



CITS3004 Cybersecurity

Assignment

Objectives:

1. To test your knowledge on cybersecurity with practical challenges.
2. To reinforce your learning on several web security aspects.

The name of this assignment is Capture the Flag (CTF), and it consists of various challenges that will test your knowledge on cybersecurity. The assignment is worth **20%** of the final grade and the due date is **03 October 2021 at 23:59PM**.

The assignment consists of the following subjects:

1. Cryptography
2. Buffer Overflow
3. Web Attacks
4. Forensics (Packet Analysis)
5. Reverse Engineering

Each subject contains various challenges. You earn points when you **capture the flag** (solve) the problem. No marks are deducted for incorrect answers. In the end, your score will be scaled to 20%.

The details of each task can be found in the following website:

<https://cits3004proj.cybernemosyne.xyz>

(New) Registration

You need to register an account with your **student email** on the CTF website here:

<https://cits3004proj.cybernemosyne.xyz/register>

We will introduce the name of each challenge here:

1. Cryptography
 - 1.1. Diffiecult Communication
 - 1.2. Brain XOR Brawn
 - 1.3. ECBrypted Image
 - 1.4. Rocking With The Cats
 - 1.5. Unfair Game
2. Buffer Overflow
 - 2.1. SecureApp PWN
3. Web Attacks
 - 3.1. I Want To Join

- 3.2. Ping of Death
- 3.3. Csubmit v2.0
- 3.4. My First PHP Site
- 3.5. Web Ninja
- 3.6. No SQL Injection 1
- 3.7. No SQL Injection 2

- 4. Forensics (Packet Analysis)
 - 4.1. Task 1: Who is that?
 - 4.2. Task 2: Found your Vulnerable Website
 - 4.3. Task 3: Such Bad Creds
 - 4.4. Task 4: That File Does Not Look Good
 - 4.5. Task 5: That File Looks Even Worst
 - 4.6. Task 6: This Server Is In A Bind
 - 4.7. Task 7: Whoami
 - 4.8. Task 8: A Present From the Hacker

- 5. Reverse Engineering
 - 5.1. Reverse Engineering

You will have two weeks to complete this assignment. During that time, you will have the help of the Facilitators. Please come prepared with your questions for the lab sessions.

Good Luck!