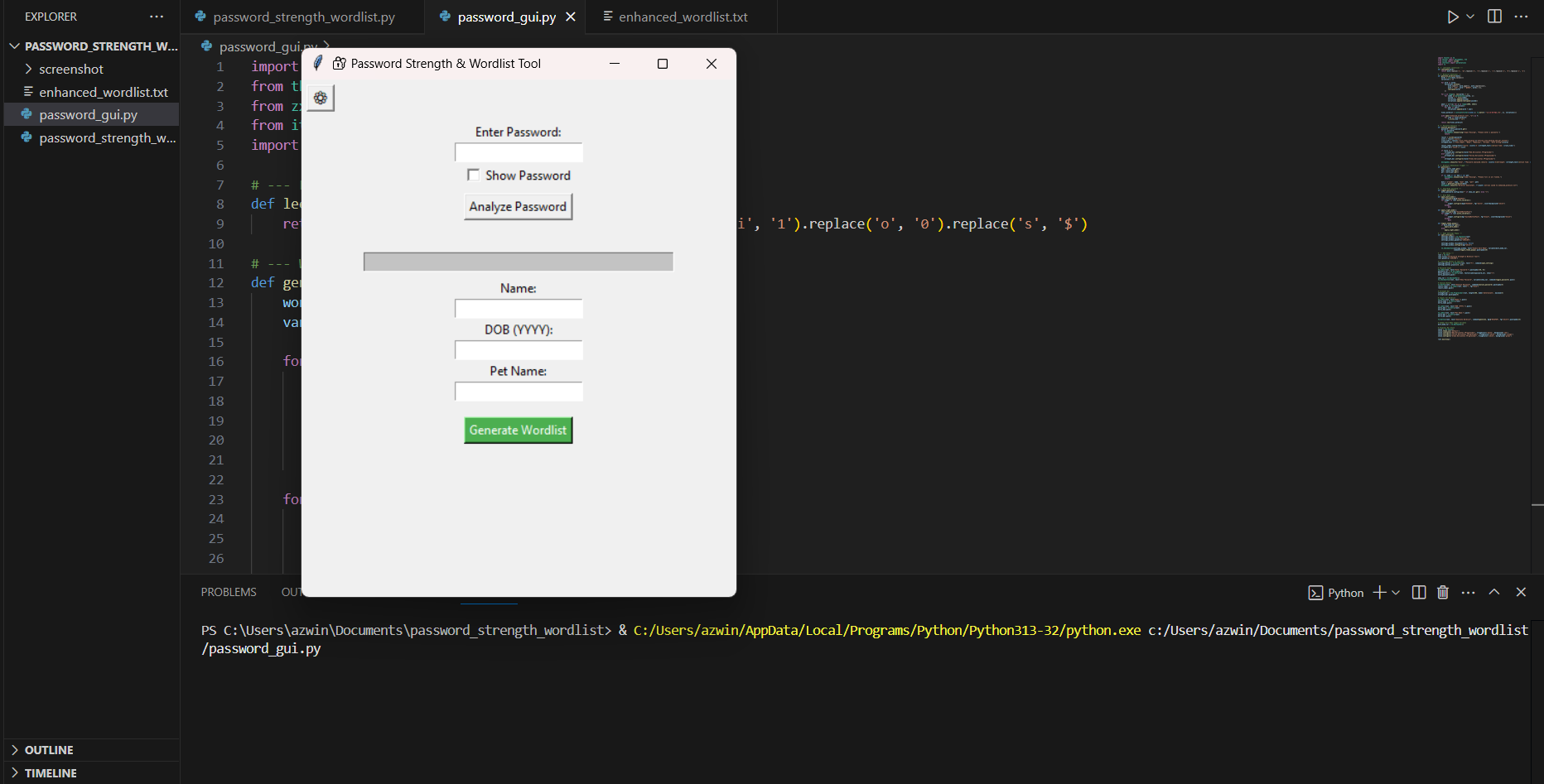
Password: Surya@123

Score: 2/4 (Moderate)

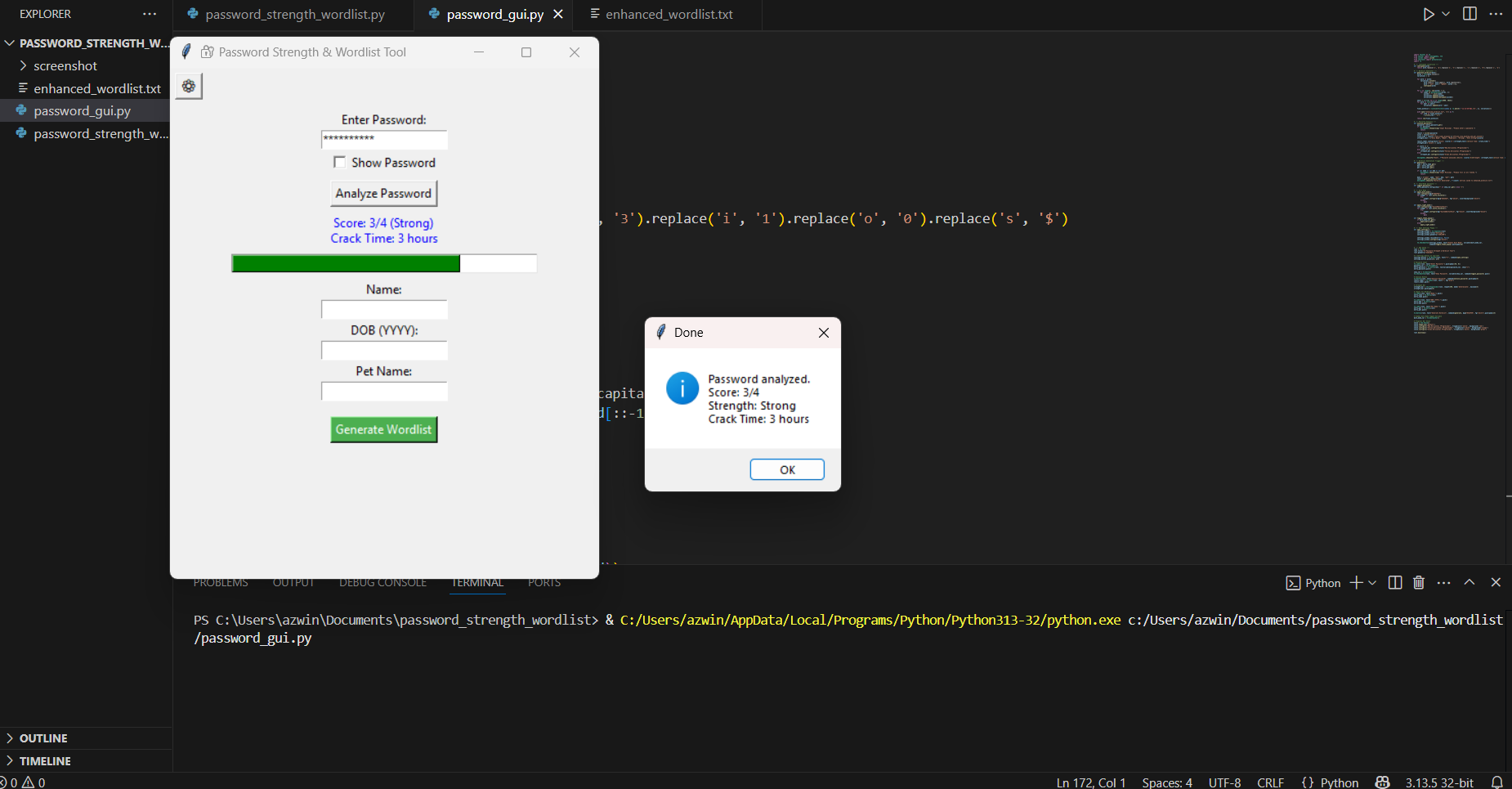
Crack Time: 2 minutes

Screenshots:

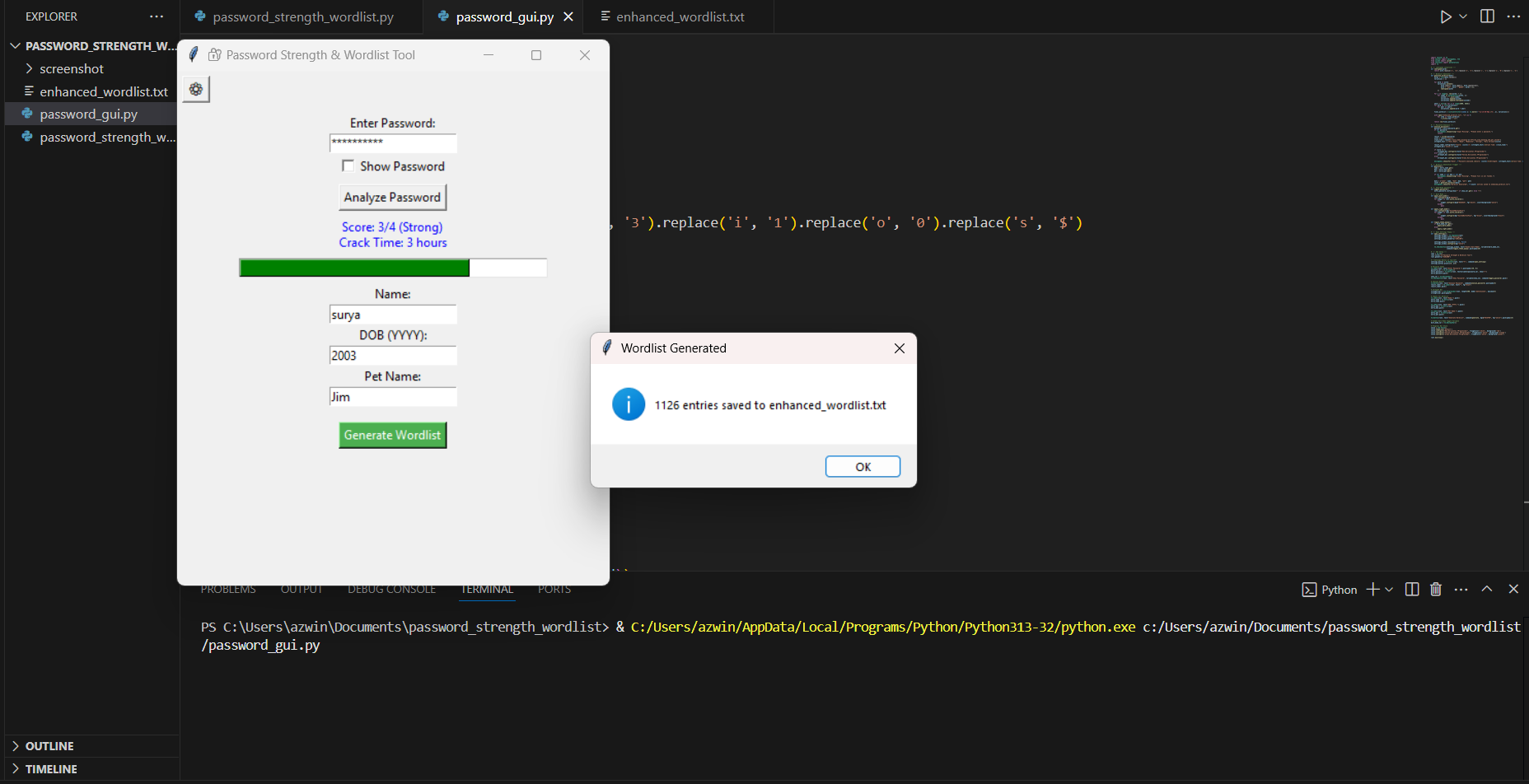
✅ 1. **Main GUI Screenshot**



✅ 2. **Password Analysis Result**



✅ 3. **Wordlist Generation**



✅ 4. **Dark Mode Toggle**

