Software Engineering

Qalb+

Meet your 24x7 Doctor

Presented by

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Content
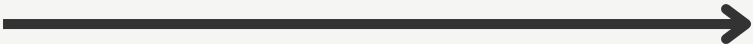
Problem

Could you rate how hard it is for you to reach health services while being sick and far away from home?

Solution

⟶

Imagine a platform where you can do things in this way:

- Input your location to find nearby doctors, physicians, and other licensed people who can provide health care.
- Book an appointment with them on the system.
- Check if your health insurance is accepted and then book an appointment.
- ...all this for free!

Stakeholders

- Patients

- Treatment Providers (e.g doctors, psychologists, anyone licensed to provide health care services)
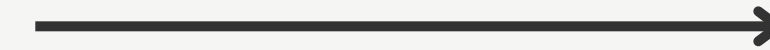
- UAE health authorities

Business model and Scope

1. Free for patients and Treatment providers until a sustainable growth and interest are generated.

2. Roll out fees for treatment providers.

3. Roll out fees for users on the patient side.

Requirement Gathering (TP)

- How much do you think you would benefit from a platform which allows patients in your proximity and those who match your insurance to be directed to you?

- For this system, how important would security be for you (Authorization/passwords and managing database user access)?

- How beneficial do you think a feature to advertise yourself on our system would be to you?

- Would you be willing to pay to show up on our platform?

- How beneficial would a communication system within our platform be for you?

Requirement Gathering (TP) - Results

How much do you think you would benefit from a platform which allows patients in your proximity and those who match your insurance to be directed to you?

Implementing these features makes me as a doctor more accessible or easier to reach. The insurance feature seems new, so perhaps if the system works properly I can get more people from a specific insurance!

I would definitely think that more patients would come to me because of this. So I would benefit from this a lot.

Requirement Gathering (TP) - Analysis

- The most important requirements for Treatment Provider User are:

  - An Authorization system, an insurance feature, and a distance feature.

- An advertisement feature, a subscription feature, and a communication feature are not

  necessary, but desired or optional.
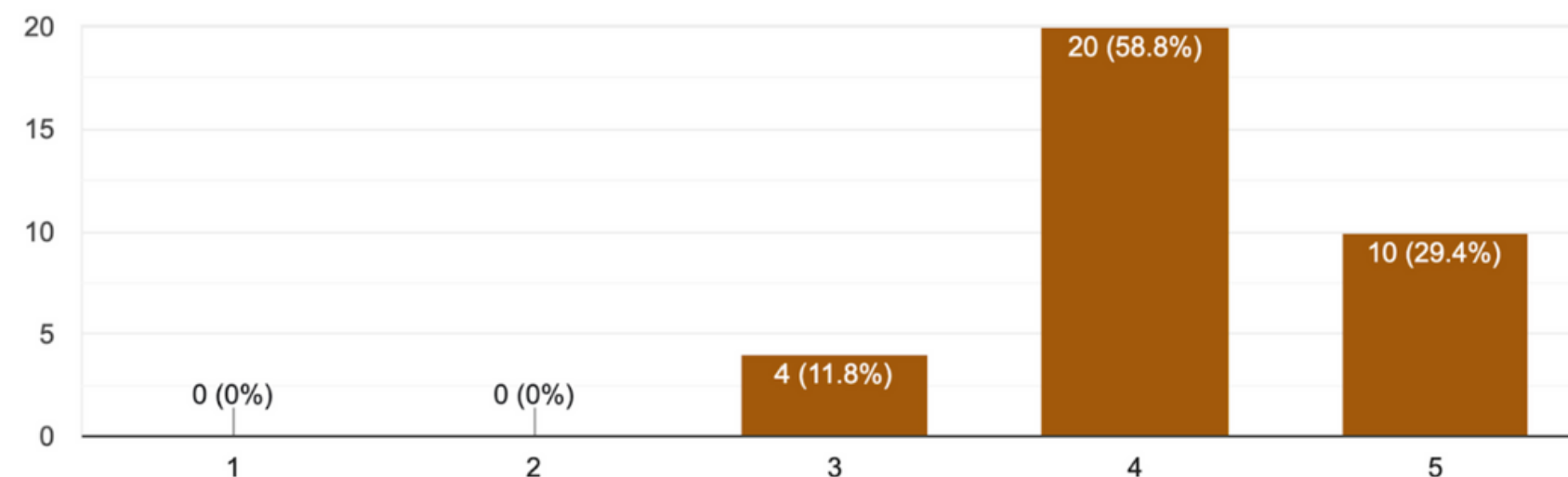
Requirement Gathering (Patient) ⟶

- During COVID lockdowns and restrictions you would have liked to connect with doctors online for issues and problems that could be discussed online.
- You will like to use a web application to locate nearby doctors.
- If you use a web application to locate nearby doctors, you will also want to book an appointment through the application.
- To trust a web platform for connecting with doctors, it is important to see if the platform verifies the credentials and licenses of the doctors using the system.
- If you use a web application to book appointments with doctors you would want to arrange online meetings.
- If a web application allows you to locate nearby doctors, check if the doctors can accept your health insurance, and book an appointment, would you create an account on the web application?

Requirement Gathering (Patients) - Results

How much do you think you would benefit from a platform which allows patients in your proximity and those who match your insurance to be directed to you?
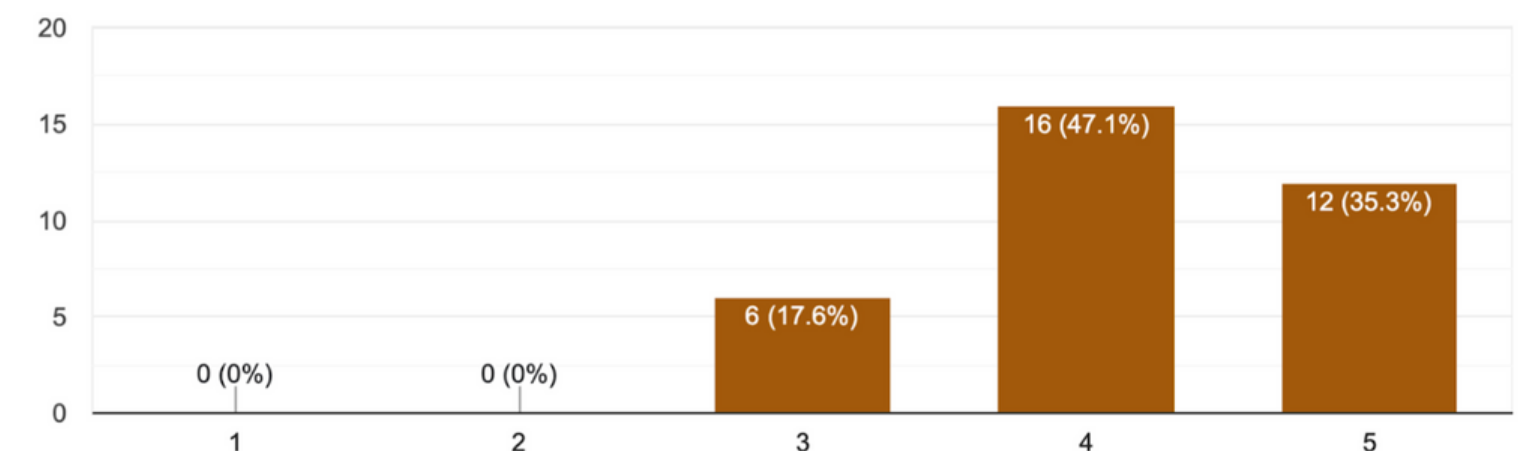

You will like to use a web application to locate nearby doctors.
34 responses

If a web application allows you to locate nearby doctors, check if the doctors can accept your health insurance, and book appointment, would you create an account on the web application?
34 responses

Requirement Gathering (Patient)- Analysis

- The survey results showed that:

  - There is a need for a product which allows patients to book appointments with treatment providers who accept their insurance, and have the option to see eligible treatment providers based on proximity.

  - The patients also want the credentials of all the listed treatment providers to be checked, as well as some kind of protection for their data.

Software Engineering

Requirements →

1. Implement a secure authentication system with login/signup and password reset/change features.
2. Store all the information in a well-protected and easy-to-access database.
3. Provide authorization access to the Patient user to connect with Treatment Providers and share/request information.
4. Provide different access levels to different users.
5. Allow Patients to search Treatment Providers by name and apply filters including insurance coverage, and specialty.
6. Allow Patient users to access information of all Treatment Providers, but not vice versa.
7. Give authorization access to the Treatment Provider to connect with the Patient and share/request details.
8. Connect the app with Google Maps API to get the distances.
9. The app should have a search feature to look up Treatment provider

Work distribution →

Backend
Ali, Maimuna, Raiyan

Frontend
Raiyan, Saoud, Maimuna, Shamma

Database
Maimuna, Ali

Documentation
Saoud, Shamma

Testing:
Maimuna, Ali

Technology used ⟶

Backend
Django Web Framework, Google maps API
- Built-in features such as authentication, session management, and ORM
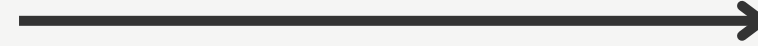
Frontend
HTML, CSS, JavaScript, Figma
- HTML will be used to create the basic structure of the webpages
- CSS will be used to style the pages
- JavaScript will be used to add interactive elements

Database
SQLite
- A lightweight, easy to use, and reliable database. It supports the necessary SQL commands to store and retrieve data.

Testing $\longrightarrow$

- White-box Testing (basis path testing)

- Black box (interface testing)

- Integration (hybrid)

- Regression Testing

Demo

Thank you

For your attention

Welcome to Qalb+

A platform where you can seamlessly find the nearest treatment provider, make sure that they match your insurance and book an appointment with them!

Login   Register