



Project Artefact Declaration

Sem 2 2022/2023

Project Title: The Clinical Consultation Appointment System

Group No: Group 21

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Description of Document

1. Introduction:

The Clinical Consultation Appointment System is a comprehensive software solution designed for enhancing the process of scheduling and managing patient appointments at a government hospital. The system aims to optimize the hospital's operational efficiency. Then, to improve patient experience and ensure seamless coordination among healthcare professionals, administrators, and patients.

2. Objective

- Simplify the appointment scheduling process for patients, doctors, and hospital administrators.
- Reduce patient waiting times by efficiently managing appointment slots and optimizing healthcare providers' schedules.

3. Features:

a. Patient Registration and Profile Management:

- Patients can register in the system by providing essential personal and medical information. They can manage their profiles, update medical histories, and specify preferences for healthcare providers.

b. Online appointment scheduling

- Patients can schedule appointments through a user-friendly web portal or mobile application. They can choose a preferred doctor, check availability and book their appointment at their convenience.

c. Waiting time monitoring

- A waiting time feature will allow patients to be added to a queue for preferred doctors or time slots that are currently fully booked. Additionally, patients can reschedule appointments through the system, making slots available to others.

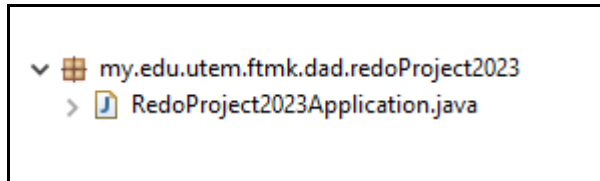
d. Consultation

- These features allow users to get a consultation after a medical checkup. The doctor will provide a better solution based on patient's health problem.

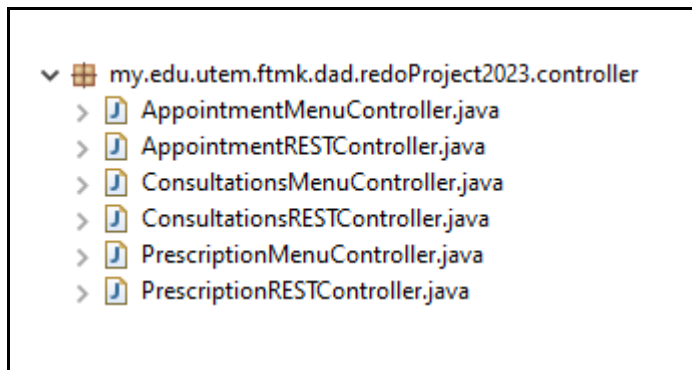
Project Structure

This section is the structure of the project implementation. The implementation refers to the project in Eclipse.

- Here is the name of the main () function of this project.



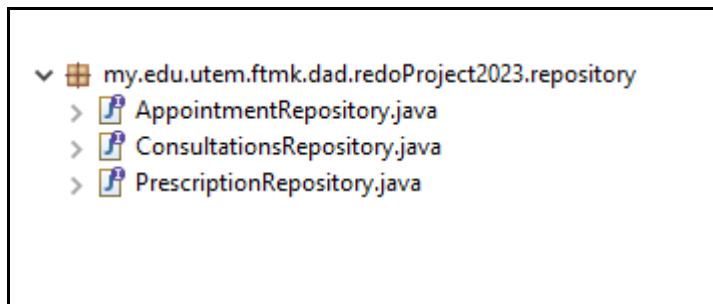
Here are the REST API's files that connect to postman. The files included AppointmentMenu, ConsultationsMenu and PrescriptionMenu. REST API files in Postman allow developers to define the API endpoints (URLs) that the API supports. This includes specifying the HTTP methods (GET, POST, PUT, DELETE, EDIT) and any required parameters or headers for each endpoint. The files contain configurations for various types of API requests (GET, POST, PUT, DELETE, EDIT). They include details such as request headers, request bodies (for POST and PUT), query parameters, authentication tokens, and any other data required to make API calls. Besides, postman also provides a user-friendly interface to send requests to the API and receive responses. REST API files that connect to Postman serve as an essential tool for API development, testing, documentation, collaboration, and monitoring.



Here are the attributes of each class.

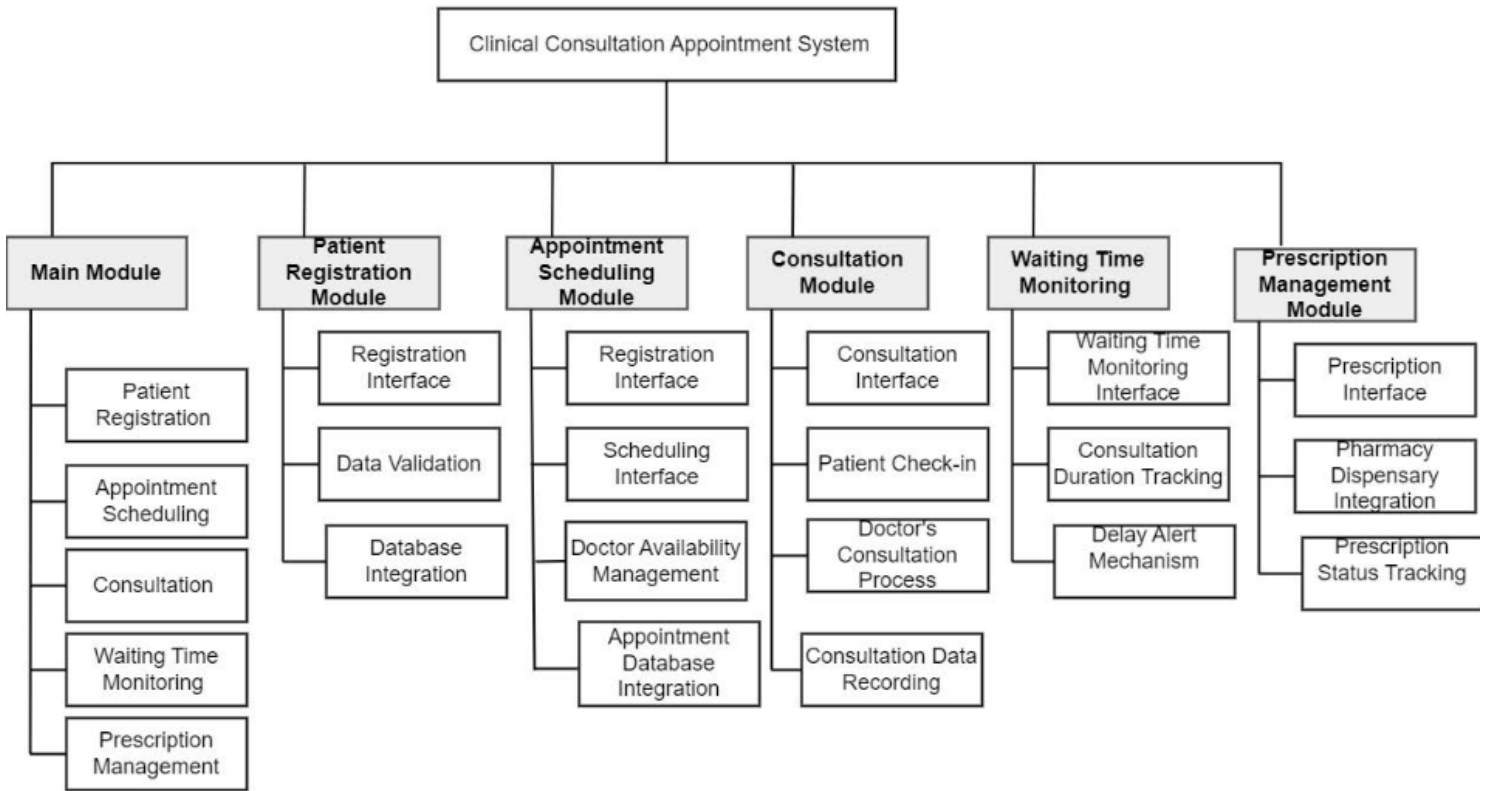


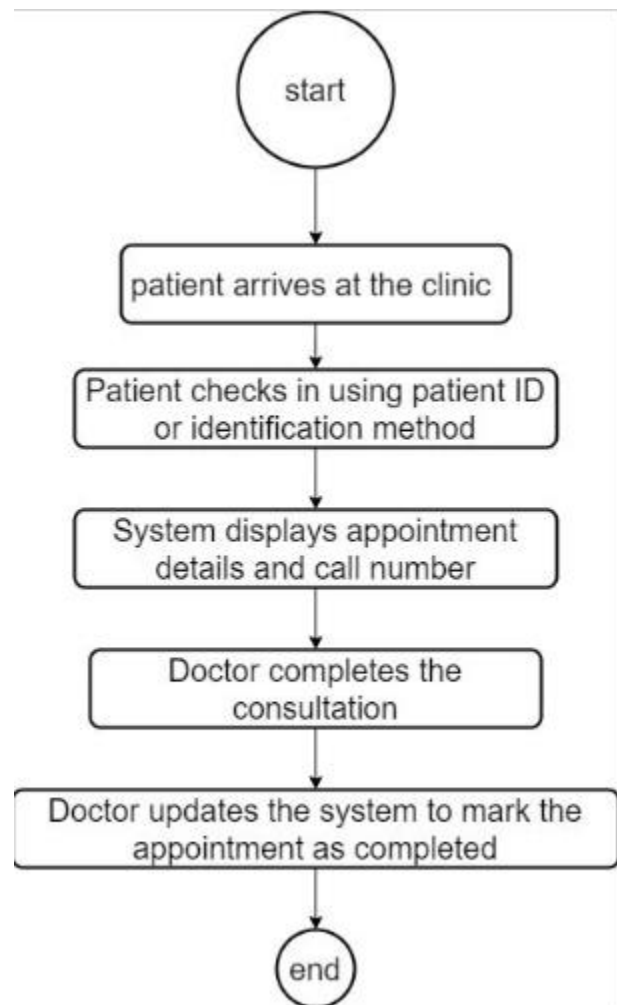
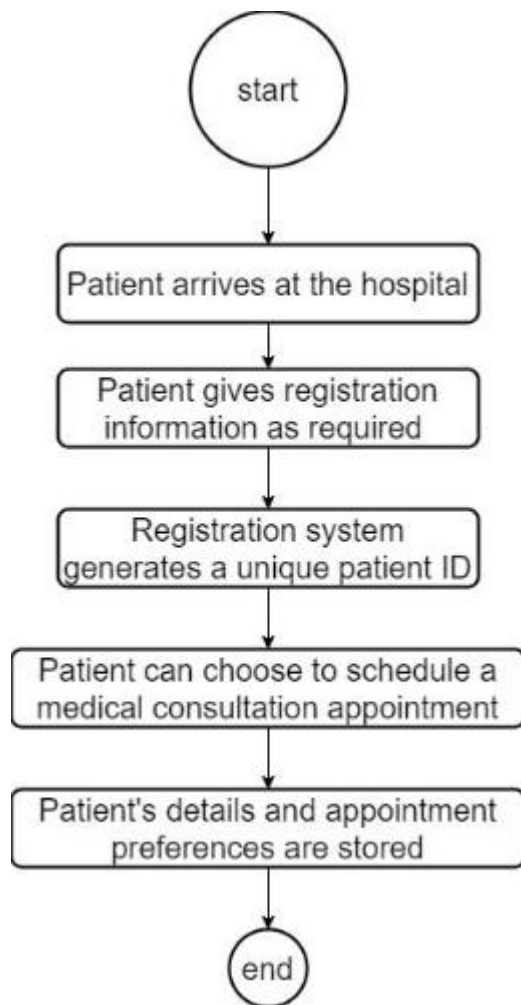
Here is the interface of the project. Purpose of the interface is to define a contract or a set of rules that classes must follow. An interface acts as a blueprint for classes, specifying a list of methods that the implementing classes must have, without providing any implementation details. It establishes a level of abstraction that allows objects of different classes to be treated uniformly based on the capabilities they share through the interface.

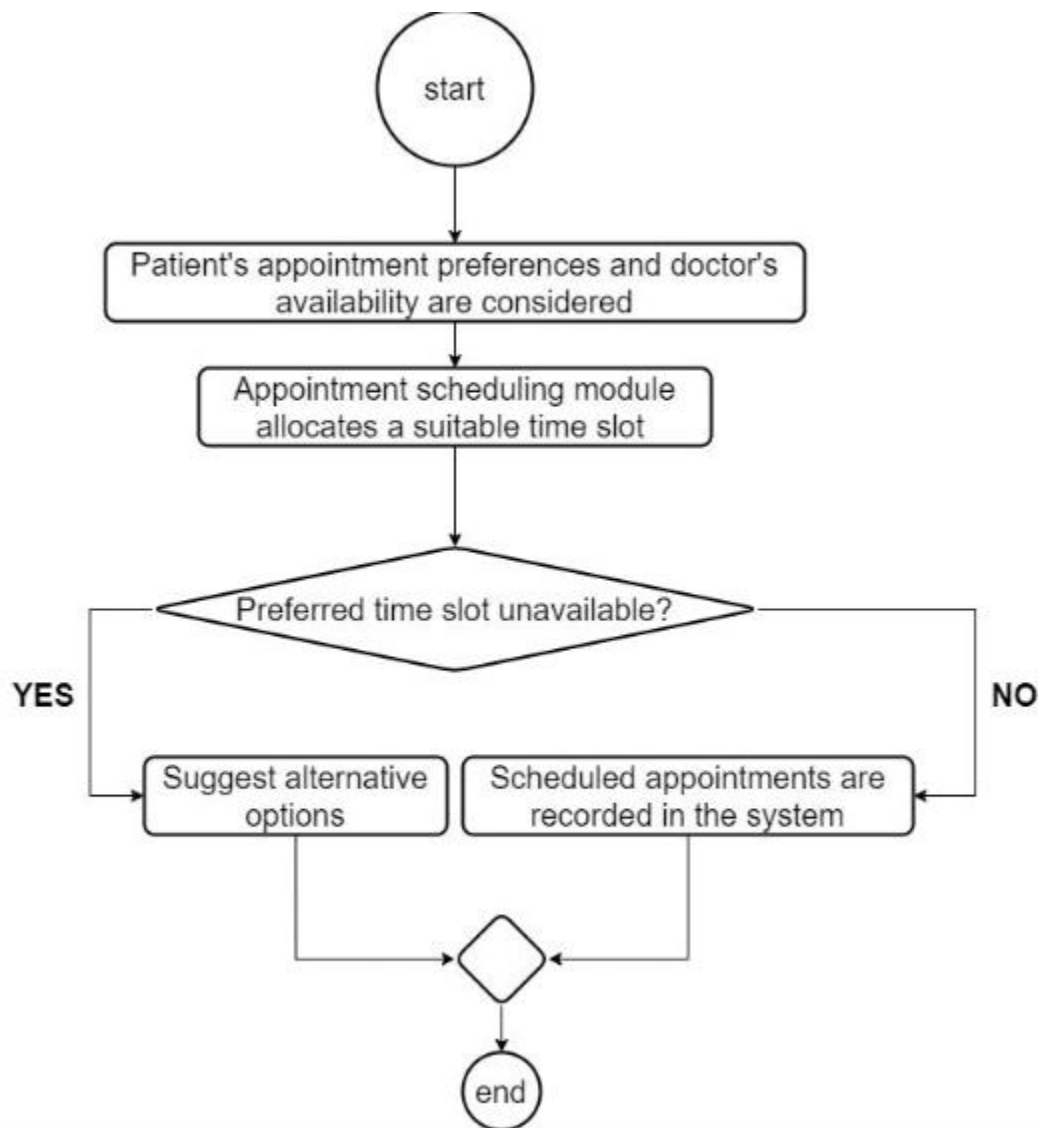


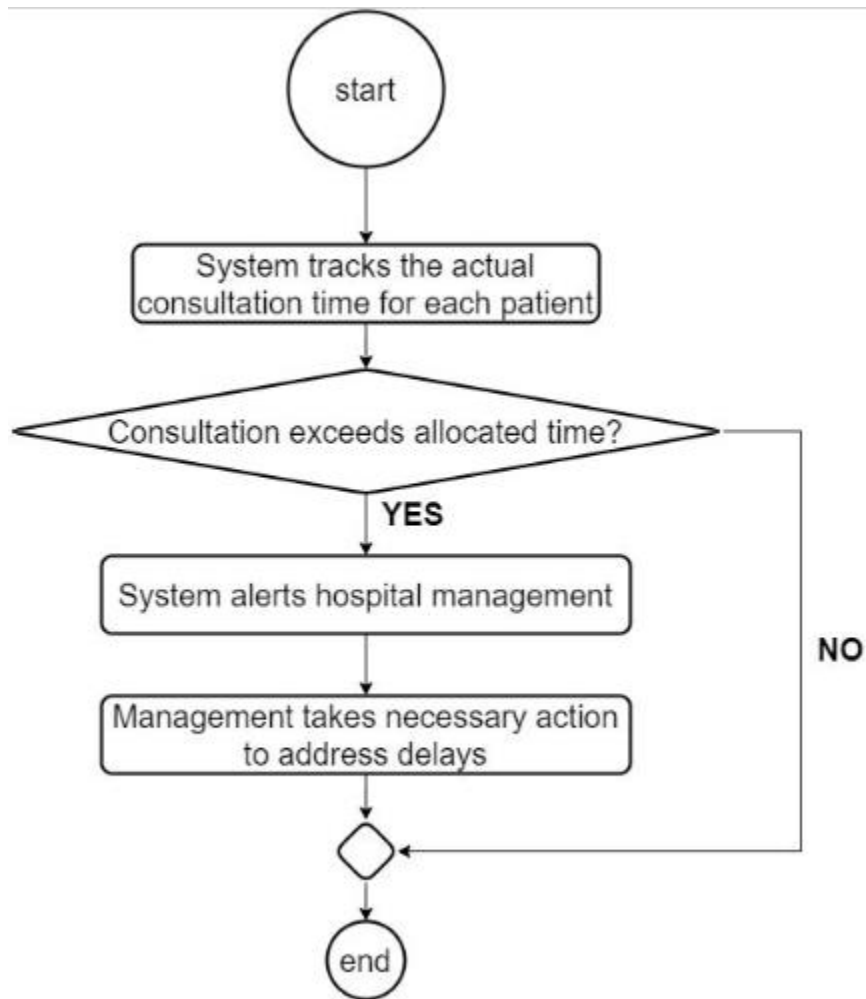
Data Structure

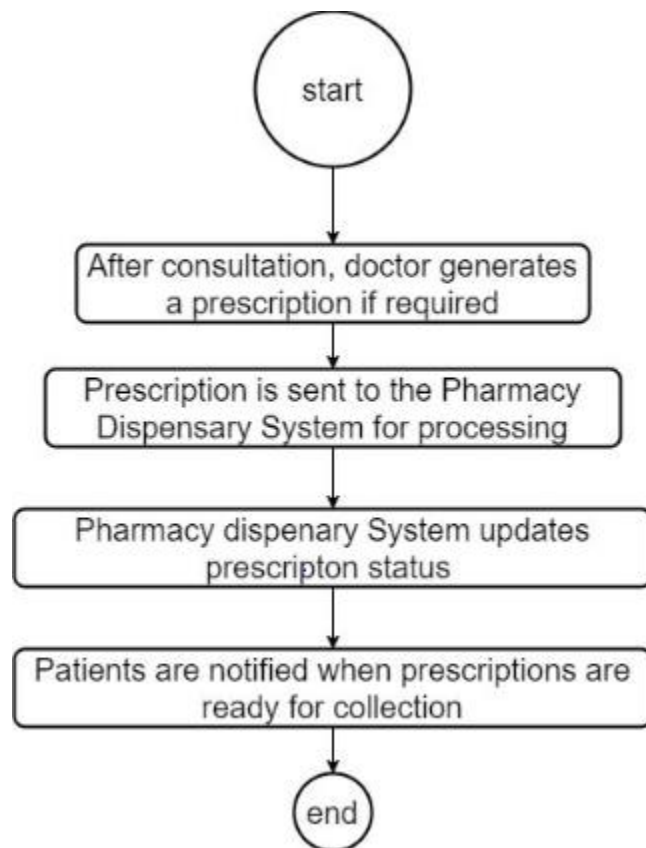
This section should describe the data structure in the RDBMS.



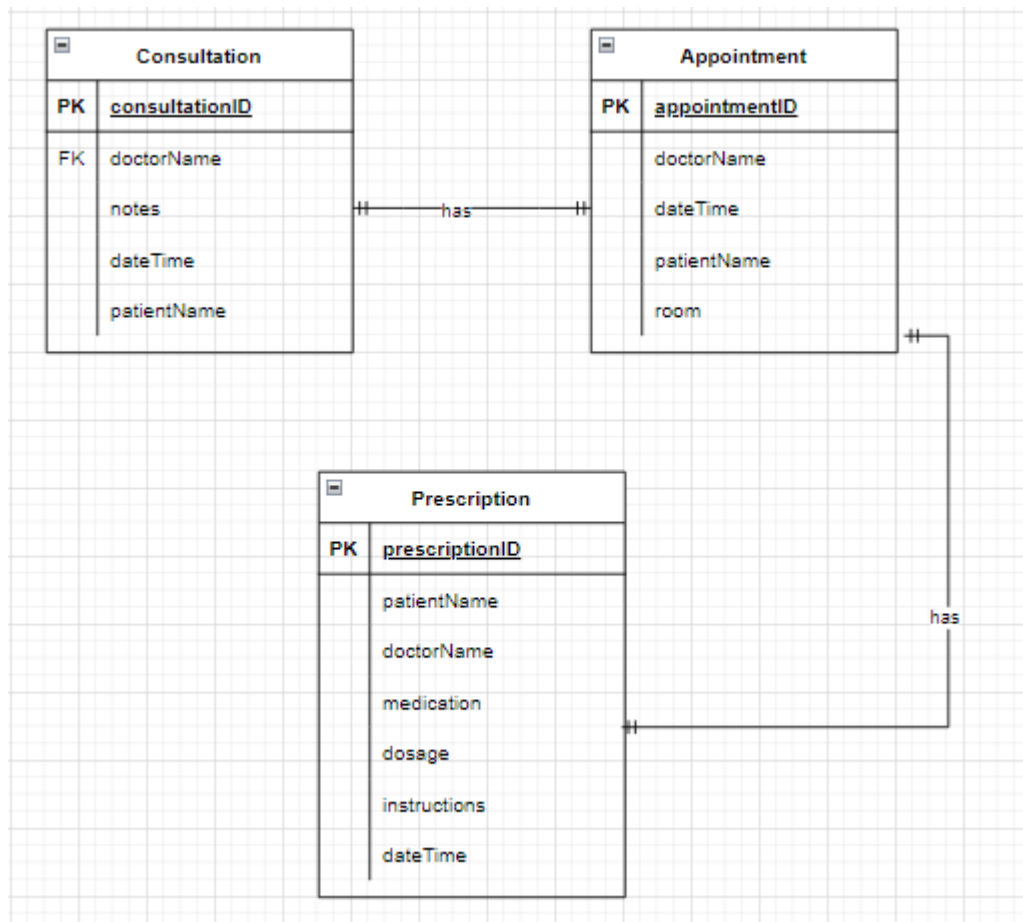








Entity Relation Diagram (ERD)



Data dictionary

Consultation Table

Field Name	Data Type	Field Size	Constraint	Description
consultationID	number	10	Primary Key	Unique number ID for consultation, Auto generated
doctorName	varchar2	255	Not null	Doctor name
notes	varchar2	255	Not null	Notes generated by doctor
dateTime	varchar2	6	Not null	Date time consultation
patientName	varchar2	255	Not null	Patient name

Appointment Table

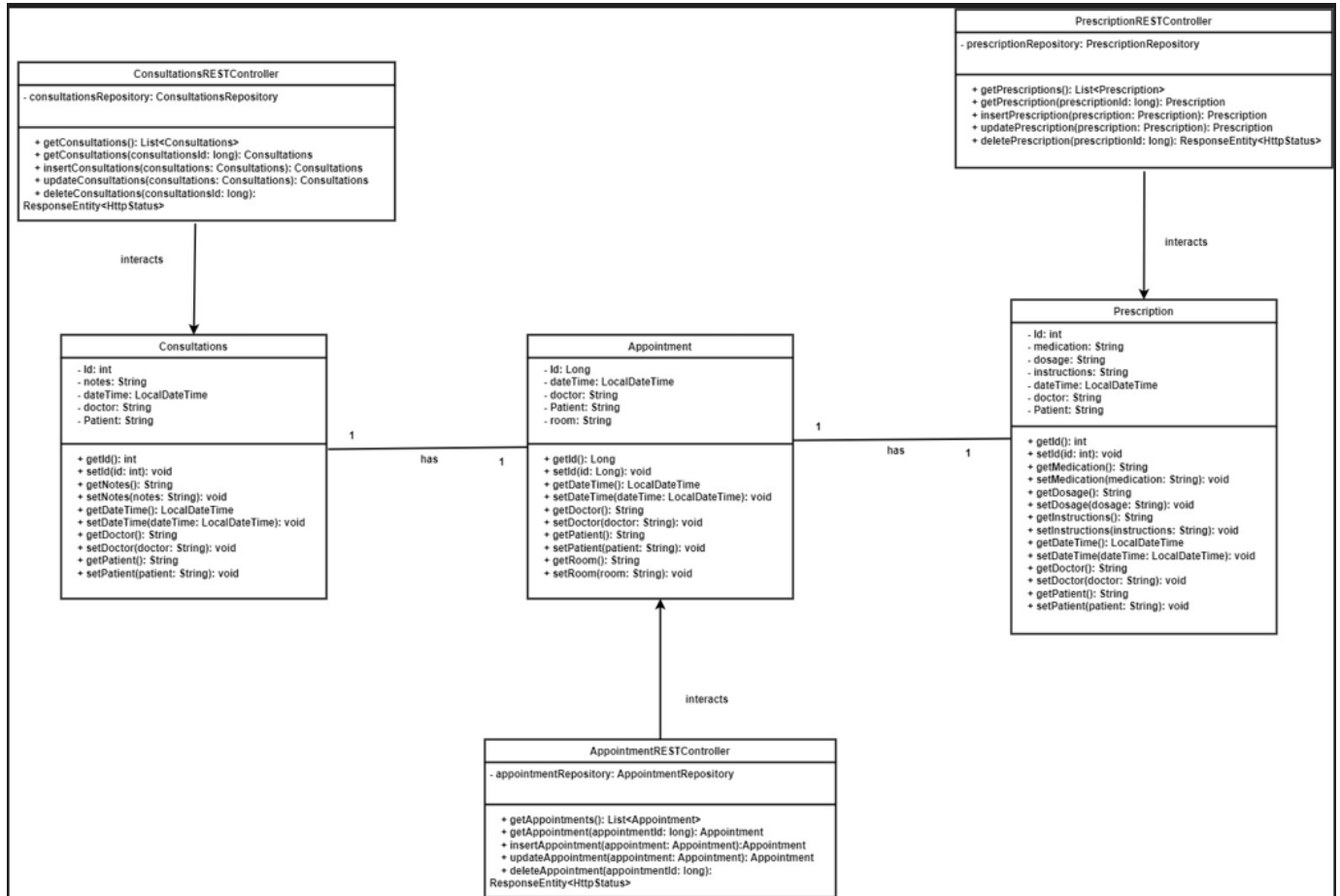
Field Name	Data Type	Field Size	Constraint	Description
appointmentID	number	10	Primary Key	Unique number ID for appointment, Auto generated
doctorName	varchar2	255	Not null	Doctor name
patientName	varchar2	255	Not null	Patient name
dateTime	varchar2	6	Not null	Date time appointment
room	varchar2	255	Not null	Room

Prescription Table

Field Name	Data Type	Field Size	Constraint	Description
prescriptionID	number	10	Primary Key	Unique number ID for prescription, Auto generated
patientName	varchar2	255	Not null	Patient name
doctorName	varchar2	255	Not null	Doctor name
medication	varchar2	255	Not null	Medication name, type
dosage	varchar2	255	Not null	Dosage
instructions	varchar2	255	Not null	Instructions
dateTime	varchar2	6	Not null	Date time prescription

Implementation of Data Layer

This section should describe the data layer implementation that refers to the entity classes and repository interfaces. The description includes class diagrams (complete class structure and relations) and mapping of entities to tables in the description.

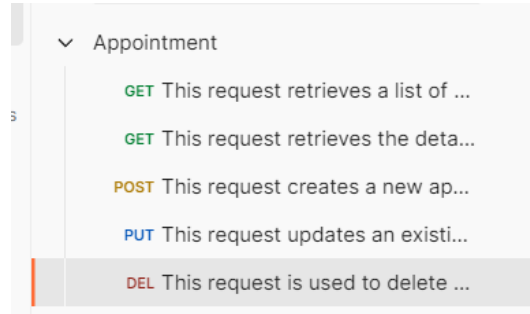


UML Class Diagram

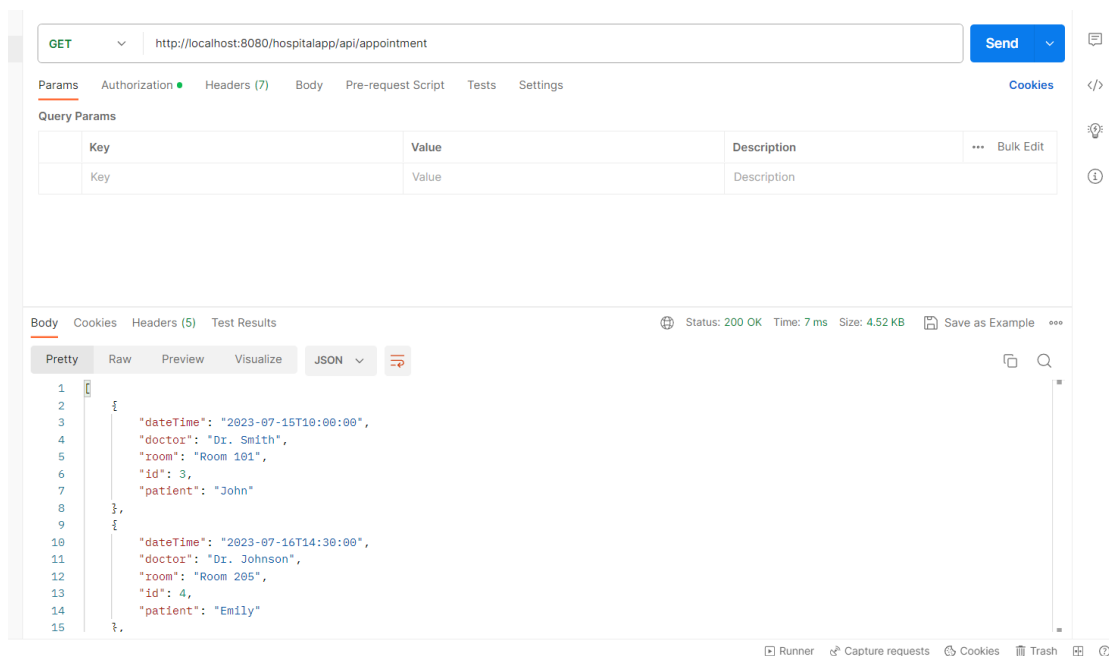
Implementation of Web Services

This section should describe the implementation of web services. The description includes the classes, web methods, Web API, and the JSON data structures from Postman.

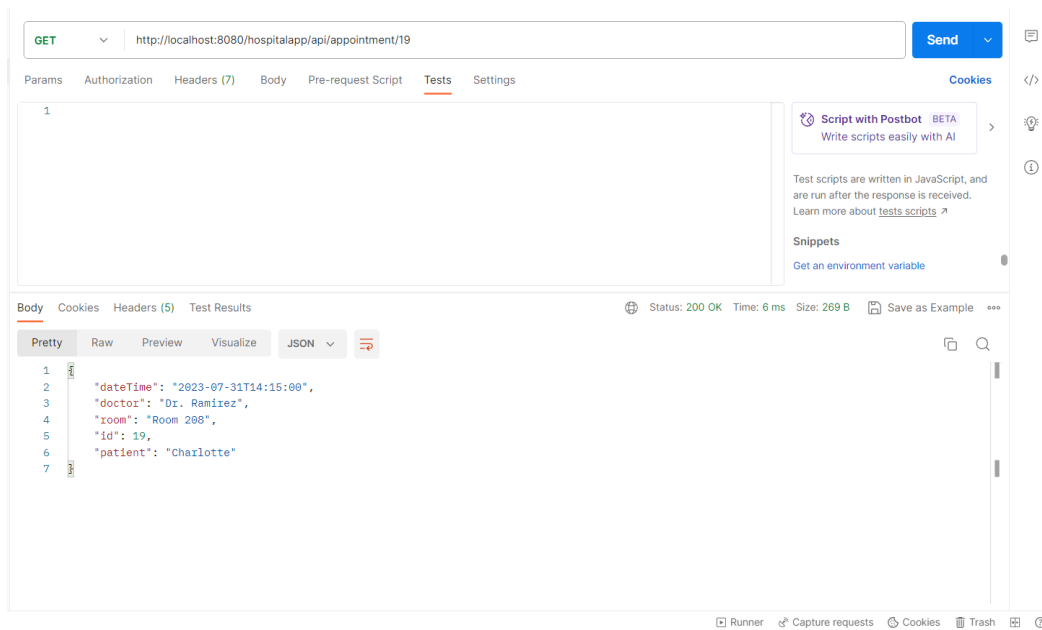
Appointment



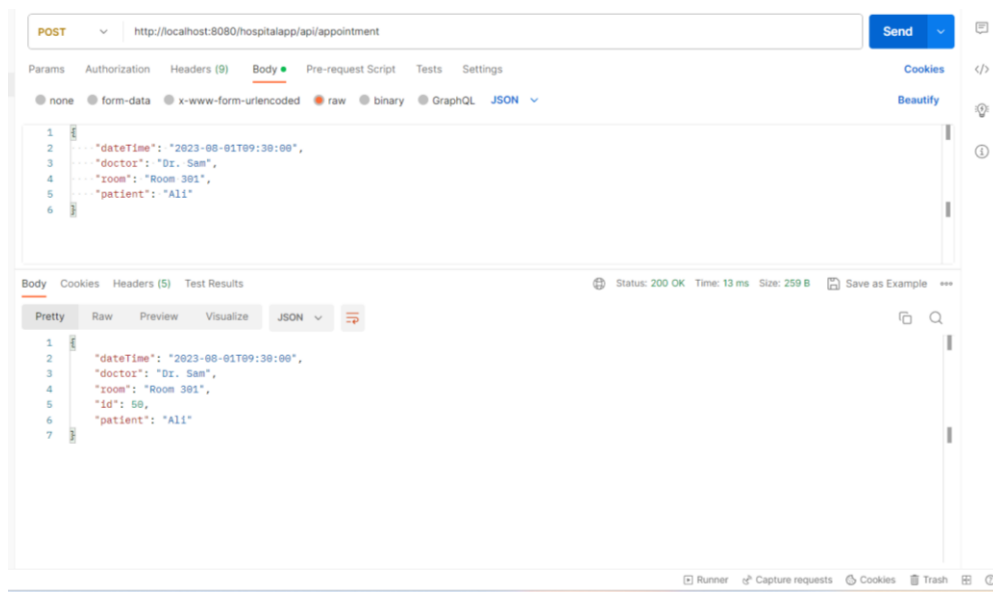
Method that using for Appointment



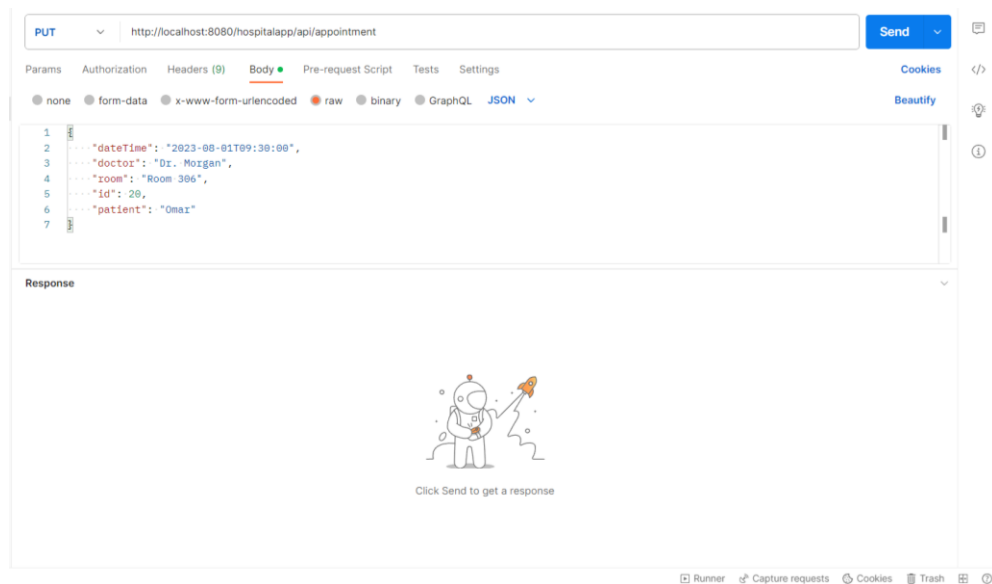
GET method to list of all appointment



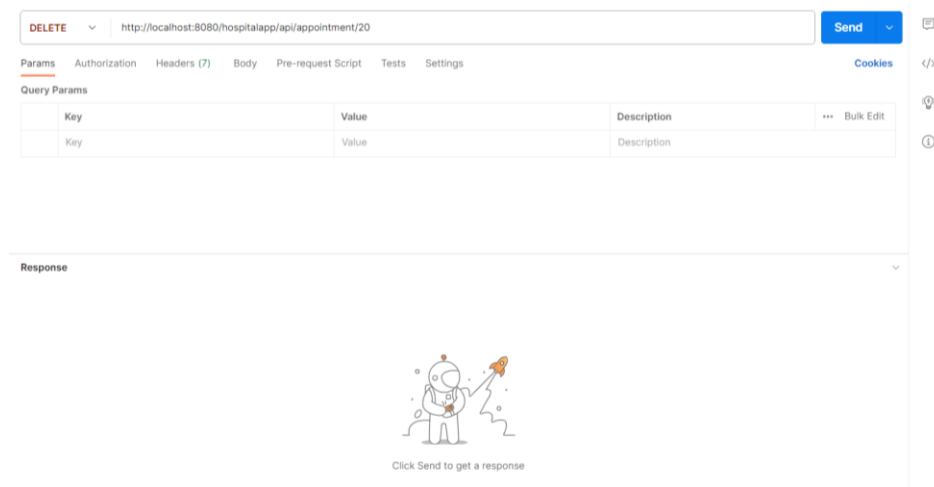
GET method to list of appointment by ID



POST method to creates new appointment



PUT method to update appointment

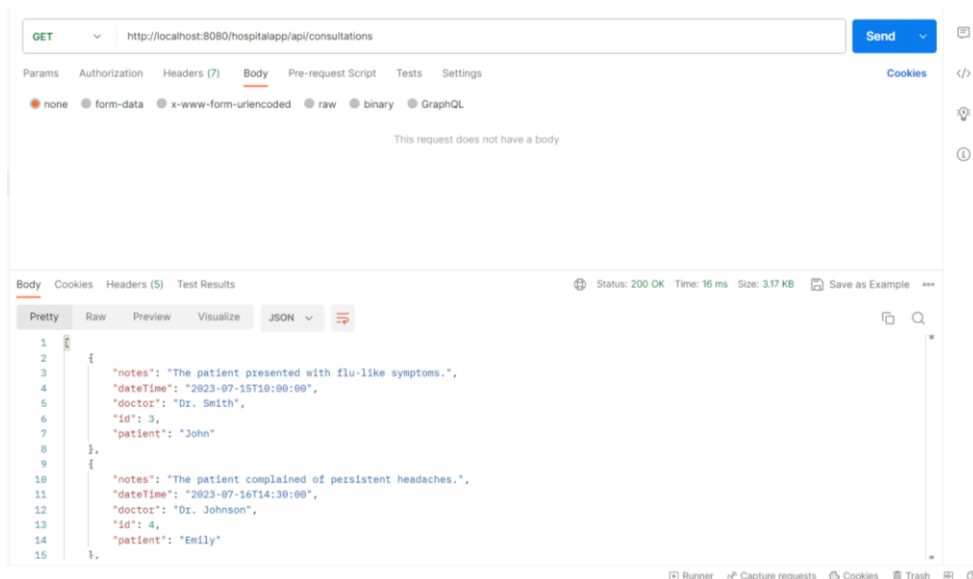


DELETE method to delete appointment

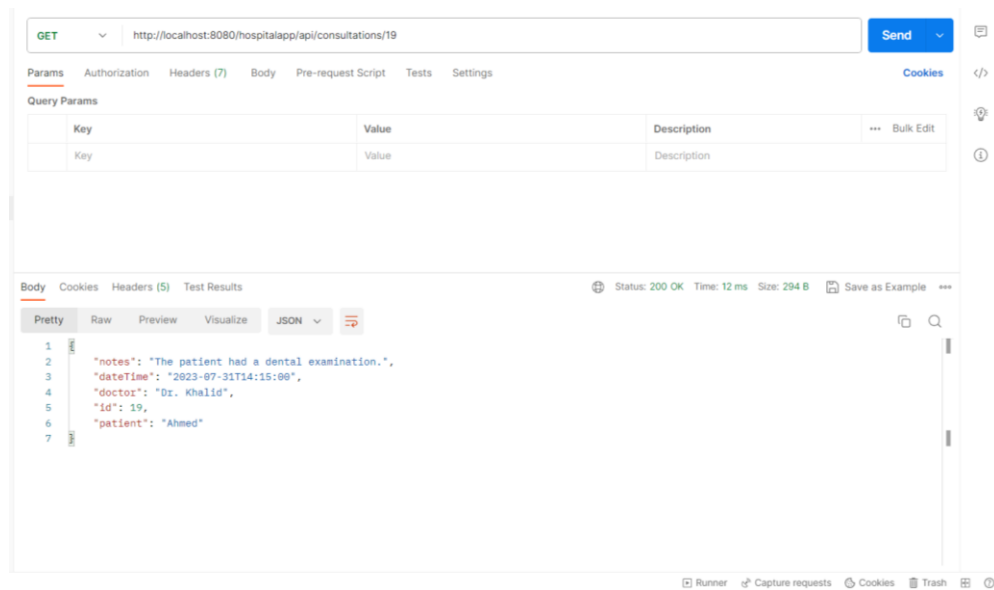
Consultation

Consultations	
GET	This request retrieves a list of ...
GET	This request retrieves the deta...
POST	This request is used to create ...
PUT	This request is used to update ...
DEL	This request is used to delete ...

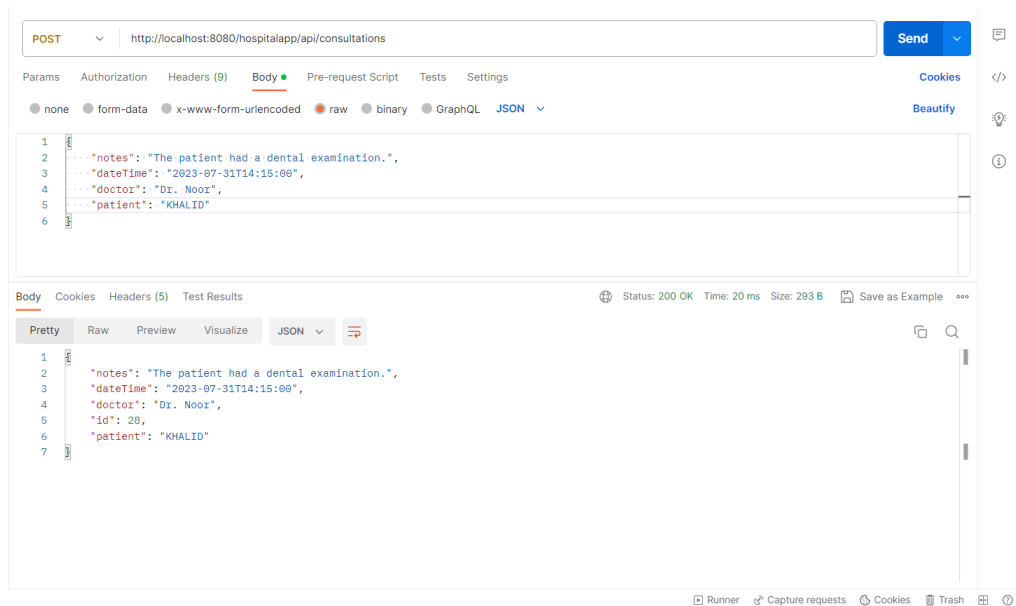
Method that using for Consultation



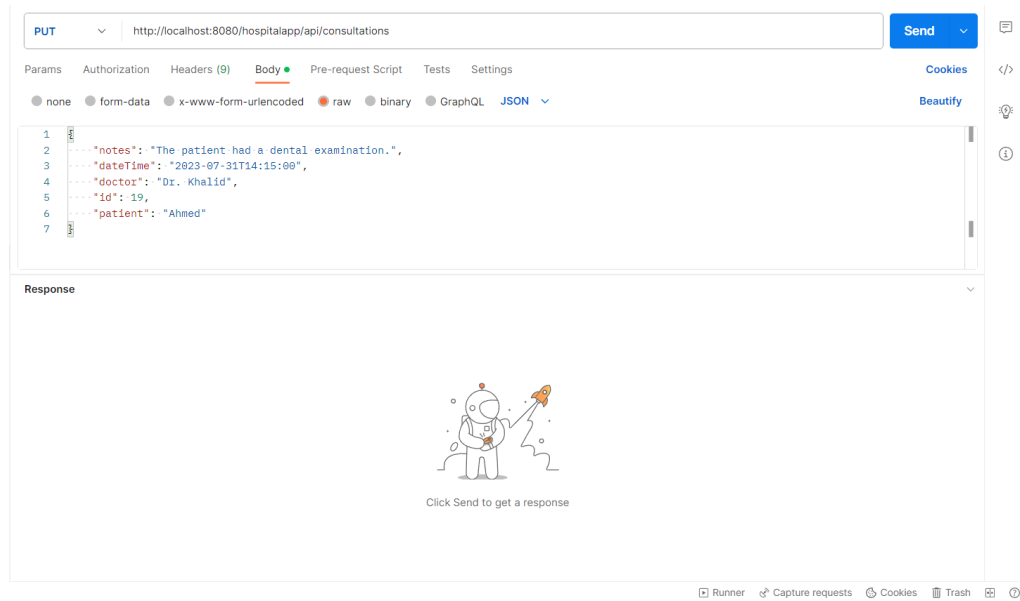
GET method to list of all consultation



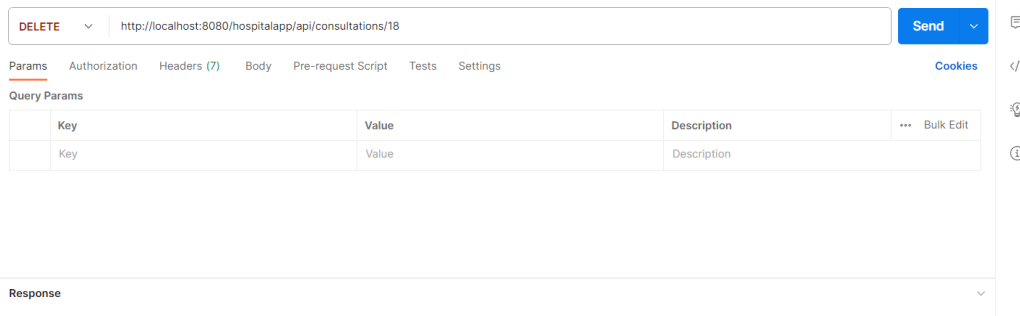
GET method to list of consultation by ID



POST method to create new consultation

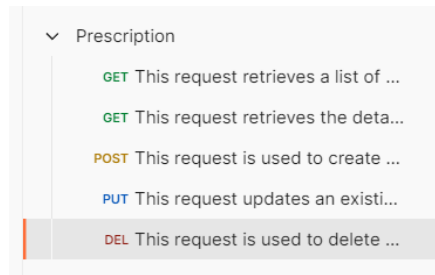


PUT method to update consultation

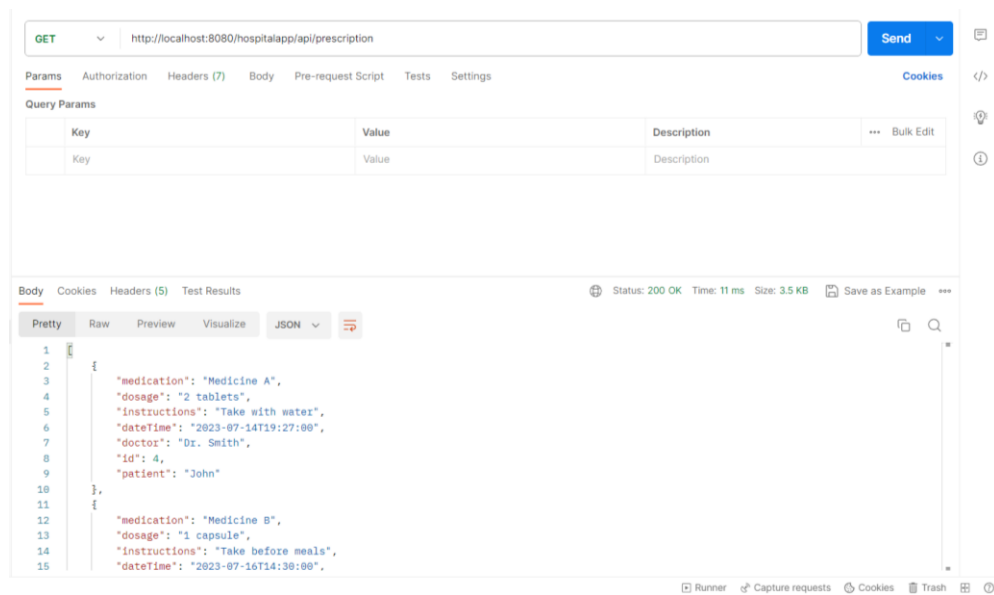


DELETE method to delete consultation

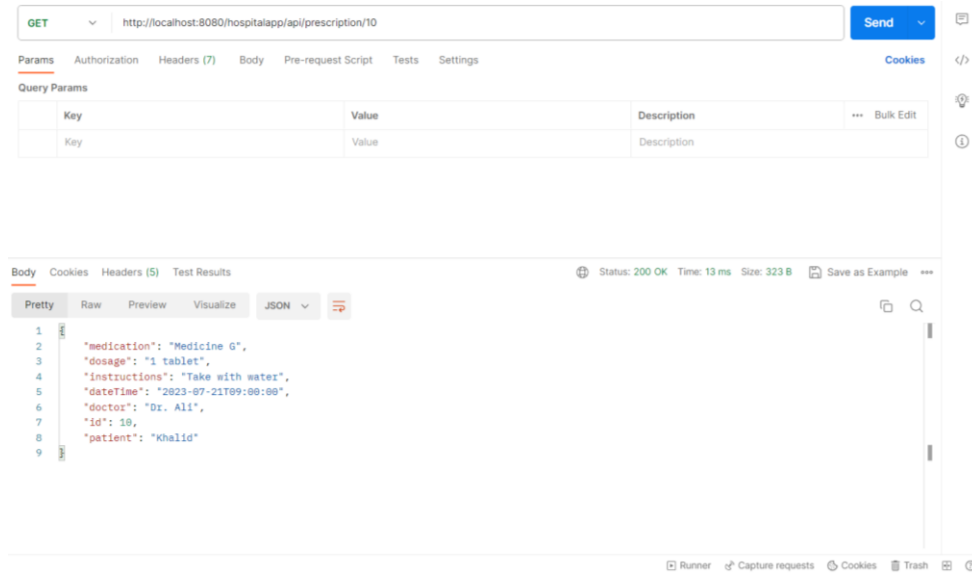
Prescription



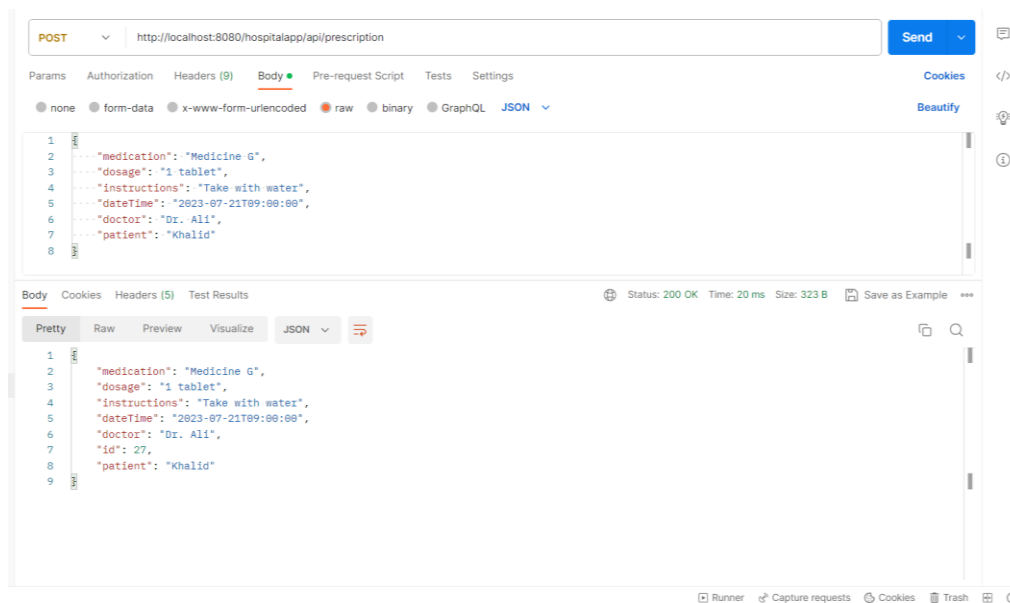
Method that using for Prescription



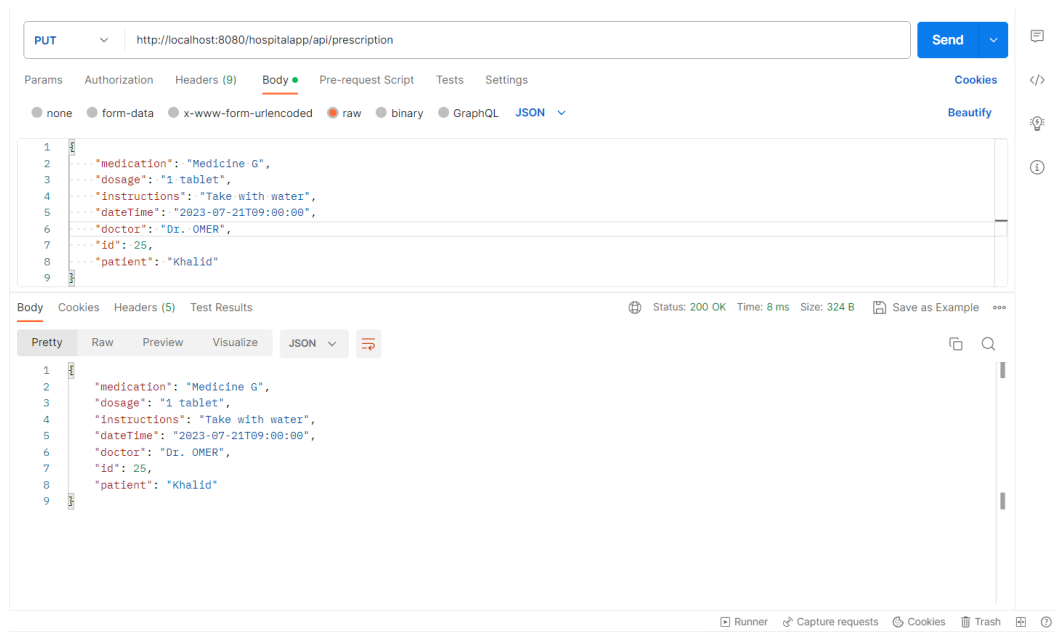
GET method to list of all prescription



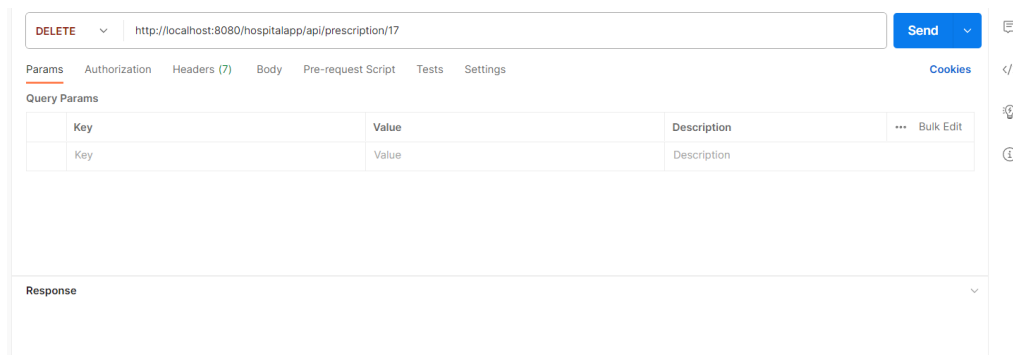
GET method to list of prescription by ID



POST method to create new prescription



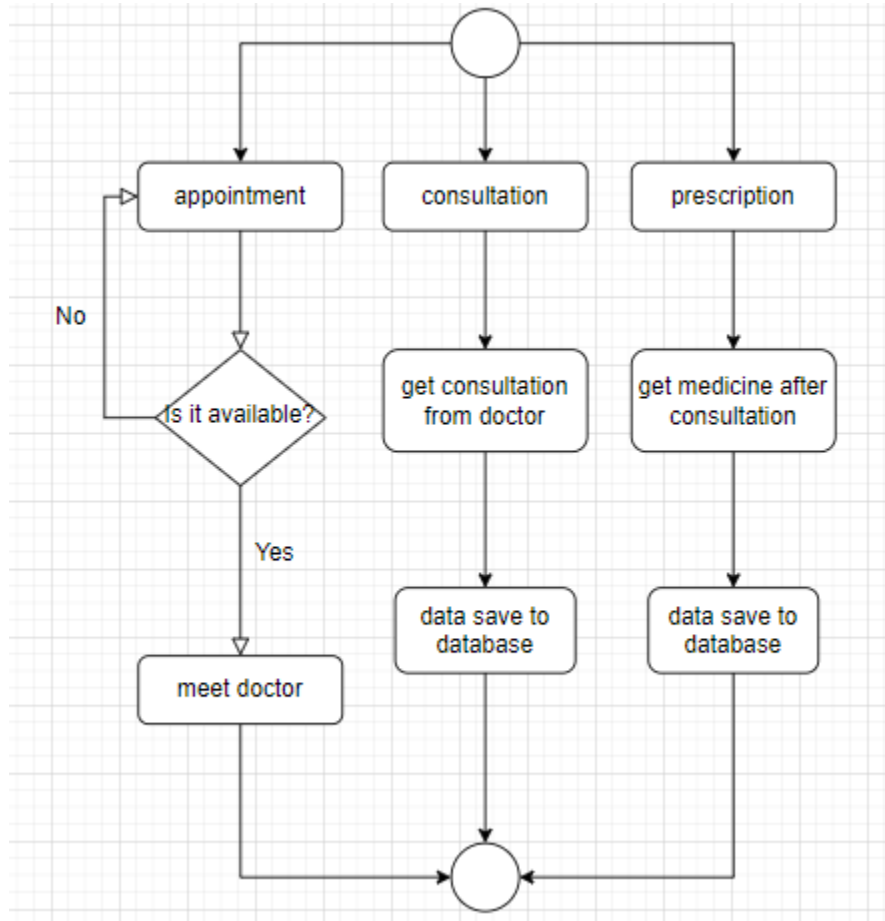
PUT method to update prescription



DELETE method to delete prescription

Implementation of Front-End Controllers

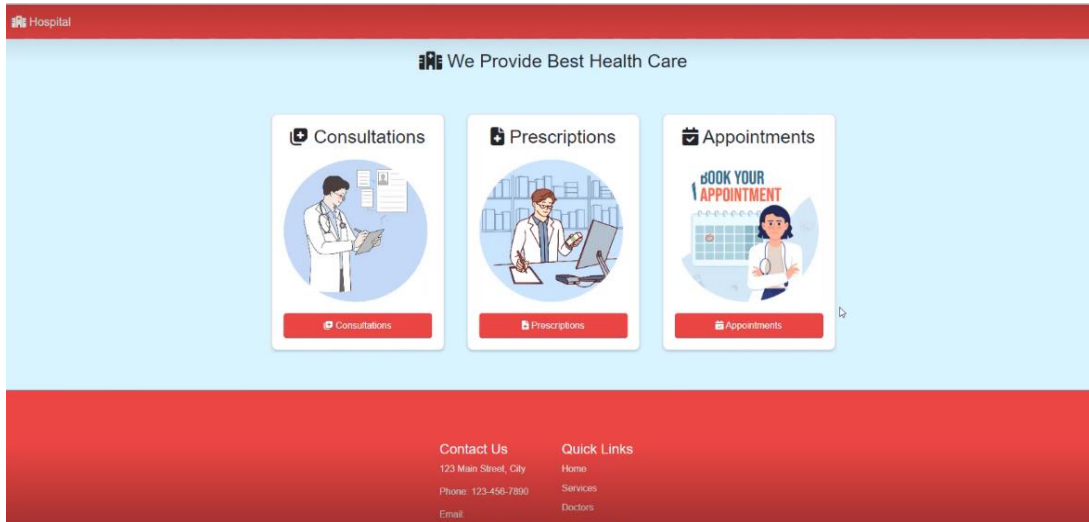
This section should describe the implementation of front-end controllers. Use several diagrams to describe the relationship between the classes.



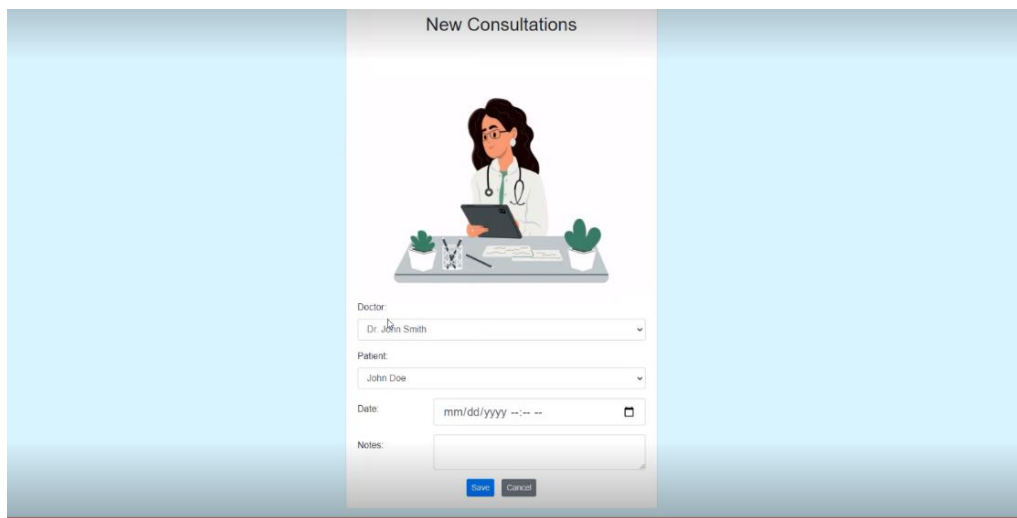
- Appointment: Patients make appointments to meet doctors and if not available, they can reschedule new appointments.
- Consultation: Patient meets doctor to get a consultation and save the patient's details on the database.
- Prescription: After patients meet a doctor for consultations, they can get a prescription and also these details will save to the database.

Implementation of Front-End

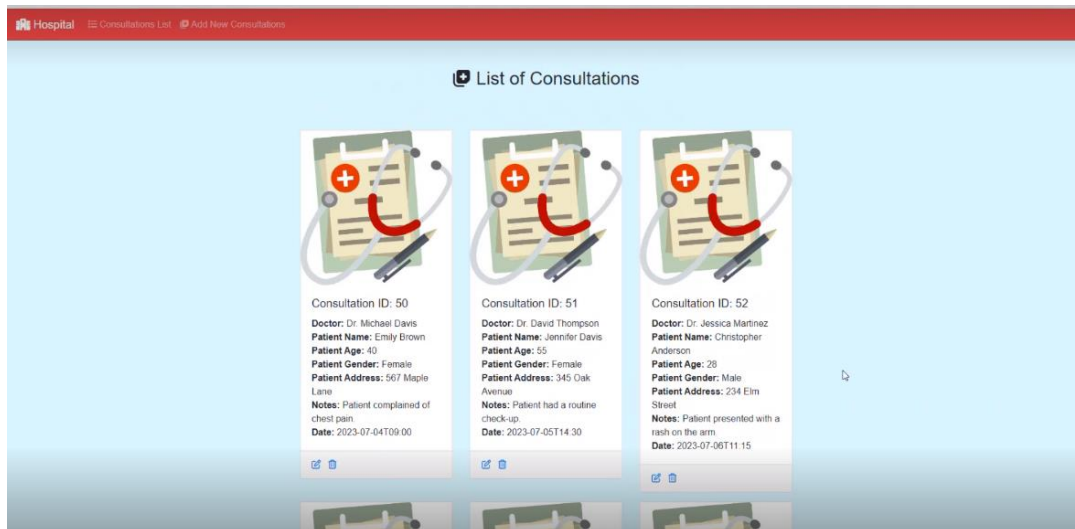
This section should describe the front end of the project. The description includes the screenshots, relations to classes, file name and data processed by the front end.



Main page



Consultation page



List of Consultation page

New Prescription

Doctor:

Patient:

Medication:

Dosage:

Instructions:

Date:

Prescription page

Hospital
Prescriptions List
Add New prescription

List of Prescriptions

Prescription ID: 1
Doctor: Dr. John Smith
Patient Name: John Doe
Patient Age: 25
Patient Gender: Male
Patient Address: 123 Main Street
Medication: Medicine A
Dosage: 2 tablets
Instructions: Take with water.
Date: 2023-07-04T22:10

Prescription ID: 2
Doctor: Dr. Emily Johnson
Patient Name: Jane Smith
Patient Age: 32
Patient Gender: Female
Patient Address: 456 Elm Street
Medication: Medicine B
Dosage: 1 capsule
Instructions: Take after meals
Date: 2023-07-04T22:11

Prescription ID: 3
Doctor: Dr. Michael Davis
Patient Name: Michael Johnson
Patient Age: 47
Patient Gender: Male
Patient Address: 789 Oak Avenue
Medication: Medicine C
Dosage: 1 teaspoon
Instructions: Take before bedtime
Date: 2023-07-04T22:12

List of Prescription page

Hospital
Appointments List
New Appointment

Appointment Request

Date:

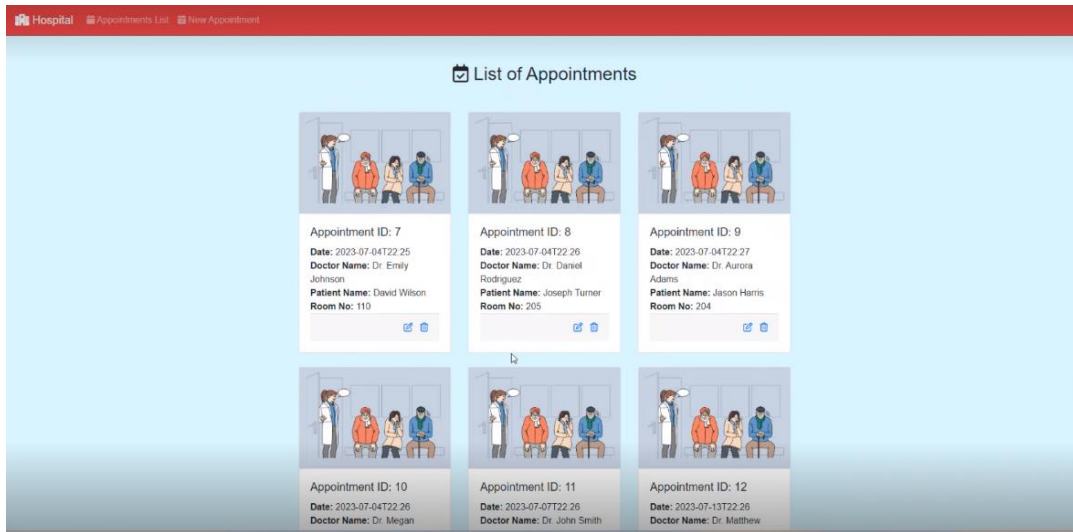
Doctor:

Patient:

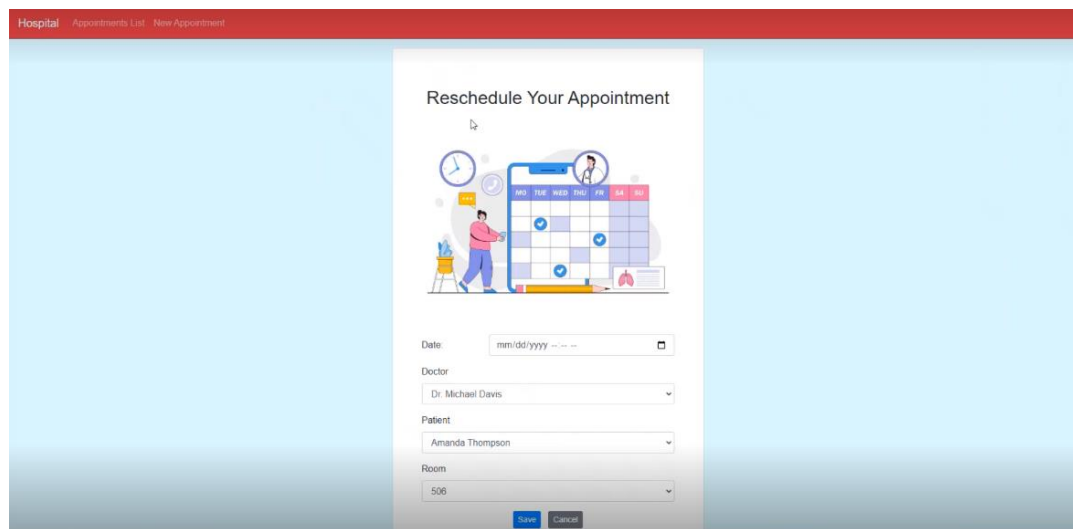
Room:

Save Cancel

Appointment page



List of Appointment page



Reschedule Appointment page

In conclusion, the Clinical Consultation Appointment System will significantly improve the appointment management process at the government hospital, fostering better patient-provider interactions and ultimately enhancing the overall healthcare services provided to the community.