# PROJECT DOCUMENTATION
# HOSPITAL MANAGEMENT SYSTEM

1. Technical Spesification
   - Backend:
     - FastAPI (Python web framework)
     - SQLAlchemy (ORM)
     - PostgreSQL (Database)
     - JWT Authentication
     - Uvicorn (ASGI server)
   - Frontend:
     - Jinja2 Templates
     - Tailwind CSS
     - HTML5/CSS3
   - Dependencies:
     - fastapi==0.104.1
     - sqlalchemy==2.0.23
     - psycopg2-binary==2.9.9
     - python-jose[cryptography]==3.3.0
     - openpyxl==3.1.2

2. Installation

   # 1. Clone repository
   ```
   git clone https://github.com/masithamf/hospital-management-system.git
   ```

   # 2. Install dependencies
   ```
   pip install -r requirements.txt
   ```

   # 3. Setup database
   # Create PostgreSQL database

   # 4. Run application
   ```
   uvicorn main:app --reload --host 127.0.0.1 --port 8006
   ```
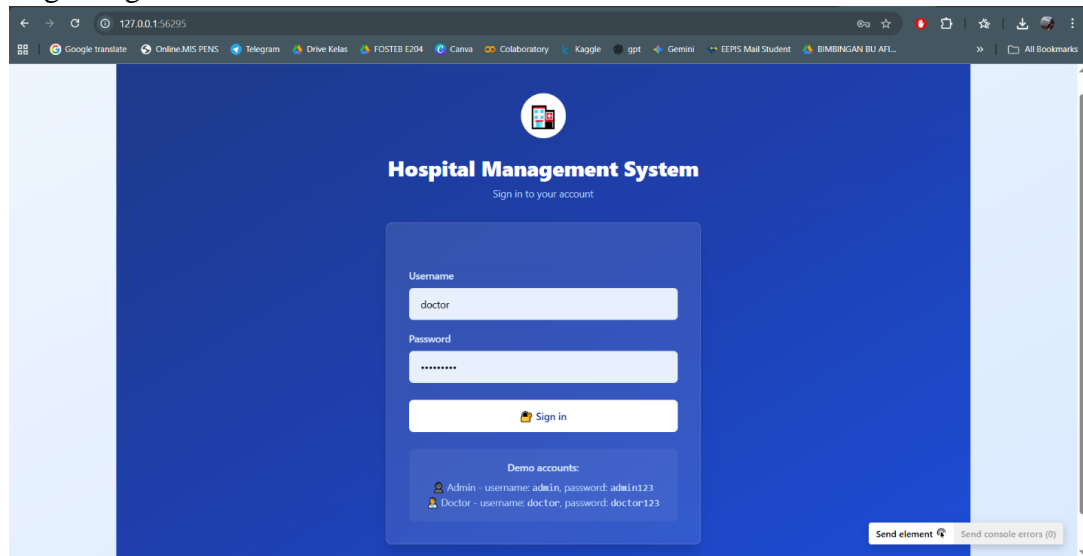
3. User Manual
   3.1. Login Page



Figure 1 Login Page

The system implements a dual-access login mechanism for both doctors and administrators, ensuring that each role has the appropriate level of access and functionality.
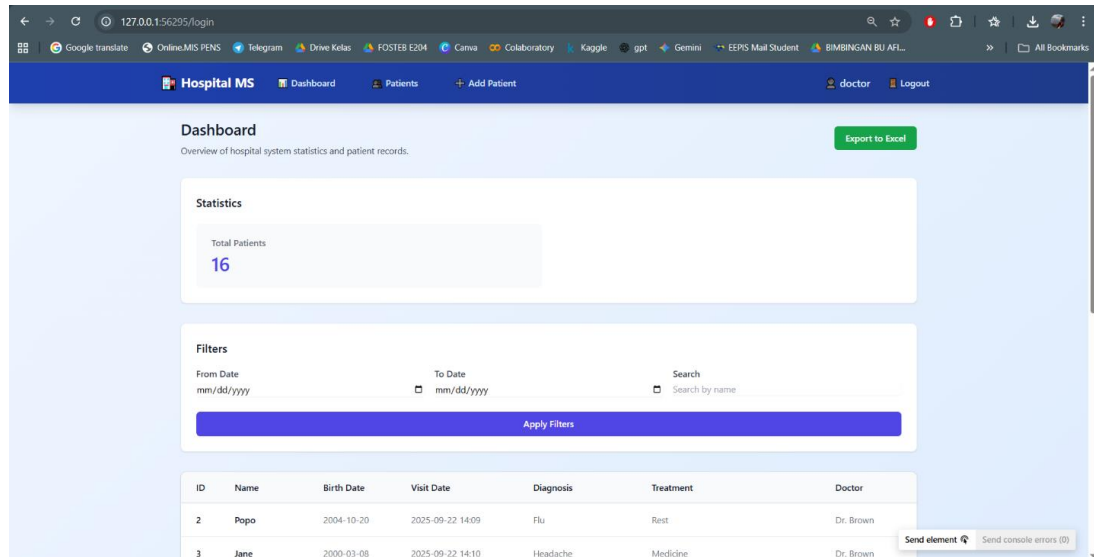
3.2. Dashboard
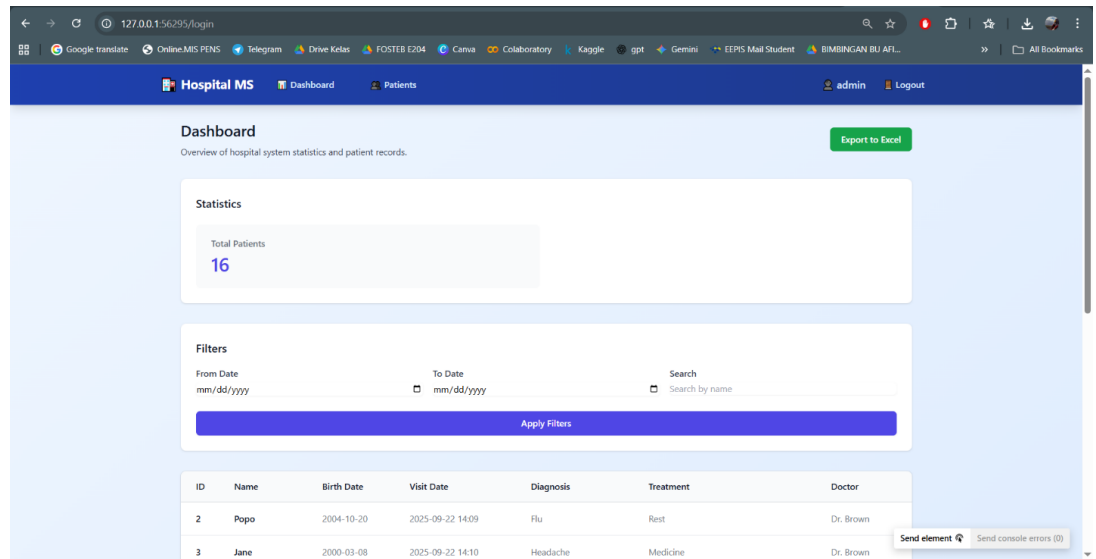


Figure 2 Dashboard as Doctor

Figure 3 Dashboard as Admin

The system dashboard displays patient statistics in a summarized form, incorporates filtering features to refine search results, and presents a complete list of patients with details such as visit date, diagnosis, and treatment.

### 3.3. Patient List



Figure 4 Patient List

The system provides a patient list displayed in the form of a table, which includes columns for ID, Name, Birth Date, Visit Date, Diagnosis, Treatment, and Doctor to ensure clear and structured presentation of patient data.
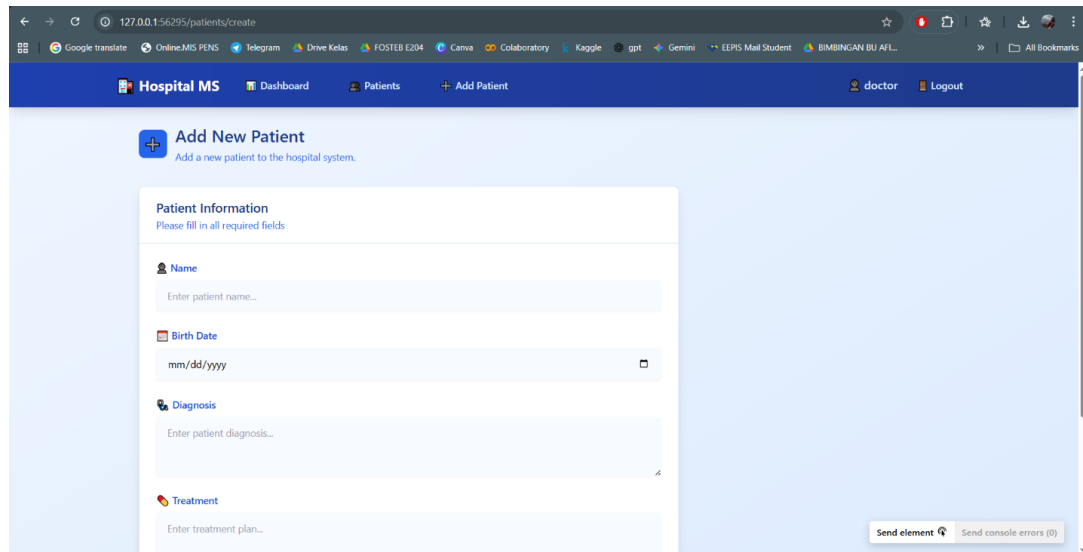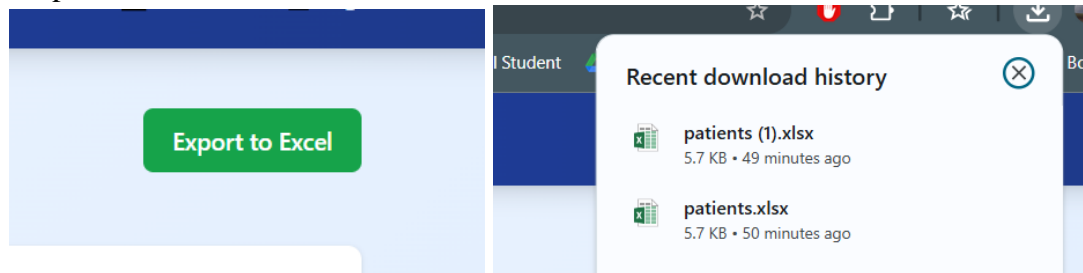
## 3.4. Add Patient Form



Figure 5 Add Patient Form

The system provides an Add patient form feature that can only be accessed by users assigned the doctor role, ensuring that the process of entering and managing patient information is restricted to authorized medical personnel.

## 3.5. Export Excel



The system provides an export to Excel button, which allows patient data to be exported and stored as an Excel file on the user's computer for further analysis or reporting purposes.