



Cybersecurity Discovery Piscine

Gecko 00

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*Summary: In this exercise you will be introduced to one of the most used encodings.
You will have to identify it and decode the text.*

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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

Cryptography lies at the core of data protection and communication in the digital world. While often perceived as a field reserved for mathematicians and security experts, many of the techniques it encompasses are tools we use (and depend on) every day—whether to protect our passwords, send encrypted messages, or verify the integrity of a file.

Understanding the basic principles of cryptography will not only help you better protect your information but also recognize the weaknesses of poorly implemented systems. From hashes and encodings to more complex encryptions, this module will teach you how these techniques are used in the real world and how, if not properly applied, they can be exploited.

You’ve probably heard the terms encoding, hashing, and encryption—but do you know the differences between them? In this exercise, you’ll work with one of the most common encodings used to ensure data can be safely transmitted between different systems without issues caused by special characters. However, as you’ll see, encodings are not secure methods for protecting information.

What you’ll learn in this exercise:

- The purpose and use cases of common encodings.
- Differences between encoding, hashing, and encryption.
- Why encoding should not be used as a security mechanism.

Chapter III


General instructions

Unless explicitly 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 00

	Exercise : 00
Basic	
Turn-in directory : <i>ex00/</i>	
Files to turn in : flag.txt	
Forbidden functions : None	

You should first find which encoding is being used to encode this information:

```
NDJCQ057Yjq1M182NF8xNV9jMDBsfQ==
```

Once you know the encoding, you should decode the message to find the flag!!



Cyber chef

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 `/gecko/ex00`.



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