

Specifications Document

Web Application for Medical Records Management

March 17, 2025

1 Introduction

1.1 General Context

Electronic Medical Records (EMR) have become a necessity in modern healthcare. They allow healthcare professionals to centralize patient medical information, ensuring better organization and optimal follow-up. The transition to a digital solution improves the quality of care, optimizes processing times, and ensures effective traceability of consultations.

The rise of information technology has transformed the healthcare sector by enabling rapid and secure access to medical data. However, many healthcare institutions still use fragmented management systems, sometimes in paper format or with non-centralized local databases. This leads to information loss, medical errors, and delays in care.

The goal of this web application is to address these issues by offering a secure, accessible, and efficient solution for managing electronic medical records. With this platform, healthcare professionals will be able to manage patient medical information in a centralized and secure manner, in compliance with current regulations.

1.2 Specific Context

Currently, medical records are often scattered across multiple systems, making practitioners' work more complex. The lack of quick access to essential information can result in delays in diagnosis and treatment. Additionally, the lack of standardization in medical data management can create interoperability issues between different healthcare institutions.

This project aims to develop a web application that will:

- **Centralize and secure** patient medical data.
- **Facilitate access to medical records** for authorized healthcare professionals.
- **Ensure confidentiality** of information through advanced security protocols.
- **Improve appointment management** and optimize practitioners' time.
- **Facilitate communication** between doctors and patients through secure messaging and medical document sharing.

1.3 Project Objectives

The main objectives of the project are:

- **Design an ergonomic and intuitive web application** for the management of comprehensive medical records.
- **Ensure confidentiality and security** of medical data through advanced encryption and secure access.
- **Optimize consultation and appointment management**, reducing wait times and improving healthcare facility organization.
- **Facilitate communication between healthcare professionals and their patients**, integrating a secure messaging system and medical document sharing.