HOSPITAL APPOINTMENT SYSTEM

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OVERVIEW

Hospital Appointment System is developed for the patients and hospital staff to create/make appointments in hospitals via this platform.
The purpose is to provide a solid and easy to use application, which makes hospital processes easier, and also amplify the patient experience.

OBJECTIVE

- To allow hospital receptionists to easily book patient’s appointments through a friendly interface.
- To allow hospital staff to manage hospital appointments in real-time.
- To implement a secure back-end system that handles appointment and communication between client and server components.
- To develop an easy way for doctors to approve and schedule appointments.

SCOPE

- Appointment creation, editing and deletion.
- Real-time updating and tracking of appointment
- Doctor approval and scheduling interface.
- Validation of appointment.

TECHNOLOGIES & TOOLS USED

1. Eclipse IDE
2. Xampp
3. PHP
4. PDO
5. MySQL Database
6. Java SE
7. Apache
8. JSON
9. HTTP Protocol

PROBLEM STATEMENT

In most hospitals appointment management is still operated manually. These problems may influence patient satisfaction and hospital operational efficiency. Therefore, there is a need for an online Hospital Appointment system that handles appointments efficiently, in real time and as well as guarantees reliable communication between the users-to-backend -to database.

REQUIREMENT

The system must support multiple user roles (receptionist, doctor, staff) and enable the creation, updating, and tracking of hospital appointments. It must be secure, reliable, and accessible via a distributed client-server architecture.

USER REQUIREMENT

- Hospital receptionist should be able to create patient’s appointment
- Doctors should be able to view, approve and schedule patient’s appointments.
- Hospital staff should be able to track the appointment status in real-time.

FUNCTIONAL REQUIREMENT

- The system should allow hospital receptionists to create new patient’s appointment.
- The system should allow doctors to view and approve appointments.
- The system shall validate data.
- The backend should process appointment data and store it into a database.
- The system should provide user authentication for secure access.

NON-FUNCTIONAL REQUIREMENT

- The system should have a user-friendly and responsive interface.
- The system should be accessible locally.
- The system should ensure data security and confidentiality.
- The system should provide fast response time for user requests (<2 seconds).

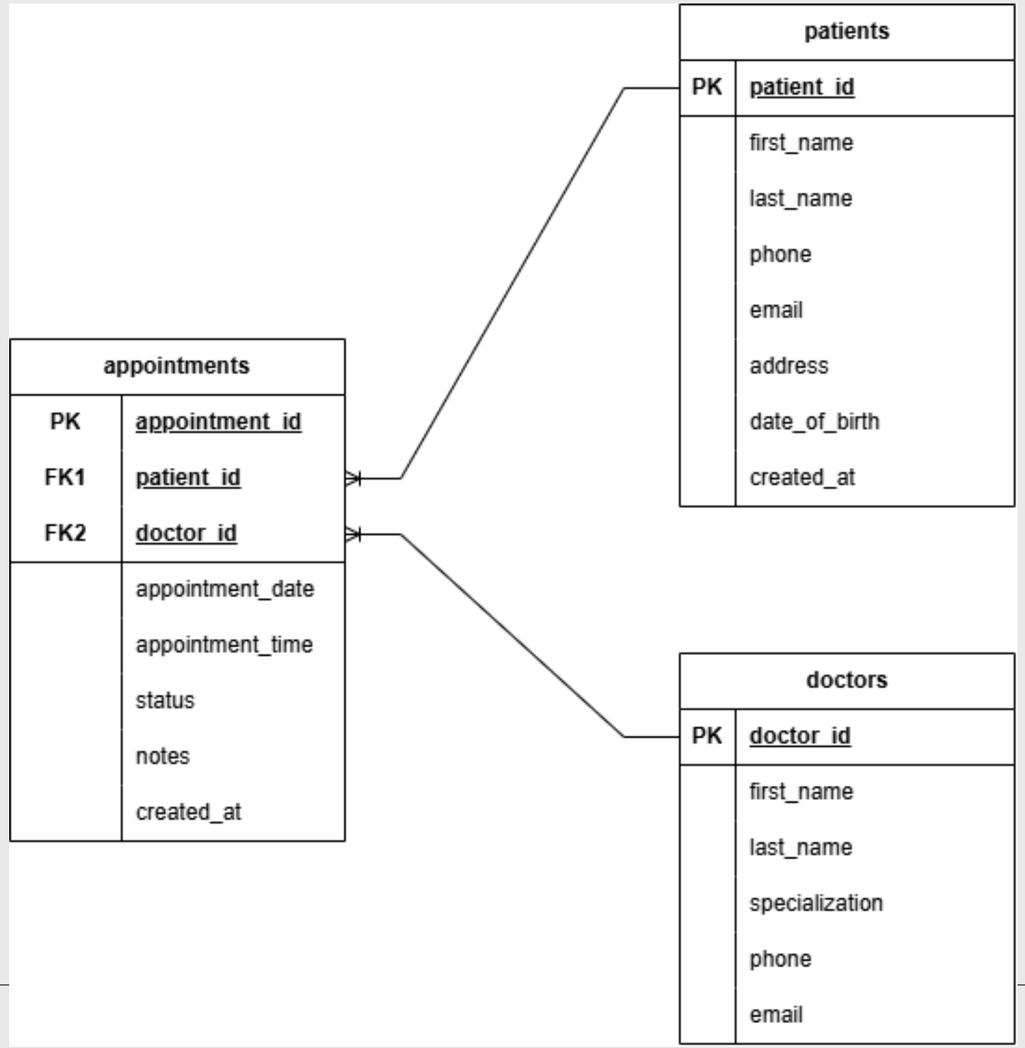
TARGET USER

- Hospital Receptionist: Responsible for creating new patient’s appointments.
- Doctor: View, approve and schedule appointments.

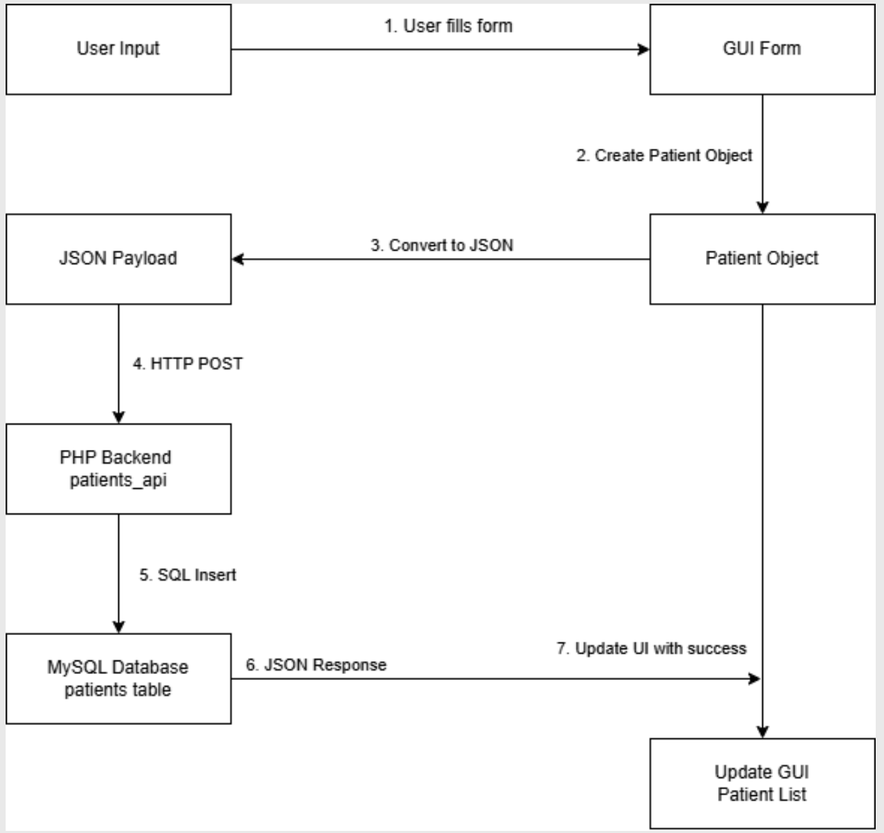
SYSTEM ARCHITECTURE

The system architecture is Three-Tier Client-Server architecture. Three-Tier Client-Server architecture is fitting as it is manageable and flexible by dividing the system into three layers (Presentation Layer, Application Layer, Data Layer).

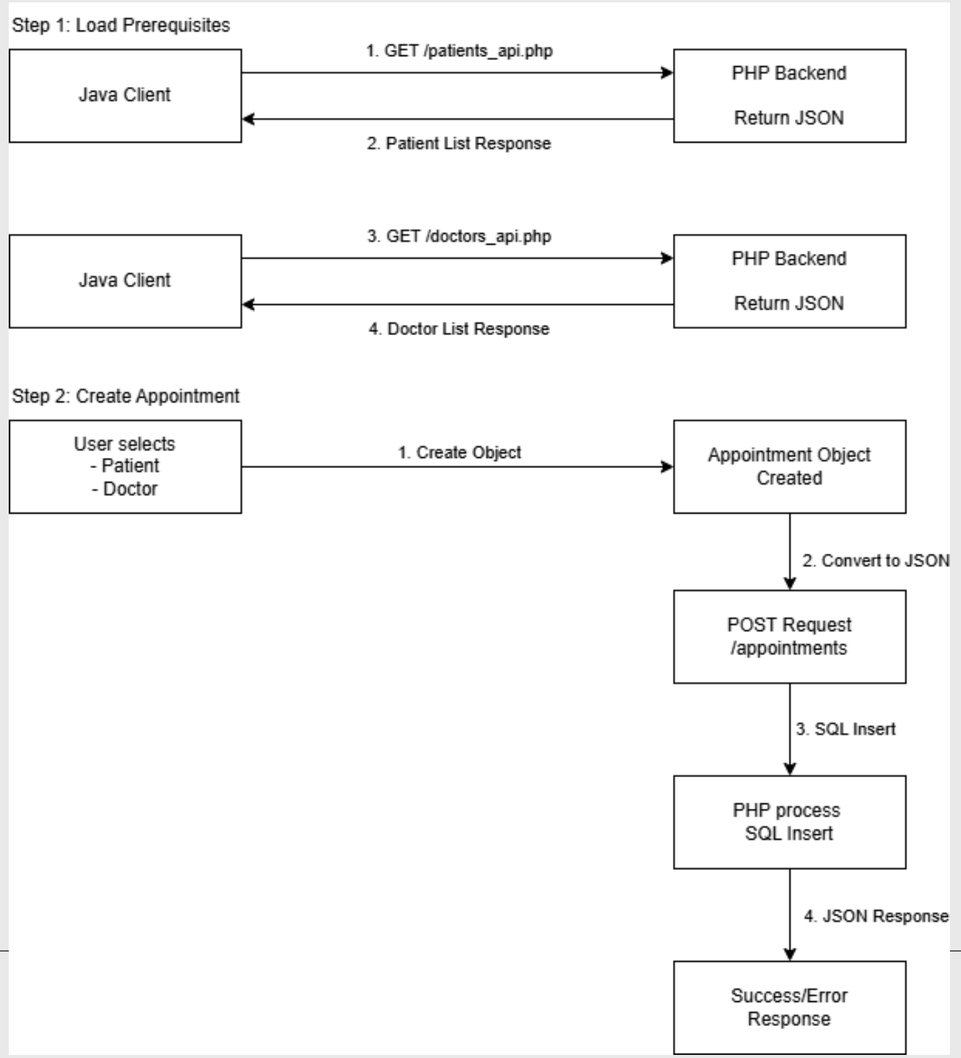
ENTITY-RELATIONAL DIAGRAM



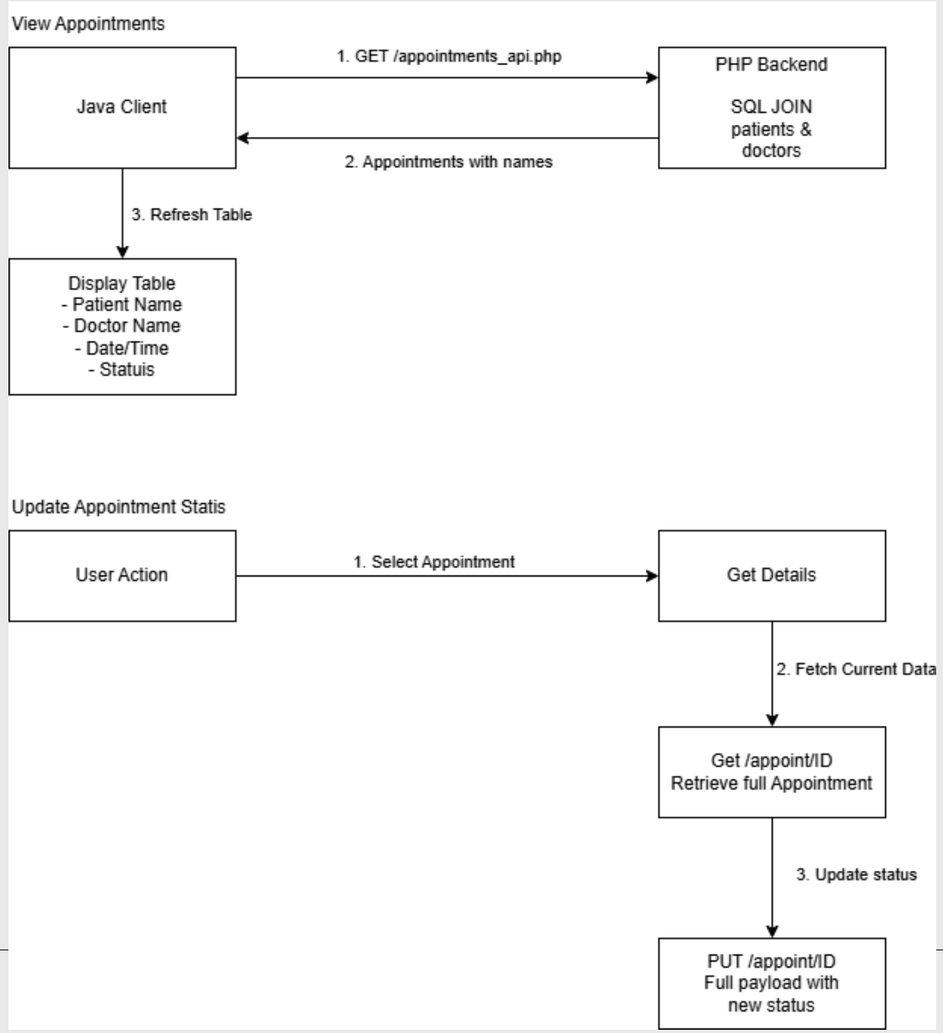
PATIENT REGISTRATION WORKFLOW



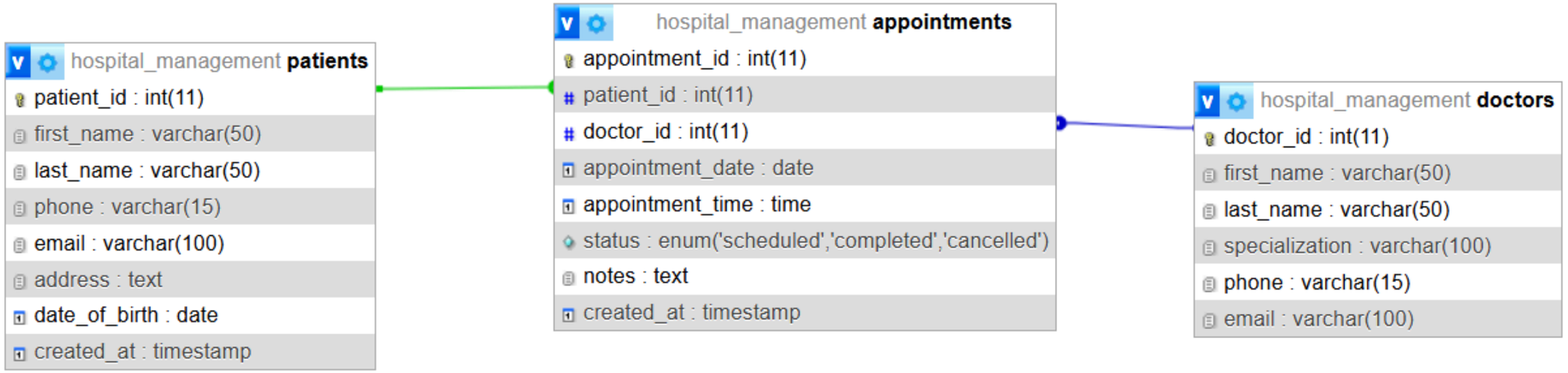
APPOINTMENT SCHEDULING WORKFLOW



APPOINTMENT MANAGEMENT WORKFLOW



DATABASE SCHEMA



MARKET VALUE

- The market value for this system is believed to be highly significant as it targets the healthcare industry
- With the global growing population and increasingly growing population, the need for accessible and efficient healthcare service is expected to rise in the coming years.

LIMITATIONS

- The system is it is inaccessible with the internet. Patients need to go to their local hospital and register their appointment through the hospital receptionist.
- the system lacks searchability options such as search bar or table filter.

FUTURE ENHANCEMENTS

- The system must be able to be accessed through the internet either through a website or application service.
- searchability features need to be added as a way to make finding specific items in specific options or criteria more simple and easy.

CONCLUSION

In conclusion, the Hospital Appointment System is a practical and efficient solution to one of the most challenging challenges in the healthcare industry such as managing patients appointments. By implementing a distributed client-server architecture, the system allows seamless interaction between users, the backend service and the database, ensuring reliable data flow and real-time updates.

THANK YOU