Healthcare management system

Project/Initiative

Month 2022

Version 0.1

Group 4

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1 Document Revisions

Date	Version Number	Document Changes
22/10/2022	0.1	Initial Draft

2 Approvals

Role	Name	Title	Signature	Date

3 Introduction

3.1 Project Summary

3.1.1 Objectives

- Solve the nuisance of having to browse through a lot of useless data for customers looking for a doctor.
- Search for a doctor precisely according to the customer's address and the need for a doctor.
- Optimize the arrangement of customers and doctors by implementing an updated schedule.
- Further enhance communication between doctors and clients through the chat box
- Ensure the accuracy of information by regularly updating the doctor's information with the administrator

3.1.2 Background

The "Internet +" is a new form of integration and development between the Internet and traditional industries, which can give full play to the optimization and integration role of the Internet in the allocation of production factors, deeply integrate the innovative achievements of the Internet into various areas of the economy and society, and enhance the innovative power and coverage of the real economy and public services.

“Internet + Doctors” can reduce time costs, improve information transparency and enhance communication between doctors and patients in an epidemic situation, and play an important role in scenarios where it is inconvenient for healthcare patients to gather and contact each other. Through the use of the Internet platform, the interests of all parties can be fully balanced, the advantages of “Internet + Doctors” can be brought into play, and the internal dynamics of healthcare can be stimulated to build a new type of intelligent community healthcare system.

3.1.2.1 Business Drivers

- The customers can find the doctor they want to see by using a specific index and can send messages directly to the doctor.
- Doctors can keep their appointments up to date to achieve a work-life balance and optimize their appointment times.
- The customer can determine his or her own schedule of appointments and appointments based on an updated schedule.
- The information on the website is simplified as much as possible to reduce the time spent by the customer so that they can find the information they are looking for directly.

3.2 Project Scope

3.2.1 In Scope Functionality

Currently available in the Ontario

- Registered users (user).
- Browse doctors' information.
- Talk directly to a doctor.
- Make an appointment.
- Modify user information (Admin).
- Modify location information (Admin).
- Modify option list information (Admin).
- Modify doctor information (Admin).
- Modify the appointment schedule (Admin).

3.2.2 Out of Scope Functionality

Currently unavailable outside of the Ontario

- Online video diagnosis.
- Online Psychological Counselling.

3.3 System Perspective

3.3.1 Assumptions

- Completion of the website by December.
- Summary of doctors and regional information completed by mid-November.

3.3.2 Constraints

- Some doctors may be reluctant to provide their contact details because of privacy protection measures.
- Some doctors may not be able to communicate and update schedules in real-time.

3.3.3 Risks

- May result in a compromise of client and doctor privacy.
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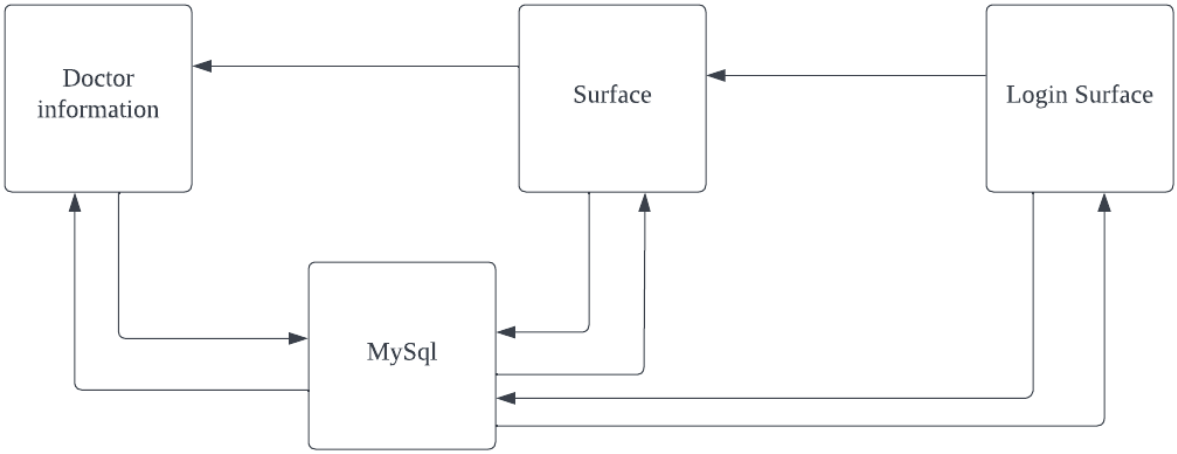
4 Business Process Overview

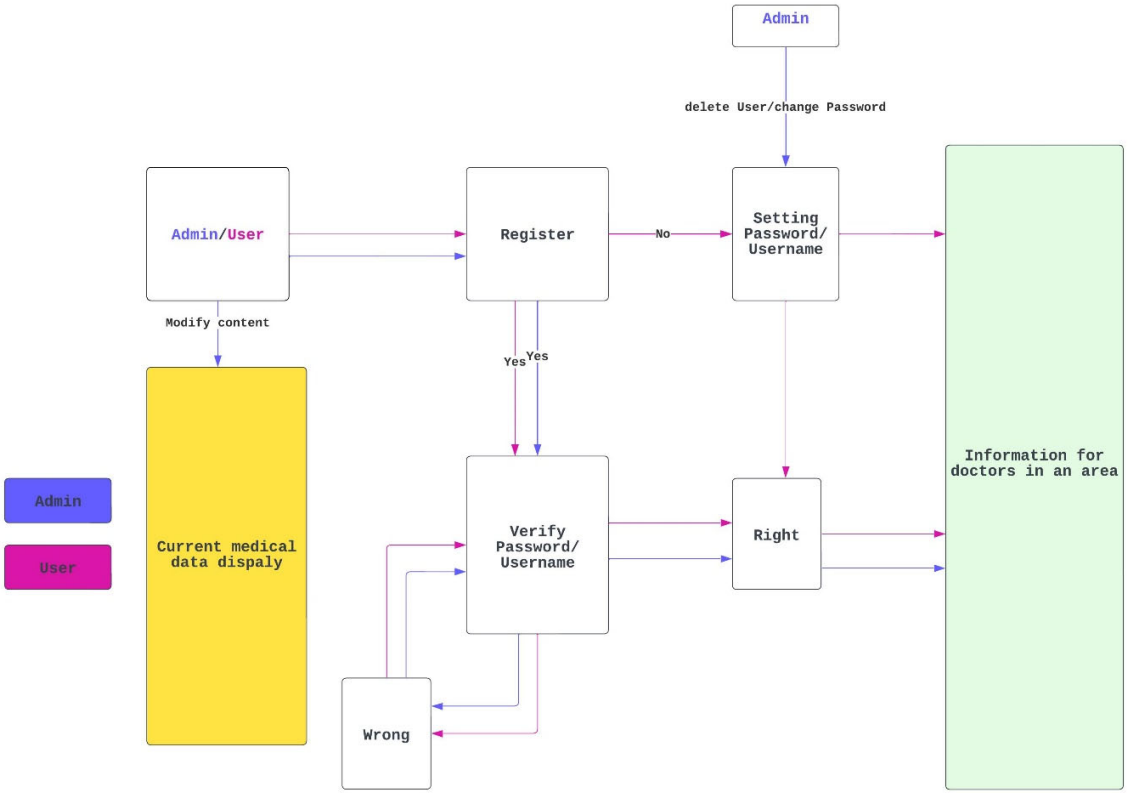
4.1 Current Business Process (As-Is)

1. Manual injection of Doctor specific data, geographical location information, and contact details into the MySQL database.
2. Add super admin to the management system
3. Build front-end HTML interfaces to enable front and back-end interaction



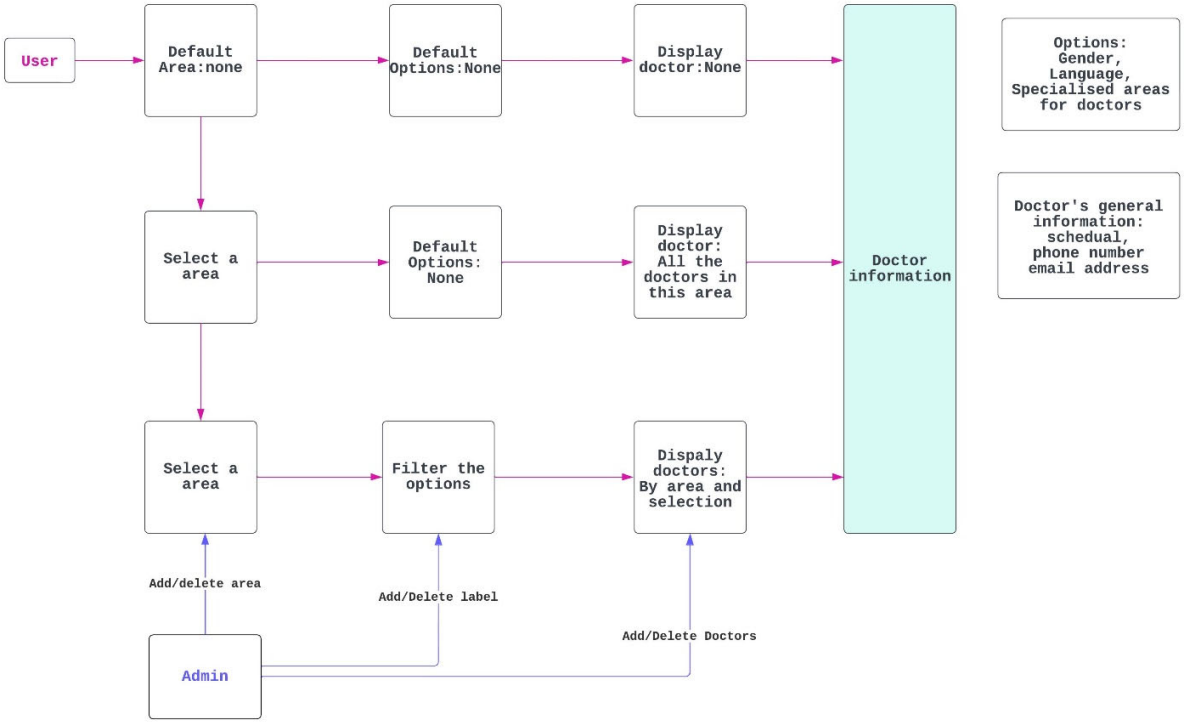
4.2 Proposed Business Process (To-Be)

4.2.1 Login Surface



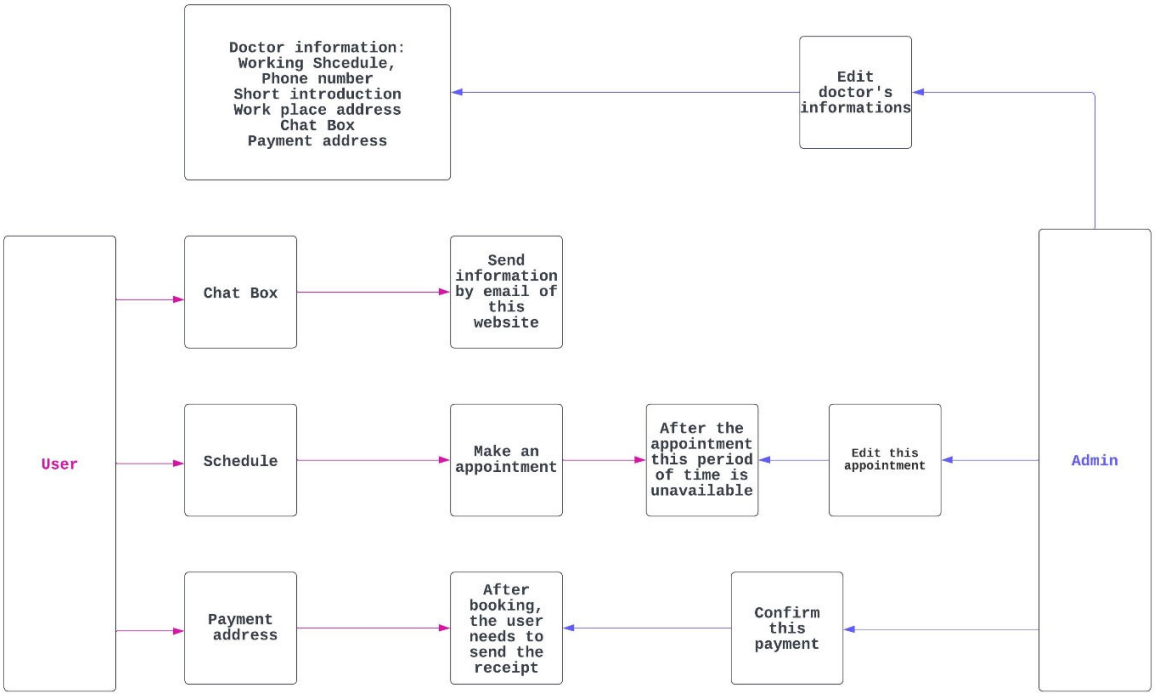
1. Users and administrators need to log in.
2. Administrators write in advance so they cannot register.
3. Users who are not registered need to register
4. Administrator and user with the wrong password need to register again.
5. On the registration screen there is a display area for current medical news.

4.2.2 Searching surface



6. The user enters the selection screen, the default region is none and the default option is none.
7. User selects the region and chooses all local doctors.
8. User selects options after selecting a region to further filter doctors.
9. Admin can change regions, and options, and add or remove doctors.

4.2.3 Doctor surface



1. Users can send messages to the doctor via the chat box, but the admin has no access to them.
2. The user can schedule appointments via schedule, and the admin can modify or cancel the user's appointment.
3. The user can pay via payment address and submit a receipt to the admin, who can confirm the payment.
4. The user can view the doctor's information on this screen and the admin can modify the doctor's information.

5 Business Requirements

The requirements in this document are prioritized as follows:

Value	Rating	Description
1	Critical	This requirement is critical to the success of the project. The project will not be possible without this requirement.
2	High	This requirement is a high priority, but the project can be implemented at a bare minimum without this requirement.
3	Medium	This requirement is somewhat important, as it provides some value but the project can proceed without it.
4	Low	This is a low-priority requirement, or a “nice to have” feature if time and cost allow it.
5	Future	This requirement is out of scope for this project and has been included here for a possible future release.

5.1 Functional Requirements

Req#	Priority	Description	Rationale	Use Case Reference	Impacted Stakeholders
General / Base Functionality					
5300-G01	1	The method administrators manipulate user data directly			Admin
5300-G02	1	The method users can communicate with their doctors via chat box	Real-time communication via email from the website		Admin
5300-G03	1	The method user can filter the doctors by different options			User
5300-G04	2	The doctor's way of operating the available schedule			Doctor
Security Requirements					

Req#	Priority	Description	Rationale	Use Case Reference	Impacted Stakeholders
FR-S-001	2	Need to collate doctors' data into a backup database to prevent loss			
Reporting Requirements					
5300-R	2	Need a monthly report about the progress			
Usability Requirements					
5300-U	1	Needs to be set in the CSS to make the interface fit the mainstream screen size on the market			
Audit Requirements					
5300-A	1	Changes to the doctor's details need to be checked with the doctor himself			

5.2 Non-Functional Requirements

ID	Requirement
5300-NFR1	Requirement to ensure thread safety
5300-NFR2	Requirement to ensure accurate data for doctors