Use Case Diagram

Qalb+

- View Profile
- Login
- Logout
- Register
- Register Treatment provider
- Register patient
- Book appointment
- Upload credentials
- Manage Credentials
- Unverify credentials
- Verify credentials
- Find treatment provider
  - extension point
  - Match insurance
- Contact treatment provider

<<extend>>

Only search for Treatment providers who match the insurance

Condition:

Patient has indicated that they want to match the insurance of the Treatment Providers shown

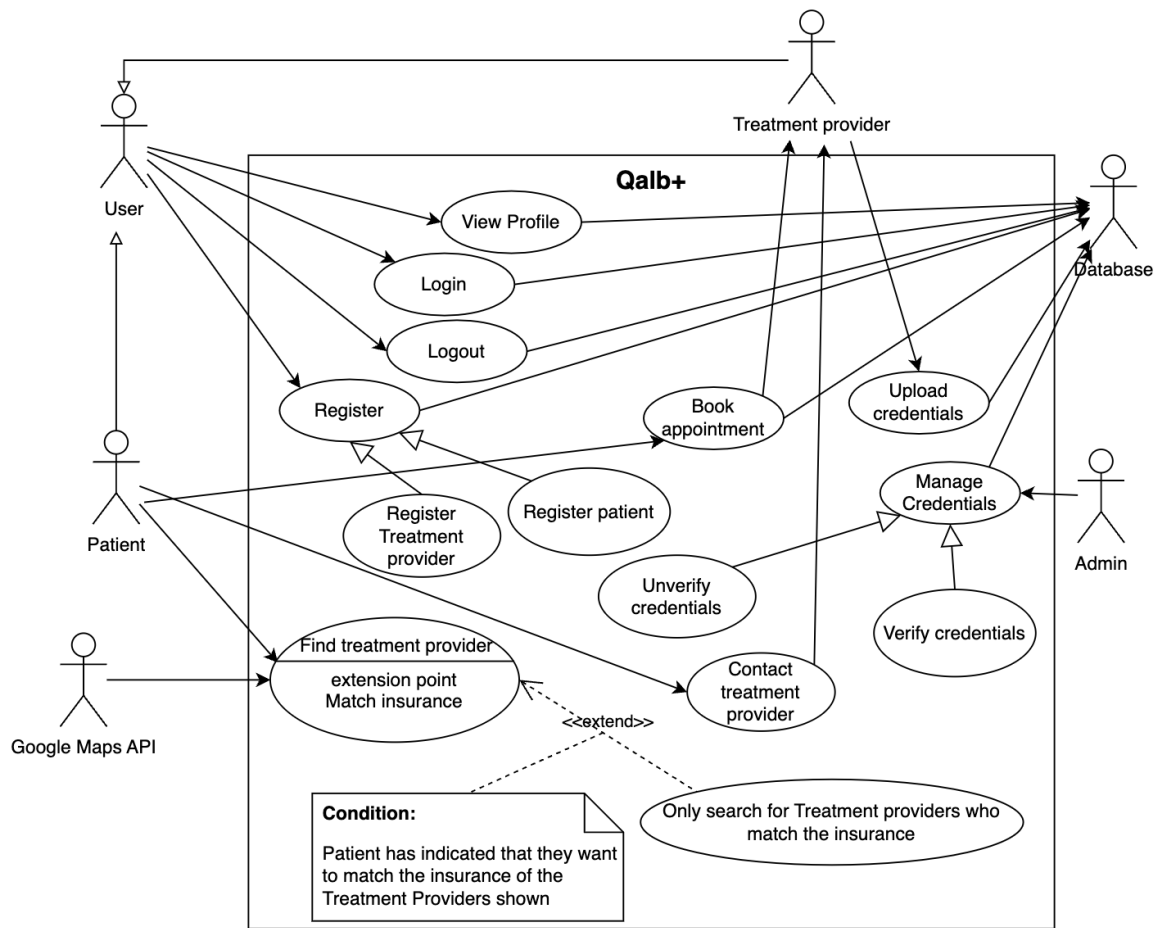Actors: User, Patient, Google Maps API, Treatment provider, Database, Admin

Use case scenarios

Qalb+

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USE CASE NAME:	Register	**USE CASE TYPE** **Business Requirements:**
USE CASE ID:	001	
PRIORITY:	High; this is one of the main ways we can have paying members.	
PRIMARY BUSINESS ACTOR:	Any type of user (patients or treatment providers)	
OTHER PARTICIPATING ACTORS:		
OTHER INTERESTED STAKEHOLDERS:	Admin; for verifying submitted medical credentials.	
SHORT DESCRIPTION:	In this scenario, patients or treatment providers register on the system as a user. The precise outcome of registration will depend on whether someone is registering as a patient or a treatment provider.	
PRE-CONDITION:	The system must have just been opened	
TRIGGER:	Pressing the Register button	
TYPICAL COURSE OF EVENTS:	**Actor Action**	**System Response**
	Step 1: The user presses the Register button	**Step 2**: The System asks what type of user they are.
	Step 3: The user selects whether they are a patient or treatment provider.	**Step 4**: Takes the user to a form where they enter their details based on their selection.
	Step 5: The user enters details and submits.	**Step 6**: The system validates all the input (no special characters or letters in the mobile number section e.t.c.). If there are issues, then the system asks the user to input the data again. The system will create an instant of either Patient or Treatment Provider based on the previous steps. If a user is registering as a treatment provider, the system will keep their account deactivated until they pay the registration and subscription fees & upload their medical credentials. This state information will be encoded in the Treatment Provider object.
ALTERNATE COURSES:		
CONCLUSION:		

POST-CONDITION:	User is now on the main screen (where they can access the different features based on the type of user that they are)
BUSINESS RULES:	Treatment Providers can activate their account only after they pay registration fees, subscription fees, and verify their medical credentials.
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS:	
ASSUMPTIONS:	We are assuming users are accessing this web application in desktop mode from modern browsers such as Chrome, Safari, Firefox, etc.
OPEN ISSUES:	One open problem that we cannot directly tackle is verifying medical credentials. Doing so requires in-depth understanding of the health care rules and regulations of Abu Dhabi, coordinating with the relevant government authorities, and granting them access to our database. However, at a mere level of implementation, we will set up an Admin class which will have the privilege to review, grant, and revoke verification status of submitted medical credentials.

USE CASE NAME:	Book Appointment	USE CASE TYPE
USE CASE ID:	002	**Business Requirements:**
PRIORITY:	High; one of the primary reasons patients will use our system will be to book appointments with treatment providers.	
PRIMARY BUSINESS ACTOR:	Patients	
OTHER PARTICIPATING ACTORS:	● Treatment Provider	
OTHER INTERESTED STAKEHOLDERS:		
SHORT DESCRIPTION:		
PRE-CONDITION:	The user is logged in as a patient, and has chosen a specific treatment provider	
TRIGGER:	Pressing the "Book Appointment" button	

TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The Patient presses the "Book Appointment" button with a specific Treatment Provider.	**Step 2**: The System shows available dates and times for the patient to choose. Optional information is whether a particular Treatment Provider accepts a given health insurance if the Patient has uploaded health insurance information.
	Step 3: The user picks a suitable date and time slot and confirms their choice.	**Step 4**: takes this information and stores it on the database, and also creates a new appointment object.
		Step 5: The system updates to show the treatment provider the new appointment, and also shows it to the patient as an 'upcoming appointment'

ALTERNATE COURSES:	
CONCLUSION:	
POST-CONDITION:	Patient is redirected to the main screen. The treatment provider and the patient can view the newly created appointment.
BUSINESS RULES:	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS:	
ASSUMPTIONS:	We are assuming users are accessing this web application in desktop mode from modern browsers such as Chrome, Safari, Firefox, etc. Furthermore, at this point the patient has already gone through a list of available treatment providers Moreover, the Patient is responsible for keeping in mind whether their insurance is accepted by the treatment provider. The system will let a Patient book an appointment with any Treatment Provider. The system only informs the Patient with insurance details if the Patient has updated health insurance information. But the patient is free to disregard this information if they deem out-of-pocket billing suitable and affordable.
OPEN ISSUES:	1.

USE CASE NAME:	Find treatment Provider	**USE CASE TYPE**
USE CASE ID:	003	**Business Requirements:**
PRIORITY:	High. This feature will let users conveniently find treatment providers either nearby a given location.	
PRIMARY BUSINESS ACTOR:	Patients	
OTHER PARTICIPATING ACTORS:	● Google maps API	
OTHER INTERESTED STAKEHOLDERS:		
SHORT DESCRIPTION:		
PRE-CONDITION:	The user is logged in as a patient, and is on the main screen	
TRIGGER:	Pressing the "Find Treatment provider" button	

TYPICAL COURSE OF EVENTS:	**Actor Action**	**System Response**
	Step 1: The User presses the "Find Treatment provider" button	**Step 2**: The System would use the Google maps API to find nearest treatment Providers.
		Step 3: By default filters will provide a list of all treatment providers nearby. If a Patient has provided their health insurance details, then the search will list for each returned item whether the Treatment Provider accepts their health insurance plan or not.

		Step 4: Shows the final list of treatment providers to the user.
ALTERNATE COURSES:		
CONCLUSION:		
POST-CONDITION:	Patients can browse through the list of treatment providers.	
BUSINESS RULES:		
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS:	From a purely technical perspective our capacity to find nearby treatment providers is limited to performance and capacity of Google's implementation,which we will be treating as a black box in our implementation. However, given that Google is the gold standard for searching information the technical limits should easily accommodate the functionalities we have in mind.	
ASSUMPTIONS:	We are assuming users are accessing this web application in desktop mode from modern browsers such as Chrome, Safari, Firefox, etc.	
OPEN ISSUES:	One feature of the search function is if a Patient has updated their account with details of their health insurance plan, then the search function should mention that if a given Treatment Provider accepts their health insurance. However, certain aspects of health insurance means it is not always clear cut whether a treatment provider accepts their health insurance. Health insurance coverage for specific plans may have additional stipulations regarding specific procedures, surgeries, medications, etc.	