

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: "BINARY!"

Challenge Overview:

Decode a binary string to retrieve the flag.

Challenge Description:

- Is this binary exploitation?
- 01010011 01010100 01001111 01010101 01010100 01000011 01010100
01000110 01111011 01000111 01011000 01000110 01010111 01000011
01011000 01010010 00110000 01100100 01000110 00110000 01110111
01001101 01001001 01111000 01011010 01101111 01110100 01110101
01011001 01110101 01100100 01110010 01001100 01010101 01010001
01100001 01001110 01001100 01010000 01011000 00110101 01111101

Steps to Solve:

1. Obtain the binary string:
 - 01010011 01010100 01001111 01010101 01010100 01000011 01010100 01000110
01111011 01000111 01011000 01000110 01010111 01000011 01011000 01010010
00110000 01100100 01000110 00110000 01110111 01001101 01001001 01111000
01011010 01101111 01110100 01110101 01011001 01110101 01100100 01110010
01001100 01010101 01010001 01100001 01001110 01001100 01010000 01011000
00110101 01111101
2. Use a binary-to-text converter to decode the binary string.

- For example, use CyberChef's "From Binary" operation.
3. Retrieved flag:
- STOUTCTF{GXFWCXR0dF0wMlxZotuYudrLUQaNLPX5}.

Tools and Methods:

- **CyberChef:** Simplifies binary-to-text conversion.

How It Works:

Binary strings represent ASCII values, where each 8-bit segment corresponds to a character. Decoding the binary string reveals the plaintext flag.