These writeups, authored by Peyton Braun, are designed to guide you through the process of solving all the challenges from the Inaugural University of Wisconsin – Stout Cybersecurity Capture the Flag (CTF) event.

This event was hosted by UW-Stout CyROC x CCDL

I hope these writeups help you gain a deeper understanding of each challenge and how to overcome them.

CTF Challenge Writeups

Each writeup will cover the following aspects of the challenge:

1. **Challenge Overview**: A brief description of the challenge.
2. **Steps to Solve**: Detailed steps, tools used, and reasoning behind each step.
3. **Tools and Methods**: Explanation of why specific tools and methods were chosen.
4. **How It Works**: Insight into the underlying concepts and the thinking process.

Challenge: "RockYou!"

Challenge Overview:

Crack a password-protected zip file using a wordlist.

Challenge Description:

- Don't crack your zipper!

Steps to Solve:

1. Retrieve the file from the challenge and move it to your working directory in Kali Linux
2. Install necessary tools and wordlists on Kali Linux:
    1. sudo apt install wordlists
    2. /usr/share/wordlists/rockyou.txt.gz
    3. sudo apt install fcrackzip -y
3. Use fcrackzip with the RockYou wordlist:
    1. fcrackzip -v -u -D -p /usr/share/wordlists/rockyou.txt RockYou!.zip
    2.

```
┌──(bagle㉿kali)-[~/Desktop]
└─$ fcrackzip -v -u -D -p /usr/share/wordlists/rockyou.txt RockYou.zip
found file 'Flag.txt', (size cp/uc     55/    43, flags 9, chk 9a2b)
checking pw bb468971

PASSWORD FOUND!!!!: pw == Passw0rd123
```

4. Extract the cracked password: Passw0rd123.
5. Use the password to unlock the zip file and retrieve the flag.

Tools and Methods:

- **Kali Linux**: Linux distribution with many tools pre-installed that help with hacking/penetration testing
- **fcrackzip**: Lightweight and effective for cracking zip file passwords.
- **RockYou wordlist**: Comprehensive list of common passwords.

How It Works:

fcrackzip uses a brute-force approach, systematically testing passwords from the wordlist until it finds a match. The RockYou wordlist increases efficiency by focusing on commonly used passwords.