

# Vaccination Institut Pasteur API

## Web Services Project

Maha Jdidi

Tunis Business School

January 2026



- 1 Introduction
  - Motivation
  - Problem Statement
  - Objectives
- 2 Use Case Diagram
- 3 Class Diagram
- 4 Technical Aspects
- 5 Future Enhancements
- 6 Swagger Documentation
- 7 Contact Information



In Tunisia, access to vaccination remains a key public health challenge, partly due to limited awareness and the absence of centralized digital solutions. Institutions like the Institut Pasteur play a crucial role in vaccination and disease prevention, yet citizens often face difficulties in booking appointments, tracking vaccination records, and accessing accurate information. This project is motivated by the need to provide a secure, automated, and user-friendly platform to support public health initiatives.



The absence of a centralized system for appointment booking, vaccination tracking, digital certification, and health education reduces accessibility for citizens and increases management complexity for healthcare staff at the Institut Pasteur in Tunisia.



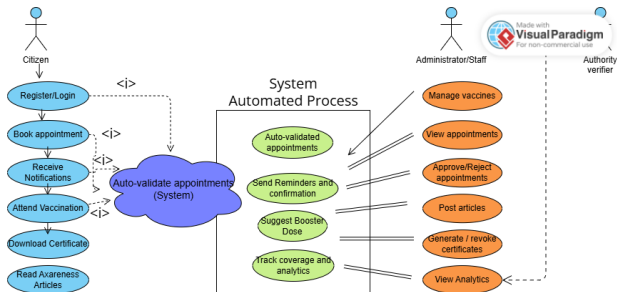
- Develop a secure and intelligent RESTful API for vaccination management at the Institut Pasteur in Tunisia.
- Provide automated appointment scheduling, vaccination record tracking, digital certificates, and educational content.
- Support administrators and healthcare staff to improve vaccine accessibility, reduce workload, and enhance public health monitoring.



- 1 Introduction
  - Motivation
  - Problem Statement
  - Objectives
- 2 Use Case Diagram
- 3 Class Diagram
- 4 Technical Aspects
- 5 Future Enhancements
- 6 Swagger Documentation
- 7 Contact Information



# Use Case Diagram

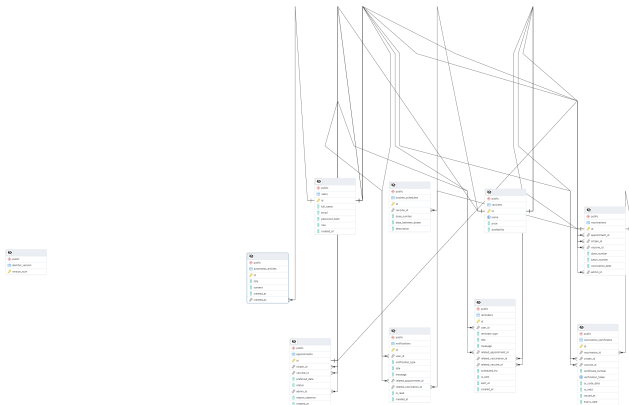




- 1 Introduction
  - Motivation
  - Problem Statement
  - Objectives
- 2 Use Case Diagram
- 3 Class Diagram
- 4 Technical Aspects
- 5 Future Enhancements
- 6 Swagger Documentation
- 7 Contact Information



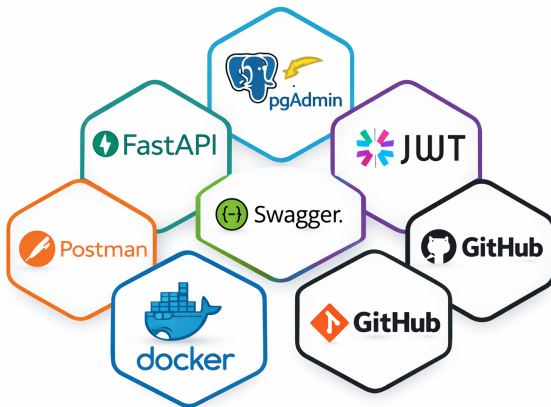
# Class Diagram





- 1 Introduction
  - Motivation
  - Problem Statement
  - Objectives
- 2 Use Case Diagram
- 3 Class Diagram
- 4 Technical Aspects
- 5 Future Enhancements
- 6 Swagger Documentation
- 7 Contact Information







- 1 Introduction
  - Motivation
  - Problem Statement
  - Objectives
- 2 Use Case Diagram
- 3 Class Diagram
- 4 Technical Aspects
- 5 Future Enhancements
- 6 Swagger Documentation
- 7 Contact Information







- 1 Introduction
  - Motivation
  - Problem Statement
  - Objectives
- 2 Use Case Diagram
- 3 Class Diagram
- 4 Technical Aspects
- 5 Future Enhancements
- 6 Swagger Documentation**
- 7 Contact Information



FastAPI 0.100.0 0.100.0

Swagger UI

Authorize

## Users

**POST** /users/register Register

**GET** /users/ Get Users

## Authentication

**POST** /auth/login Login

## Vaccines

**GET** /vaccines/ Get Vaccines

**POST** /vaccines/ Create Vaccine

**HEAD** /vaccines/{vaccine\_id} Head Vaccine

**GET** /vaccines/{vaccine\_id} Get Vaccine

**PATCH** /vaccines/{vaccine\_id} Update Vaccine

**DELETE** /vaccines/{vaccine\_id} Delete Vaccine

## Appointments

**GET** /appointments/ Get Appointments

**POST** /appointments/ Create Appointment

**HEAD** /appointments/{appointment\_id} Head Appointment

**GET** /appointments/{appointment\_id} Get Appointment

**DELETE** /appointments/{appointment\_id} Delete Appointment

**PATCH** /appointments/{appointment\_id}/status Update Appointment Status



- 1 Introduction
  - Motivation
  - Problem Statement
  - Objectives
- 2 Use Case Diagram
- 3 Class Diagram
- 4 Technical Aspects
- 5 Future Enhancements
- 6 Swagger Documentation
- 7 Contact Information



# Thank you!

Maha Jdidi

Email: mahajdid115@gmail.com