Pharmacy Service Web Application

Project Vision Document

Version 1.1

October 07, 2023

Revision History

Revision	Date	Author	Reviewed By	Summary of Changes
1.0	September 19, 2023	Hiu Wai Lau, Yang Hai		Initial document
1.1	October 06,2023	Chloe Zeng		Updated Assumption

Document Approval List

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Table of Contents

1 Introduction

With the increasing needs for healthcare accessibility and convenience, the Pharmacy Service Web Application aims to revolutionize the way individuals interact with their local pharmacies. This innovative platform seeks to bridge the gap between patients and pharmacies by providing a streamlined and user-friendly digital solution for scheduling appointments, managing prescriptions, accessing nearest pharmacies network, and even aiding pharmacies in forecasting stock and staffing requirements. By harnessing data analytics and advanced algorithms, the platform not only empowers patients but also assists pharmacies in optimizing their operations, ensuring adequate stock levels, and efficiently allocating staff resources to meet the evolving needs of their communities.

1.1 Purpose

The purpose of this document is to collect, analyze, and define high-level needs and features of the Pharmacy Service Web Application. It focuses on the capabilities needed by the stakeholders, and the target users, and why these needs exist. The details of how the Pharmacy Service Web Application fulfills these needs are detailed in the use-case and supplementary specifications.

1.2 Scope

1.2.1 In Scope

This Project Vision document applies to the Pharmacy Service Web Application (PSWA), which will be developed by a development team formed by George Brown College students. The (PSWA) will be web-based. The (PSWA) allows users to schedule and manage appointments, manage prescriptions, search for nearby pharmacy networks, and aid pharmacies in forecasting stock and staffing requirements. The system supports user access (PSWA) websites through the internet.

1.2.2 Out of Scope
    a. The internal operation and inventory system of pharmacists.
    b. Direct health consultation services.

1.3 Definitions, Acronyms, and Abbreviations

PSWA – Pharmacy Service Web Application

1.4 References

Reference File Name	Version	Description

2   Positioning

2.1   Business Opportunity

In response to pressing challenges within the healthcare sector and leveraging emerging digital trends, our organization has identified a compelling business opportunity:

1. Improved customer experience: By enabling patients to book appointments conveniently, we enhance the overall customer experience, reducing wait times and increasing patient satisfaction.

2. Optimized resources management: The platform will provide resources usage forecasting features, ensuring pharmacies have the right vaccines and medicines in stock to meet patient demand effectively.

3. Efficient staff allocation: During vaccine peak seasons and other high-demand periods, the platform will provide tools for pharmacies to optimize staff allocation, ensuring adequate coverage and service quality.

4. Enhanced visibility: The platform will feature a robust pharmacy directory, making it easier for patients to discover nearby pharmacies and access essential healthcare resources.

5. Business growth and sustainability: Pharmacies using this platform will have the opportunity to expand their customer base, increase revenue, and build lasting customer relationships, contributing to long-term business growth and sustainability.

2.2   Problem Statement

The Problem of	lack of digital solutions for appointment booking, inventory management, and staffing optimization
affects	pharmacy owner/ manager
the impact of which is	inefficient operations and missed opportunities
a successful solution would be	versatile, adaptable and user-friendly, making it easily to be used by different pharmacies and other stakeholders. The system would support schedule and manage appointments, manage pharmacies available services, and aid pharmacies in forecasting stock and staffing requirements. The user would be able to access the system through the internet (access system website and/or mobile web browser).

Table 1 Problem Statement of Pharmacy owner/ manager/ pharmactist

The Problem of	lack of convenient appointment booking method and prescription management
affects	pharmacy client (patient)
the impact of which is	increases waiting time, causes stress, raises health risks
a successful solution would be	versatile, adaptable and user-friendly, making it easily to be used by different pharmacies and other stakeholders. The system would support schedule and manage appointments, manage prescriptions, search for nearby pharmacy networks, review booking history, and support setting up of reminders. The user would be able to access the system through the internet (access system website and/or mobile web browser).

Table 2 Problem Statement of Client (Patient)

2.3   Product Position Statement

For	pharmacy owner/ manager
Who	experiencing inefficient operations and missed opportunities due to lack of digital solution
The Pharmacy Service Web Application	is a software product
That	provide schedule and manage appointments, manage pharmacies available services, and aid pharmacies in forecasting stock and staffing requirements
Unlike	other chained pharmacies only provide scheduling appointments function for their members
Our product	open to all pharmacies and all people.

Table 3 Product Position Statement for Pharmacy owner/ manager

For	Client (Patient)
Who	experiencing lack of convenient appointment booking method and prescription management
The Pharmacy Service Web Application	is a software product
That	provide schedule and manage appointments, manage prescriptions, search for nearby pharmacy networks, review booking history, and support setting up of reminders.
Unlike	other chained pharmacies only provide scheduling appointments function for their members
Our product	open to all pharmacies and all people.

Table 4 Product Position Statement for Client (Patient)

2.4 Product SWOT Analyst

2.4.1 Strengths:

i. Enhanced Customer Experience: The platform improves patient satisfaction by enabling convenient appointment booking, reducing wait times, and offering access to essential health information.

ii. Efficient Inventory Management: It helps pharmacies optimize their stock levels, reducing the risk of overstocking or stockouts, leading to cost savings and improved revenue.

iii. Staffing Optimization: During peak seasons, the platform assists in efficient staff allocation, ensuring pharmacies have the necessary workforce to meet demand while controlling labor costs.

iv. Increased Visibility: Pharmacies gain greater visibility among potential customers, attracting new clients and strengthening their presence in the community.

v. Data-Driven Insights: The platform provides valuable data analytics, helping pharmacies make informed decisions regarding inventory, staffing, and customer preferences.

2.4.2 Weaknesses:

i. Adoption Challenges: Pharmacy owners and staff may face a learning curve in adopting and fully utilizing the platform, potentially leading to initial resistance.

ii. Technical Dependencies: The platform relies on technology infrastructure, making it susceptible to technical issues, outages, or cybersecurity threats.

iii. Data Privacy Concerns: Handling patient data and health information requires strict adherence to privacy regulations, posing potential compliance challenges.

2.4.3 Opportunities:

i. Market Expansion: The platform can expand its services to include additional pharmacies and healthcare providers, increasing its reach and impact.

ii. Diversification: There's an opportunity to diversify the platform's offerings, such as integrating telehealth services or partnerships with healthcare professionals.

iii. Healthcare Trends: The growing emphasis on digital healthcare solutions and telemedicine presents an opportunity for the platform to align with broader industry trends.

2.4.4 Threats:

i. Competitive Landscape: The market for digital healthcare solutions is competitive, with the emergence of similar platforms and established players entering the field.

ii. Regulatory Changes: Evolving healthcare regulations and privacy laws may require ongoing compliance efforts and potentially impact the platform's operations.

iii. Cybersecurity Risks: As a digital platform handling sensitive health information, the platform faces cybersecurity threats and must invest in robust security measures.

iv. User Acceptance: The success of the platform relies on user adoption and engagement, making it vulnerable to the risk of not meeting user expectations.

v. Economic Factors: Economic downturns or shifts in healthcare spending could impact the platform's profitability and growth potential.

3   Stakeholder and User Descriptions

3.1   Stakeholder Summary

Stakeholder Name	Represents	Role
Hiu Wai Lau	Project planning, allocating and managing project resources, coordinating project activities and monitoring progress.	Project Manager
Diego Fuentes	Leading the technical team, making decisions on technical solutions, and responsible for quality assurance.	Technical Manager
Yang Hai	Doing market research, identifying target customers, ensuring the product features meet the market demands.	Market Analyst
Chloe Zeng	Gathering and analyzing system requirements, designing the system, and executing system test plans.	System Analyst

Table 5 Stakeholder Summary

3.2   User Summary

User Name	Description	Responsibilities	Stakeholder
Pharmacy Manager/Owner	End user of the system	Log in/out system, Access client information,Generate reports, Add new vaccine to the system, Modify appointments, Add new services to the system, Send appointment reminders, Vaccine inventory management, View reviews and feedback, Shut down the system, Start up the system	
Pharmacist	End user of the system	Log in/out system, Access client information,Generate reports, Modify appointments, Send appointment reminders, Vaccine inventory management, View reviews and feedback	
Pharmacy staff	End user of the system	Log in/out system, Access client information,Generate reports, Modify appointments, Send appointment reminders, Vaccine inventory management, View reviews and feedback	
Patient	End user of the system	N/A	
System Admin	Admin of the system	Log in/out system, Shut down the system, Start up the system	

Table 6 User Summary

4   Stakeholder Requirements

ID	Requirement	Stakeholder

Table 7 Stakeholder Requirements

5   System Features

ID	Feature	Stakeholder Requirement ID
1	Log in/out system	
2	Check vaccine appointment availability	
3	Make vaccine appointment	
4	Modify vaccine appointment	
5	Cancel vaccine appointment	
6	Confirm vaccine appointment	
7	View vaccine details	
8	View vaccine appointment history	
9	Order prescription medications	
10	View prescription details	
11	Cancel prescription order	
12	Explore pharmacy service options	
13	Access client information	
14	Generate reports	
15	Add new vaccine to the system	
16	Modify appointments	
17	Add new services to the system	
18	Send appointment reminders	
19	Offer visual map view of pharmacies	
20	Set appointment reminder preference	
21	Cancel prescription order delivery request	
22	Vaccine inventory management	
23	View reviews and feedback	
24	Shut down the system	
25	Start up the system	

Table 8 System Features

6   Assumptions

1. Pharmacies' Integrity and Professionalism. It is assumed that pharmacies engaging with our application will operate their businesses with honesty, integrity, and professionalism. We expect them to provide accurate and reliable information, adhere to ethical business practices, and deliver high-quality services to patients through our booking system. This assumption is foundational to the successful implementation and functionality of the application, ensuring a positive and trustworthy experience for all users.
2. Security. The user data can be stored securely to meet the law and the government's regulation.
3. Accuracy of information. The vaccine details posted on the website are accurate, including but not limited vaccine name, brand, manufacturer name, lot number.
4. Real-time data update. The availability of vaccines on the website is real-time updated and the appointment slot information is accurate to make sure the user can get the vaccine or access the services at the time of their appointment.
5. Verify information with health authorities. Pharmacies have their own system to verify the users health card information.
6. User access environment. The users can be connected to the Internet to access the functionalities of the system, and users have proper devices and the basic ability to use the system.
7. Stability of the system. The application is stable enough to provide reliable service to users. The system is well monitored and can be fixed quickly even when some errors happen to ensure that users have access to stable services at all times.

7   Constraints

1. Security constraint. The user data must be protected according to the regulations, and the authentication of the user's information is a must to access all services.
2. Usability constraint. The system is user friendly so that all groups of users can use the system easily.
3. Infrastructure constraint. The application is deployed on a reliable server to ensure the system availability and performance.
4. Budget constraint. Consider all possible costs and allocate funds for development, ongoing maintenance and other unexpected expenses.
5. Time constraint. Take every step in the life cycle of the development into account, and make a reasonable and realistic timeline in order to deliver the product on time.