

Assignment A2.1

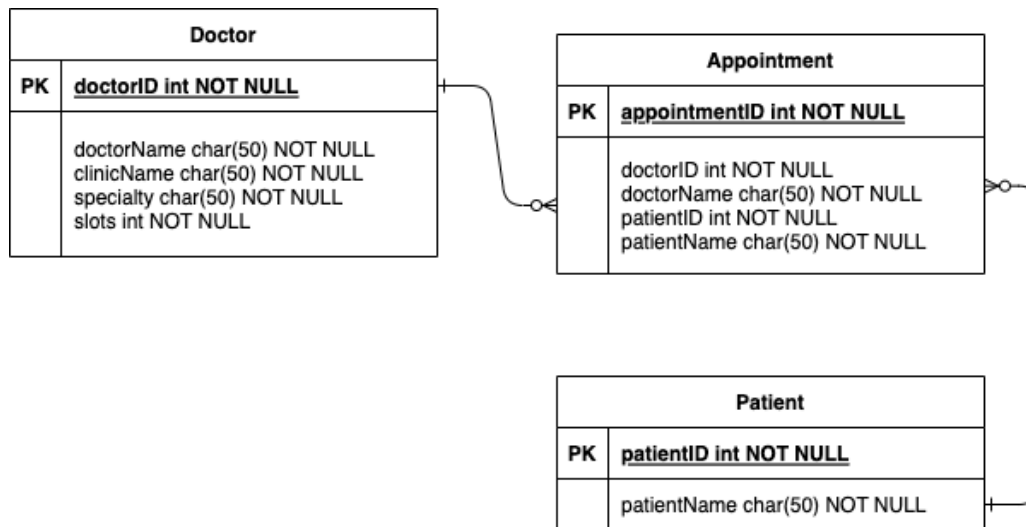
GraphQL API

Part 1: API Design Task

Domain: A software platform that supports small medical practices by providing tools to build an online presence, help recruit new patients, and manage pre and post-visit interactions with patients.

Resources: Patients, doctors, and appointments.

Object Graph:



Queries:

Name	Input	Output
GetAllDoctors	-	List of all objects and all doctors' details like name, clinic name, specialty
GetDoctorByID	Doctor ID	An object of the specific doctor's details like name, clinic name, specialty
GetAvailableSlotsByDoctorID	Doctor ID	Number of slots available for a specific doctor for today

Mutations:

Name	Input	Output
BookAppointment	Doctor ID, Doctor name, Patient ID, Patient name	Boolean true if appointment confirmed along with the appointment ID, false if the slots are full
CancelAppointment	Appointment ID	Boolean true if the appointment is canceled, false if the appointment doesn't exist
UpdatePatientName	Appointment ID, New patient name	Boolean true if the update takes place, false if the appointment doesn't exist

Endpoint: localhost:4000/graphql

Part 2: Test Case Design

Test Case Identifier	Test Case Description	Inputs	Expected Output	Remarks
GetAllDoctorsSuccess	A list of all doctors is requested while fetching valid fields	-	List of objects of all doctors	A list of objects is returned successfully
GetAllDoctorsFail	A list of all doctors is requested while fetching an invalid field	Try fetching a 'time slot' field which doesn't exist	Error	An error is thrown since the 'time slot' field doesn't exist
GetDoctorByIDS success	A valid doctor ID is requested	Valid doctor ID	A valid doctor object with details like doctor name, id, clinic name, specialty, and slots available.	An object with the requested details for the concerned doctor is returned successfully.

GetDoctorByIDFail	An invalid doctor ID is requested	Invalid doctor ID	Error	An error is thrown that the requested object does not exist.
GetAvailableSlotsByDoctorIDSuccess	A valid doctor ID is requested	Valid doctor ID	Number of slots available for the specific doctor.	A number between 0 and 16 will be returned.
GetAvailableSlotsByDoctorIDFail	An invalid doctor ID is requested	Invalid doctor ID	Error	Due to failure of finding the requested object, an error will be thrown.
BookAppointmentSuccess	A valid doctor ID and patient ID are entered	Valid doctor ID, doctor name, patient ID, patient name	Valid appointment ID	An appointment ID will be generated and returned. The number of available slots for the concerned doctor decreases by 1.
BookAppointmentFail	An invalid doctor ID is entered	Invalid doctor ID, doctor name, patient ID, patient name	Error	The doctor details won't be found, hence the system will fail to book an appointment, returning an error.
CancelAppointmentSuccess	A valid appointment ID is entered	Valid appointment ID	Returns null if the appointment is successfully canceled.	The requested appointment will be canceled successfully. The number of available slots for the concerned doctor increases by 1.
CancelAppointmentFail	An invalid appointment ID is entered	Invalid appointment ID	Error	The requested appointment will not be found,

				returning an error.
UpdatePatientNameSuccess	A valid appointment ID is requested	Valid appointment ID, New patient name	Updated appointment object with details like appointment ID, patient ID, patient's name, and doctor ID and the doctor's name.	The existing appointment will be updated and the previous patient name will be replaced with the new one.
UpdatePatientNameFail	An invalid appointment ID is requested	Invalid appointment ID, New patient name	Error	The requested appointment will not be found and no update will take place, returning an error.