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: "Dots and Dashes"

Challenge Overview:

The challenge presents a flag encoded in Morse code. The goal is to decode it into plain text.

Challenge Description:

- ... - --- ..- - -.-. - ..-. ..... ----. .-- -.... - ..-. .- .. --... -.... ...- ...-- -... ... --. .- . ..- - ..-. - .-- .. --.. --. -..- --.- .-. --.. -.- --.- ..

Steps to Solve:

1. **Copy the Encoded Flag**:
    1. ... - --- ..- - -.-. - ..-. ..... ----. .-- -.... - ..-. .- .. --... -.... ...- ...-- -... ... --. .- . ..- - ..-. - .-- .. --.. --. -..- --.- .-. --.. -.- --.- ..
2. **Decode Morse Code**:
    1. Use an online tool like dcode.fr Morse Code Decoder or manually convert using a Morse code chart. Paste the code into the tool or match each symbol to its corresponding letter.
3. **Verify the Result**:
    1. The tool decodes the Morse code into the plaintext flag.
4. **Decoded Flag:**
    1. STOUTCTF{59w6tFai76V3BSgaEUtftWiZgXqrzkqI}

Tools and Methods:

- **Tool Used**: Online Morse code translators or a manual Morse chart.
- **Why This Method**: The online tools are efficient and accurate for decoding Morse code quickly.

How It Works:

Morse code encodes characters using combinations of dots (.) and dashes (-). Decoding involves mapping each sequence to its corresponding letter or number. Online tools automate this mapping process, ensuring accuracy.