**Medical CRUD**

A Python-based web application for managing patient records and conducting exploratory data analysis (EDA) on medical data. This project enables healthcare professionals to perform CRUD (Create, Read, Update, Delete) operations on patient details while maintaining a secure user authentication system. Built using Flask and SQLAlchemy, it also supports future integration for advanced health tracking and analytics.

**Key Features**

**User Authentication:** Secure user registration and login functionality using hashed passwords.

**Patient Management:** Add, update, view, and delete patient records.

Stores details like demographics, medical history, admission details, and billing information.

**Dashboard View**: Lists all patient data for easy access.

Exploratory Data Analysis (EDA)**:** Designed to enable medical data analysis using libraries like pandas, matplotlib, and seaborn (future scope).

**Responsive and Extensible:** Designed to grow with additional features like reports, charts, and predictive analytics.

**Technologies Used**

**Backend**: Flask, Flask-SQLAlchemy, Flask-Migrate, PyMySQL

**Frontend**: HTML, CSS (no framework, fully customizable)

**Database**: MySQL

**Use Case**

This application is ideal for small to medium-sized healthcare providers, clinics, or educational purposes to demonstrate CRUD operations and medical data handling. It can also be extended to include analytics and insights into patient health trends.