

# Password Strength Analyzer

Elevate Laps — Cyber Security Internship

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Domain: Cyber Security

## Abstract:

This project focuses on analyzing the strength of user passwords based on multiple security parameters. It evaluates whether a password contains uppercase letters, lowercase letters, numbers, and special characters. By providing instant feedback to users, the tool encourages better password practices and improves overall security. Weak passwords are a leading cause of data breaches, and this project demonstrates a simple but effective solution.

## Tools Used:

- Python 3
- Regular Expressions (re module)
- Basic String Operations

## **Password Strength Analyzer (Contd.)**

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### **Working Steps:**

1. The user inputs a password through the program interface.
2. The system checks for different password characteristics such as:
  - Use of uppercase and lowercase letters
  - Inclusion of numeric digits
  - Presence of special characters
3. Each condition satisfied increases the password's overall strength score.
4. Based on the score, the system provides feedback ranging from Weak to Very Strong.
5. Users can adjust their password according to the suggestions provided.

### **Conclusion:**

The Password Strength Analyzer project provides users with instant insights about the strength of the password. By scoring and categorizing passwords based on various parameters, the project raises awareness about password security. This simple yet effective tool showcases the importance of cybersecurity practices that start from user education.