

Title: Password Strength Analyzer

Abstract

This project implements a password strength analyzer that evaluates password security using entropy calculation, character validation, and common password detection. The system provides security recommendations to help users create strong passwords.

Introduction

Weak passwords are a major cause of security breaches. This project analyzes password strength and enforces secure password practices.

Tools Used

- Python
- Regular expressions
- Colorama library

Steps Performed

1. Designed password validation rules
2. Implemented strength scoring system
3. Added entropy calculation
4. Implemented weak password detection
5. Generated security recommendations

Conclusion

The project demonstrates how password security can be evaluated programmatically and helps improve authentication security awareness.