CSE306: Software Engineering and Information System Design Lab

PREPARE SOFTWARE REQUIREMENT SPECIFICATION (SRS) DOCUMENT

by

Rafiu Anjir
ID: 2104010202271

Fatema tuz zohra Hira
ID: 2104010202270

Sanjida Mahmud Muntaha
ID: 2104010202279

Department of Computer Science and Engineering
Premier University
Chattogram-4000, Bangladesh

23 December, 2023

CSE306: Software Engineering and Information System Design Lab

PREPARE SOFTWARE REQUIREMENT SPECIFICATION (SRS) DOCUMENT

Company Name: T-rex

by

Rafiu Anjir
ID: 2104010202271

Fatema tuz zohra Hira
ID: 2104010202270

Sanjida Mahmud Muntaha
ID: 2104010202279

A report submitted in partial fulfillment of the requirements for the assignment of CSE306: Software Engineering and Information System Design Lab

Instructor

MD Tamim Hossain
Lecturer
Department of Computer Science and Engineering
Premier University
Chattogram-4000

Signature

Abstract

Nowadays advancements in technology have brought about transformative changes in the healthcare landscape, notably in the way pharmaceutical services are accessed and delivered. This project focuses on the multifaceted challenges faced by individuals in accessing essential pharmaceutical services without the convenience of online platforms.Healthcare products can now be ordered online while sitting at home without any difficulty. By delivering essential drugs to people's doorsteps, online pharmacy app development such as PharmEasy has made people's lives even more convenient.This project embarks on an exploration of the dynamic landscape of online pharmacies, delving into theintegration of cutting-edge technology, the evolving patient experience, and the broader implications for healthcare accessibility. our primary focus will be on understanding the challenges users face, exploring the intricacies of regulatory frameworks, and ultimately crafting a comprehensive solution that enhances accessibility, reliability, and overall efficiency in the realm of online pharmacies.

Contents

List of Figures

List of Tables

Chapter 1

Introduction

1.1 Problem Statement

Some medicines which are often not available in the nearest pharmacy which can be found here.There are old people in many families whose children are separated from them for work, they can't buy medicine on time due to illness or pharmacy being far away, this app will be very useful for them, if they order their necessary medicine from here, they will get it on time. There are many such people who may live in villages or pharmacies are far away so these apps are very important.our app can be cost-effective for both patients and healthcare providers. Without these options, individuals may face higher costs associated with travel, time off work, and other expenses related to in-person healthcare visits.It also provides easy communication between user and Admin.Sometimes due to natural calamities, it is not possible to go to the dispensary in person, so by placing an order on this app, the customer can collect his medicine within a certain period of time

1.2 Background

Since the beginning of this century, the Internet world has been expanding, and many important tasks of our daily life have been transformed through the Internet.One of the many services that have expanded with the help of the Internet is healthcare, such as medical services and doctor's consultations.There are many people who are not so educated, advanced they may have problem to use this app.Sometimes there are some people who don't fully trust the online pharmacy which makes it difficult for them to buy from this app.

1.3 Benefits of Application

Benefits of this Application are:

- Early access to sales.
- Free doctor teleconsultation.
- No extra fee for orders.
- This can save time and effort compared to visiting a physical pharmacy
- This can be especially beneficial for individuals who may have difficulty visiting a physical pharmacy.
- Teleconsultation Services
- Being a place of people Trust.
- Easy online payment

1.4 Purpose

- making healthcare accessible and affordable to all.
- It allows pharmacists to serve patients who are physically distant from them, allows for remote order processing, and opens up new channels for patient interaction through telehealth services.
- Teleconsultation Services

1.5 Feature of Application

Serial No	User	Admin
1	Simple registration	Registration
2	Search medicine	Dashboard
3	Upload Prescription	Monitization
4	Add to card	Marketing tools
5	Order Tracking	Data security and safety
6	Return policy	Manage notification
7	Loyalty point	Manage users and aggregations
8	Payment gateway	Analytics

Table 1.1: Table

Chapter 2

Feasibility Study

2.1 Technical Feasibility

We will use the Agile model to build this project.

- This model helps to ensure that development teams complete projects on time and within budget.
- Agile development is more flexible than other project management methodologies. Development teams can make changes on the fly more easily.
- Agile development helps to improve communication between the development team and the product owner. Because of this, there is a greater focus on collaboration and feedback.
- Agile development produces less documentation than Scrum.
- Agile development can help to reduce the risks associated with complex projects.
- Agile is chosen for projects due to its iterative and flexible nature.

In this project we will use Java, CSS, HTML as font-end development language and Python, Laravel for back-end development.

2.2 Market Feasibility

PharmEasy.com a proposed start-up app offering medication and diagnostic ordering, doctor consultations, and other healthcare services, holds significant market potential in Bangladesh. This analysis explores the feasibility of PharmEasy.com based on market demand, competition, regulatory landscape, and financial projections. This market feasibility analysis aims to assess the viability of introducing PharmEasy.com in the Bangladeshi market.Bangladesh has a growing population with an increasing focus on healthcare.Existing online pharmacies and diagnostic service providers dominate the market. However, PharmEasy software has unique value proposition - cashback, free delivery, early access to sales, and free consultations - differentiates it from competitors. Building brand trust and loyalty will be crucial for PharmEasy to compete effectively.Effective marketing campaigns and partnerships with healthcare professionals will be crucial. Partnering with reputable pharmacies and providing competitive pricing will be key.Implementing robust data security measures will be essential for building user trust. Expanding service offerings and incorporating new technologies will be crucial for long-term success. The online pharmacy industry is a significant contributor to the country's economy.There is a rising demand for convenient and accessible healthcare services.PharmEasy aims to differentiate itself through a wide product range and convenient services. Bangladesh's pharmaceutical market is expected to reach USD 7.7 billion by 2025, presenting a significant opportunity for online platforms. Rising internet and smartphone usage, particularly in urban areas like Chattogram, create a favorable environment for app-based healthcare solutions. While online medicine buying is still in its nascent stages, awareness and adoption are growing due to convenience and price benefits. PharmEasy has a strong market potential due to its unique features and addressable market needs. However, careful planning, strategic partnerships, and effective marketing are necessary to overcome challenges and achieve long-term success. By addressing these factors, PharmEasy can establish itself as a leading player in the Bangladeshi online pharmacy market.

2.3 Financial feasibility

The cost of developing a PharmEacy software depends on the complexity of the project.The total budget of developing a PharmEasy app depends on various factors. It relies on the choice of basic and advanced features, hourly charges paid to the developers, the kind of tech stack used, the level of customization, third-party API integration, and the time allocated for front-end and back-end development. PharmEasy.com has the potential

to be a successful startup app in Bangladesh, offering valuable features like cashback, free delivery, early access to sales, and free doctor consultations. However, it's crucial to analyze its financial feasibility before investing.

Cost estimation:

- **Software Development:** This is the primary expense, including app development, backend infrastructure, security, and maintenance. A basic MVP (minimum viable product) could cost around $20,000-$50,000, while a feature-rich app with scalability can reach $100,000 or more.

    - **Marketing and User Acquisition:** Attracting users is essential. Expect to spend $5,000-$10,000 per month on digital marketing, influencer partnerships, and promotional campaigns.

    - **Operational Costs:** This includes salaries, logistics, customer support, payment processing fees, and other operational expenses. Allocate $5,000-$10,000 per month initially, adjusting based on growth.

      Delivery Costs: Free delivery with minimum order value will incur costs. Factor in standard delivery charges for heavier orders and consider partnerships with delivery providers for better rates.

Chapter 3

UML Diagram

Filename: chapters/background.tex

Background chapter. Add sections as necessary.

Chapter 4

Proposed System

Filename: chapters/methodology.tex

In this chapter, we discuss the proposed system Of Testing Design

Test Cases: Module- Login

Test Cases: Module- User Registration

Test Cases: Module- Add to cart

Test Cases: Module- Payment

Test Cases: Module- Search and Filter

Test Cases: Module- Prescription Upload

Test Cases: Module- Review and Rating

Test Cases: Module- Logout

Project Name	PharmEasy
Module Name	Login
Created By	Muntaha
Reference Document	N/A
Date of Creation	1-02-2024
Date of review	3-02-2024

Test case ID	Test scenario	Test case	Pre-condition	Test steps	Test Data	Expected result	Post condi-tion
01	Verify the login Gmail and password	Enter valid gmail and valid password	Need a valid gmail and password	1.Enter Gmail 2.Enter Password 3.Click Login	<valid gmail> <valid password>	Successful login	User should able to see the home page
02	Verify the Gmail	Enter valid gmail and invalid password	Need a valid gmail	1.Enter Gmail 2.Enter Password 3.Click Login	<valid gmail> <invalid password>	Password don't match	Error message "invalid gmail or password"
03	Verify the password	Enter invalid gmail and valid password	Need a valid gmail	1.Enter Gmail 2.Enter Password 3.Click Login	<invalid gmail> <valid password>	Gmail don't match	Error message "invalid gmail or password"
04	Verify the login Gmail and password	Enter invalid gmail and invalid password	Need a valid gmail	1.Enter Gmail 2.Enter Password 3.Click Login	<invalid gmail> <invalid password>	Gmail and Password don't match	Error message "invalid gmail or password"

Figure 4.1: Module- login Test case.

Project Name	PharmEasy
Module Name	User Registration
Created By	Muntaha
Reference Document	N/A
Date of Creation	1-02-2024
Date of review	3-02-2024

Test case ID	Test scenario	Test case	Pre-condition	Test steps	Test Data	Expected result	Post condi-tion
01	Verify the registration of Gmail	Enter valid gmail and valid password	Need a valid gmail and password to registration	1.Enter Gmail 2.Enter Password 3.Click registration button	<valid gmail> <strong password>	Successful Resister	Login form is shown
02	Verify the registration of Gmail	Enter valid gmail and invalid password	Need a valid gmail to registration	1.Enter Gmail 2.Enter Password 3.registration button	<valid gmail> <not strong password>	Not strong password	Error message "not strong password"
04	Verify the registration of Gmail	Enter invalid gmail and invalid password	Need a strong password to registration	1.Enter Gmail 2.Enter Password 3.registration button	<invalid gmail> <not strong password>	Wrong gmail, Not strong password	Error message "wrong gmail and not strong password"

Figure 4.2: Module- User Registration Test case.

Project Name	PharmEasy
Module Name	Add to cart
Created By	Muntaha
Reference By	N/A
Date of Creation	1-02-2024
Date of review	3-02-2024

Test case ID	Test scenario	Test case	Pre-condition	Test steps	Test Data	Expected result	Post condition
01	User can browse products	Verify the ability to browse products	User is logged in	1. Navigate to the product section	<->	product listing page is displayed	user able to see the product
02	Adding a product to the cart	Verify the user can add a product to the cart	Product is available	Select a product	<product ID>	Product is added to the cart	Confirmation message or visual cue indicates successful add
03	Viewing the shopping cart	Verify the user can view the shopping cart	Cart is not empty	1. Navigate to the shopping cart	<->	Shopping cart page is displayed with selected items	Cart contents are displayed accurately
04	Updating the quantity of an item	Verify the user can update the quantity	Cart has items	1. Navigate to the shopping cart	<product ID> <new quantity>	Cart is updated with the new quantity	Quantity is updated correctly in the cart. Confirmation message or visual cue indicates successful update.
05	Removing an item from the cart	Verify the user can remove an item	Cart has items	1. Navigate to the shopping cart	<product ID>	Item is removed from the car	All items are removed from the cart.Confirmation message or visual cue indicates successful clearing.

Figure 4.3: Module- Add to cart Test case.

Project Name	PharmEasy
Module Name	Payment
Created By	Muntaha
Reference Document	N/A
Date of Creation	1-02-2024
Date of review	3-02-2024

Test case ID	Test scenario	Test case	Pre-condition	Test steps	Test Data	Expected result	Post condi-tion
01	Verify payment module	Amount<=wallet money	Need to be login	1.Enter amount 3.Enter next button	<Amount>	Successfully Payment	Receive successful message
02	Verify payment module	Amount>wallet money	Need to be login	1.Enter amount 3.Enter next button	<Amount>	Unsuccessfully Payment	Receive Unsuccessful message
03	Verify payment module	Amount<0	Need to be login	1.Enter amount 3.Enter next button	<Amount>	Unsuccessfully Payment	Receive Unsuccessful message

Figure 4.4: Module- Payment Test case.

Project Name	*PharmEasy*
Module Name	Search and Filter Module
Created By	Fatema tuz zohora hira
Date of Creation	2.02.24
Date of Review	3.02.24

TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/ FAIL)
TC_001	Search for a specific medicine	Verify search functionality	User is logged in	1.Enter the medicine name in the search bar and press enter	Medicine name: "NAPA"	The system should display a list of medicines matching the search criteria	No change in the system state	–	–
TC_002	Filter medicines by category	Verify filter functionality	User is logged in	1. Navigate to the "Categories" section 2. Select a	Category: "Pain Relief"	The system should display a list of medicines belonging to	The system should display a list of medicines belonging to	-	-

Figure 4.5: Module- Search and Filter Test case.

Project Name	*PharmEasy*
Module Name	Prescription upload
Created By	Fatema tuz zohora hira
Date of Creation	2.02.24
Date of Review	3.02.24

TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/ FAIL)
TC_001	User uploads a valid prescription	Verify that the user is logged in	1. Navigate to the prescription upload section	1.valid prescription file	Prescription is successfully uploaded	Updated prescription list in the user's account	Updated prescription list in the user's account	_	_
TC_002	User tries to upload a prescription without logging in	Verify that the user is not logged in	1. Navigate to the prescription upload section	Valid prescription file	Display an error message indicating the need to log in	User is prompted to log in before uploading	User is prompted to log in before uploading	-	-

Figure 4.6: Module- Prescription Upload Test case.

Project Name	*PharmEasy*
Module Name	Prescription upload
Created By	Fatema tuz zohora hira
Date of Creation	2.02.24
Date of Review	3.02.24

TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/ FAIL)
TC_001	User uploads a valid prescription	Verify that the user is logged in	1. Navigate to the prescription upload section	1.valid prescription file	Prescription is successfully uploaded	Updated prescription list in the user's account	Updated prescription list in the user's account	_	_
TC_002	User tries to upload a prescription without logging in	Verify that the user is not logged in	1. Navigate to the prescription upload section	Valid prescription file	Display an error message indicating the need to log in	User is prompted to log in before uploading	User is prompted to log in before uploading	-	-

Figure 4.7: Module- Review and Rating Test case.

Project Name	*PharmEasy*
Module Name	Prescription upload
Created By	Fatema tuz zohora hira
Date of Creation	2.02.24
Date of Review	3.02.24

TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDITION	TEST STEPS	TEST DATA	EXPECTED RESULT	POST CONDITION	ACTUAL RESULT	STATUS (PASS/ FAIL)
TC_001	User uploads a valid prescription	Verify that the user is logged in	1. Navigate to the prescription upload section	1.valid prescription file	Prescription is successfully uploaded	Updated prescription list in the user's account	Updated prescription list in the user's account	_	_
TC_002	User tries to upload a prescription without logging in	Verify that the user is not logged in	1. Navigate to the prescription upload section	Valid prescription file	Display an error message indicating the need to log in	User is prompted to log in before uploading	User is prompted to log in before uploading	-	-

Figure 4.8: Module- Logout Test case.

Chapter 5

Experimental Results

Filename: chapters/result_discussion.tex

In this chapter, we are going to evaluate our proposed method ...

Chapter 6

Conclusions

Filename: chapters/conclusion.tex

6.1 Conclusions

6.2 Future Prospects of Our Work

Chapter 7

UML Diagram

7.1 Use Case Diagram

In this chapter discuss the decision of the proponents whether the research proposal turned out to be feasible or not. This study contains the information needed for deciding whether to proceed with creating the business. State the reasons why the proposed business could be considered feasible or not.

References