# Practical Work 2 - TCP

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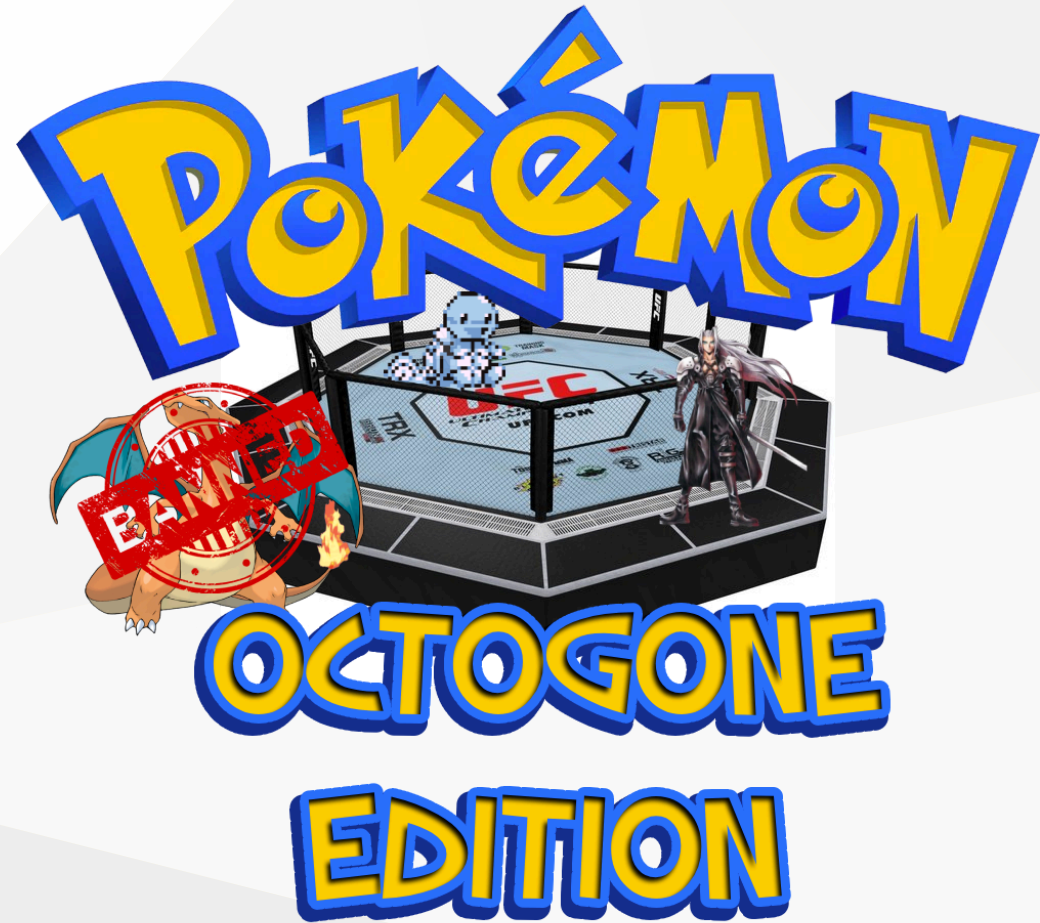
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*DAI-TIC-C*

# Pokémon Octogone édition

## Outline

- **Objective**: Create a program who uses TCP sockets in Java

- **Project Goal**: Learn how to use sockets and threads in Java and create a protocol

# How did we split the work

**Dani** : Sockets, Connections, Trainer/Pokémon implementation, Menus & Docker
**Nicolas** : Battle, Refractoring & protocol design

# What did we used

- **Language**: Java
- **Tools**: Maven, Git, picoCLI & Docker

# Key Features

- **Pokédex** : Add and use any Pokémon (Yes, even Sephiroth)

- **Teams** : Make a team from the Pokémons available

- **BATTLES !** : 1v1 a friend via Internet

# Pokédex

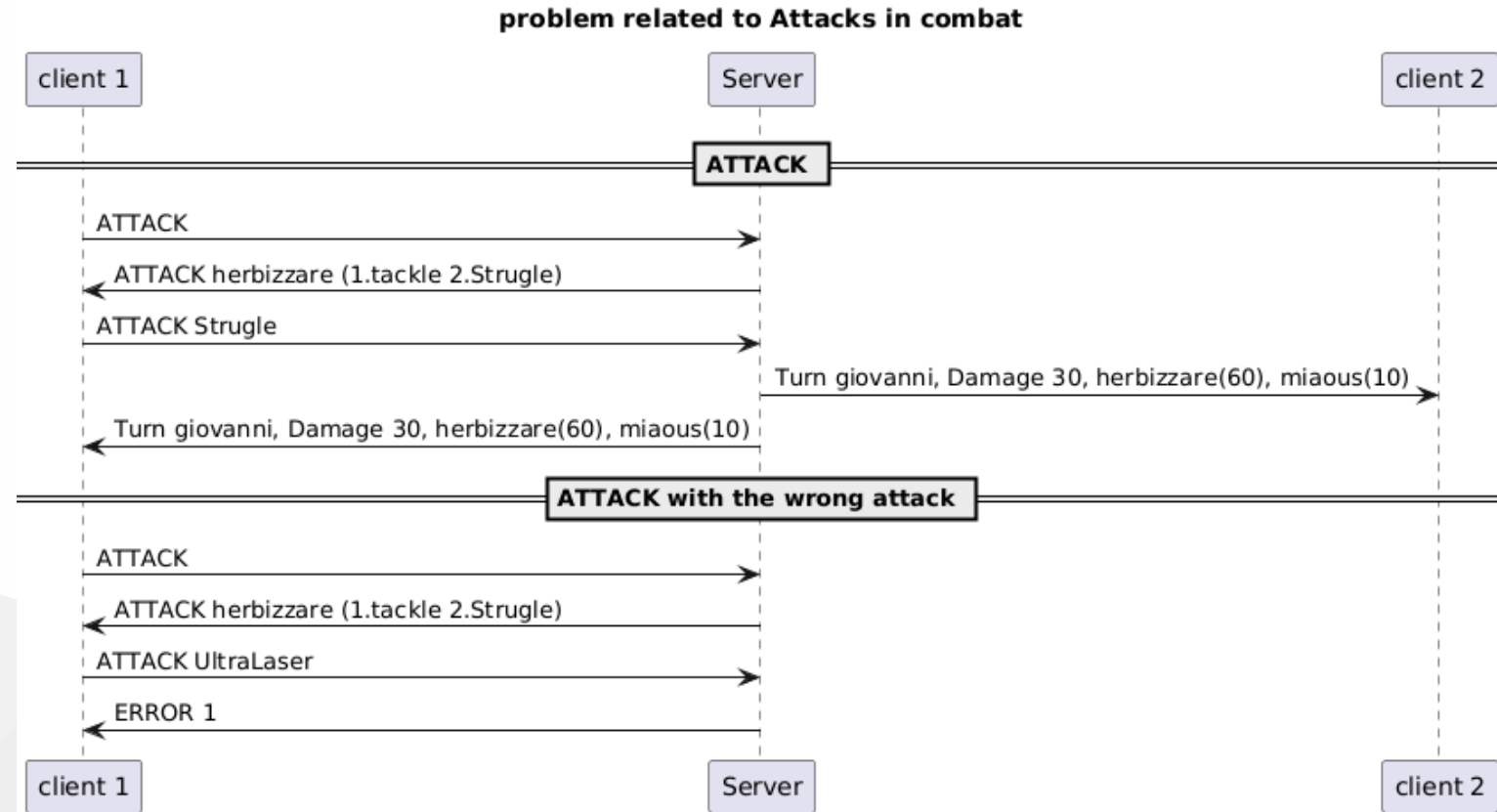- Filled with Pokémons
- Loaded and saved in a .txt files

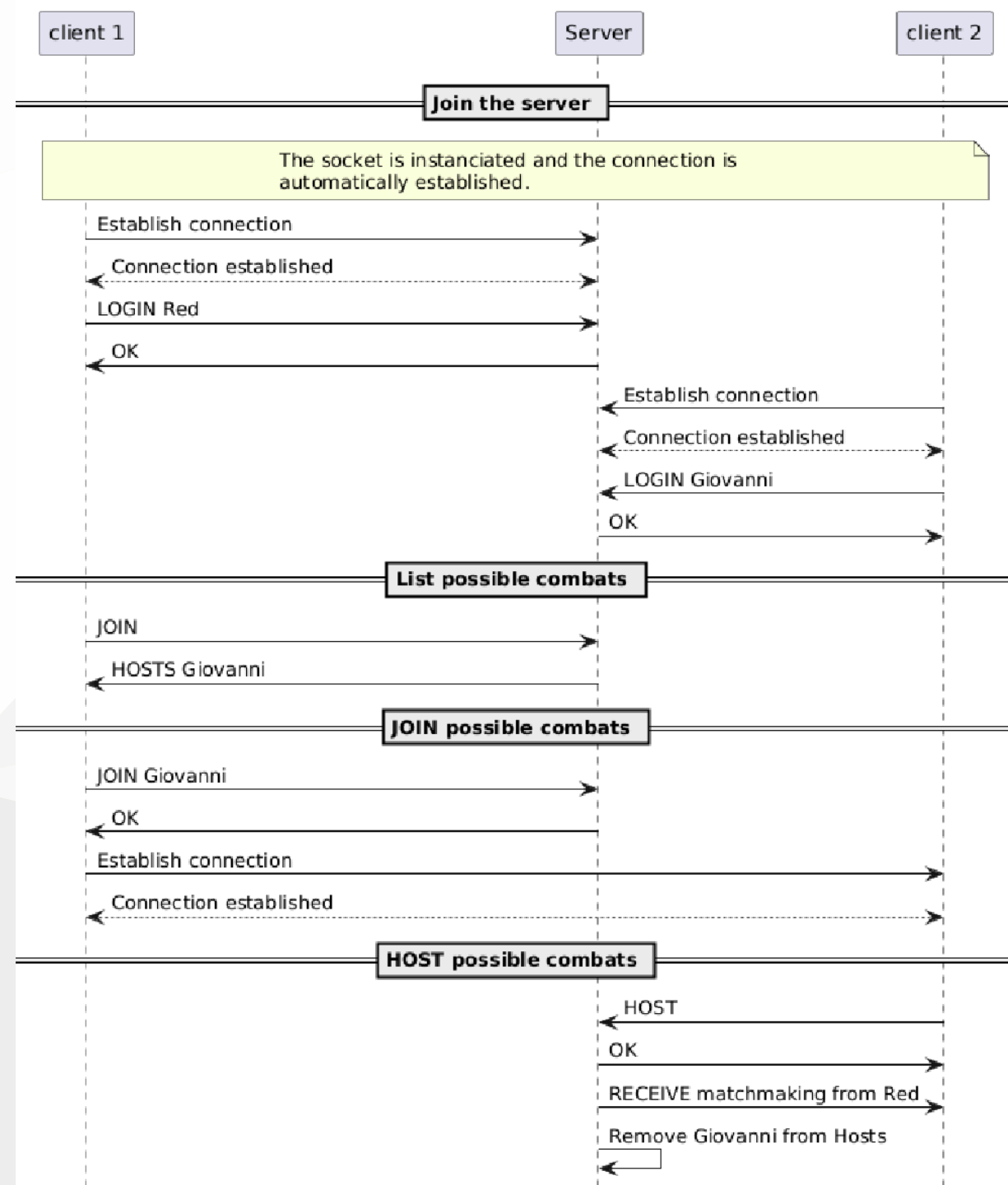# Trainer

- Has a team
- Name
- Money

# Protocol

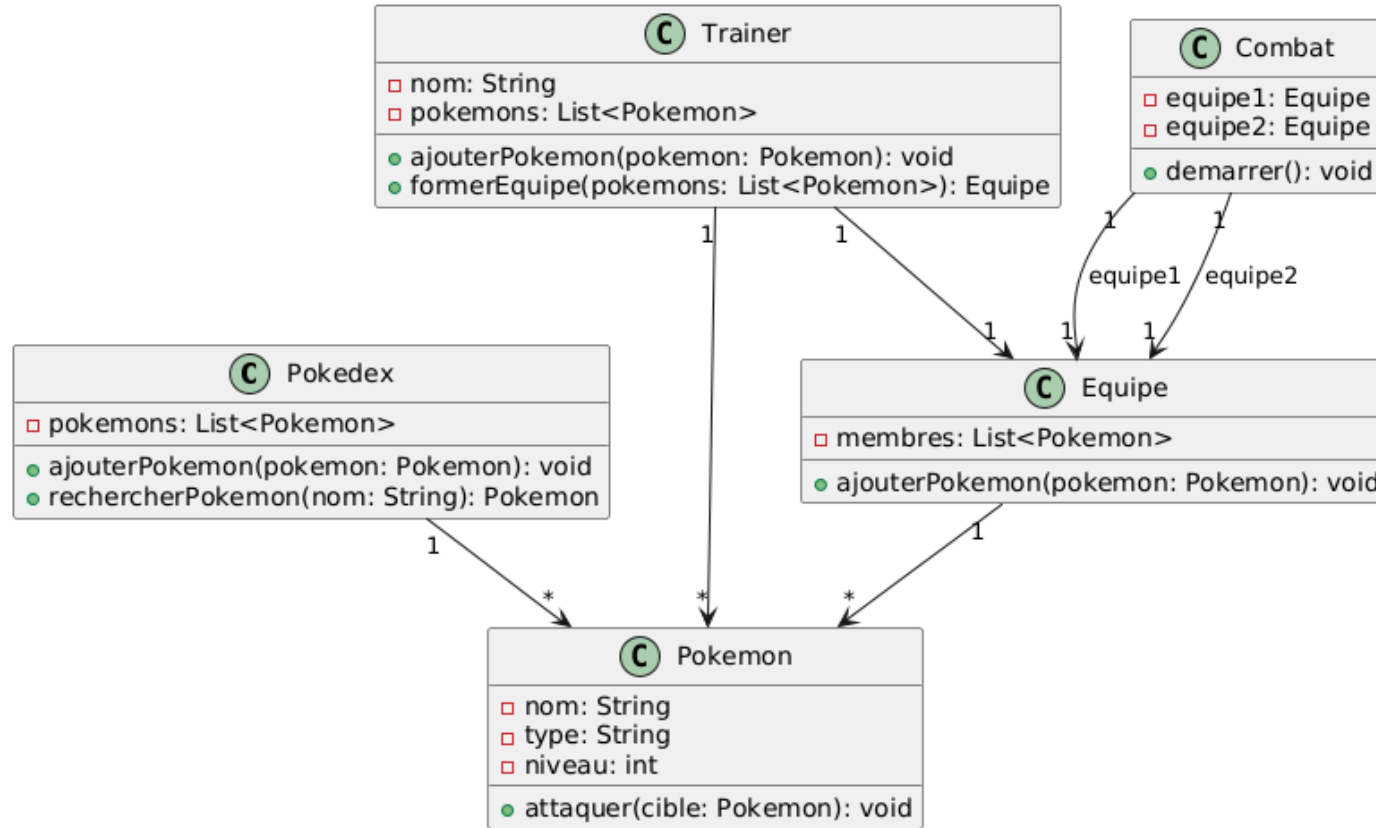- The port it uses is the port number 28500.



problem related to Attacks in combat

client 1 — Server — client 2

ATTACK

ATTACK
ATTACK herbizzare (1.tackle 2.Strugle)
ATTACK Strugle
Turn giovanni, Damage 30, herbizzare(60), miaous(10)
Turn giovanni, Damage 30, herbizzare(60), miaous(10)

ATTACK with the wrong attack

ATTACK
ATTACK herbizzare (1.tackle 2.Strugle)
ATTACK UltraLaser
ERROR 1

# Protocol

- Use the command **\<HOST\>** to create a lobby.

- Use the command **\<JOIN\> \<hostId\>** to join a lobby.

# UML

# Usage

## Docker

- Server
- Client

## Jar [Optional]

- Server
- Client

# Things we want to improve

- Create a custom trainer and save it

- Have a GUI

- Add sprites

- Add audio

# Demonstration

# Questions ?

# Thank you for your attention

# Acknowledgments

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