

## Cybersecurity Discovery Piscine

Weasel 03

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Summary: Almost everything has a database... On this project you will have to break one to bypass the authentication panel.

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#### Chapter I

# About this Cybersecurity Discovery Piscine

#### Welcome!

Welcome to this Discovery Piscine in cybersecurity, a challenge where you will dive into the basics of offensive cybersecurity while experiencing the unique educational model of 42. Here, you won't find traditional classes or a single correct solution; learning is collaborative, hands-on, and focused on you.

We invite you to explore the code that powers the software you use every day, while developing skills that go beyond the technical: logical thinking, problem-solving, and self-directed learning. Programming isn't about memorizing rules; it's about creatively assembling blocks to solve problems in your own unique way.

During this experience, you'll tackle key topics in cybersecurity:

- Terminal navigation: Learn to operate and navigate a system using basic commands.
- OSINT (Open Source Intelligence): Discover how to gather public information to identify potential threats.
- Web security: Understand common vulnerabilities in websites and how they are exploited.
- Cryptography: Familiarize yourself with the fundamentals of data and communication protection.

Peer learning and evaluation will play a central role in your journey. You'll exchange ideas, discuss solutions, and gain new perspectives by collaborating with your peers. This will not only enrich your learning experience but also help you build connections and develop critical skills for tackling future challenges.

Remember, this experience is as unique as you are: each participant will follow their own path, validate different projects, and face unique challenges. What truly matters is what you learn, from both your successes and your mistakes.

Good luck! We hope you enjoy this journey into the world of cybersecurity and collaborative learning.

#### Chapter II

#### Introduction

When you visit a webpage, it's easy to assume that everything is visible at first glance, functioning securely and reliably. However, behind every button, form, and route lies a complex structure of code and configurations that, if not properly managed, can become entry points for attackers.

Web security isn't just about protecting information; it's about understanding how users interact with a page, how data is processed, and what vulnerabilities might arise. Learning to identify and exploit errors in web applications will allow you to see the digital world from a new perspective, preparing you to design safer and more resilient systems.

One of the most well-known vulnerabilities in web applications is SQL injection, which can allow an attacker to execute commands on databases, extract sensitive data, or even bypass login controls. In this exercise, you'll explore how these vulnerabilities arise and learn how to detect and prevent them.

What you'll learn in this exercise:

- Understanding how SQL injection works.
- Techniques for detecting and exploiting SQL vulnerabilities.
- Implementing strategies to protect databases against attacks.

#### Chapter III

#### General instructions

Unless explicitely specified, the following rules will apply on every cell of this Discovery Piscine.

- This subject is the one and only trustable source. Don't trust any rumor.
- The assignments in a subject must be done in the given order. Later assignments won't be rated unless all the previous ones are perfectly executed.
- Be careful about the access rights of your files and folders.
- Your assignments will be evaluated by your Piscine peers.
- All shell assignments must run using /bin/bash.
- You must read the examples thoroughly. They can reveal requirements that are not obvious in the assignment's description.
- You have a question? Ask your neighbor on the left. Otherwise, try your luck with your neighbor on the right.
- Every technical answer you might need is available in the man or on the Internet.
- Remember to read the documentation and to use Slack!
- By Thor, by Odin! Use your brain!!!

## Chapter IV

#### Exercise 03

	Exercise: 03			
/	Inoculation			
Turn-in directory : $ex03/$				
Files to turn in: flag.txt				
Forbidden functions: N				

Here is the URL of the website you are going to exploit: http://cybersec.[campus].[tld.]:3320.

This website suffers from a vulnerability that allows bypassing the login panel without being authenticated. Your goal is precisely that: to bypass this authentication panel.



SQL Injection.



The goal of the exercise is to discover the vulnerability, not the URL. You should be seeing an admin log in page. If it doesn't work, ask the campus staff.

## Chapter V

#### Submission and peer-evaluation

- Have you found the flag? When you have succeeded, you must write it into a flag.txt file.
- The flag.txt file should be located at /weasel/ex03.



Please note that during the evaluation, what we want to verify is that you have understood the excercise. You should be able to explain it and justify the decisions you made.