## Short summary of side projects on my GitHub account

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Updated: 2023-12-15



Languages: Python, Java

Frameworks: Django, Flask, SQLAlchemy, Odoo ERP,

JavaFX...

## **Projects implemented in Python**

• life:

 Conway's Game of Life with colors. https://qithub.com/japinol7/life

o Tests: No unit tests, but includes a test suite.

Notes: GUI under construction

For the moment you will have to use the keyboard keys and the line command parameters. Apart from these GUI elements, this version is fully operational.

movies\_lib\_explorer

 Movies Library Metadata Explorer using Django and Django REST framework <a href="https://github.com/japinol7/movies-lib-explorer">https://github.com/japinol7/movies-lib-explorer</a>

o Tests: Unit tests implemented using django.test with unittest.

Notes:

This is a very simple Movies Library Metadata Explorer using Django. It includes a REST API for some catalog models using Django REST framework. Its purpose is to be used as a Django web app example.

teams-generator-services

Teams Generator Services

https://github.com/japinol7/teams-generator-services

Tests: Some unit tests implemented for the main service using pytest: <a href="https://github.com/japinol7/teams-generator-services/tree/main/services/generate-teams">https://github.com/japinol7/teams-generator-services/tree/main/services/generate-teams</a>

o Notes:

Some microservices related to the generation of RPG teams. This project uses AWS and Docker containerization.

maze-solver

 Maze Solver https://github.com/japinol7/maze-solver

flask-api-calls

o Flask API Calls

https://github.com/japinol7/flask-api-calls

Notes:

This is a very simple Flask web app example that calls some APIs, such as NASA APIs, Marvel Comics, Spotify or OpenAI (ChatGPT).

music-lib-explorer

Music Library Metadata Explorer
 <a href="https://github.com/japinol7/music-lib-explorer">https://github.com/japinol7/music-lib-explorer</a>

Notes:

This is a very simple Music Library Metadata Explorer. Its purpose is to be used as a Flask + SQLAlchemy web app example.

#### • erp-invoice-model

- Very Basic Invoice Model Example https://github.com/japinol7/erp-invoice-model
- Tests: Unit tests implemented using unittest:
- Notes: Run this example this way:
- \$ python -m unittest

#### the-codemaster

- Game: The CodeMaster. Nightmare on Bots' Island https://github.com/japinol7/the-codemaster
- Notes: Python game using pygame.

#### tictactoe

- Game: Tic Tac Toe https://github.com/japinol7/tictactoe
- Tests: Some unit tests implemented for the ComputerPlayer class using pytest: https://github.com/japinol7/tictactoe/tree/main/tests/unit/model
- Notes: Python game using pygame.
   Computer Players use a simple version of the Minimax decision rule algorithm.

## sudoku-solver

- Sudoku Solver. Solves sudokus https://qithub.com/japinol7/sudoku-solver
- Tests: Test for the backtracking algorithm solution using pytest: <a href="https://github.com/japinol7/sudoku-solver/tree/main/tests">https://github.com/japinol7/sudoku-solver/tree/main/tests</a>

### hanoi-towers

- Game: The towers of Hanoi with graphics. A mathematical puzzle game. <a href="https://github.com/japinol7/hanoi-towers">https://github.com/japinol7/hanoi-towers</a>
- Tests: Tests for the iterative and recursive solvers using pytest:
   <a href="https://github.com/japinol7/hanoi-towers/tree/main/tests/unit/model">https://github.com/japinol7/hanoi-towers/tree/main/tests/unit/model</a>
- Notes: Python game using pygame.

# Projects implemented in Java

- retail-kiosk
  - o JAP Merch's Retail Kiosk https://github.com/japinol7/retail-kiosk
  - $\circ$  Tests: Only some tests for the Item model using JUnit 5.
  - Notes: Uses JavaFX.

## **Additional projects implemented in Python**

- small-python-projects
  - Some very basic examples of Python programming https://github.com/japinol7/small-python-projects
  - Tests: Code katas in cyber-dojo project with TDD (tests first) using pytest:
     <a href="https://github.com/japinol7/small-python-projects/tree/master/projects/cyber\_dojo">https://github.com/japinol7/small-python-projects/tree/master/projects/cyber\_dojo</a>
- small-odoo-addons
  - Small addons examples of Python programming with the Odoo ERP framework CE 16.0. https://github.com/japinol7/small-odoo-addons
    - JAP Sales:
      - Duplicate a sale line with the duplication button.
      - Create an Invoice from Selected Sale Lines.
- poetry-lib-explorer
  - Poetry Library Explorer
     https://qithub.com/japinol7/poetry-lib-explorer
  - Warning

The poems in this project were written by myself when I was younger. Read them under your own risk; Although these poems are not great, they all have copyright.

Notes:

This is a very simple Poetry Library Metadata Explorer. Its purpose is to be used as a Flask + SQLAlchemy web app example.

- snakes
  - o Game: Snakes

https://github.com/japinol7/snakes

Notes: Python game using pygame.

- fibonacci
  - o Fibonacci

https://github.com/japinol7/fibonacci

O Notes:

Benchmarks some algorithms that calculate elements of the Fibonacci sequence.