
SOFTWARE REQUIREMENTS SPECIFICATION

for

Online Medicine System

Version 1.0

Prepared by

Group no. 3

1. EBIN J (M200284CS)
2. KUNDAN KUMAR (M200285CS)
3. RUNAD KHAMKAR (M200416CS)
4. NAGATEJA BANOTHU (M200288CS)

Course : CS6103D Software Systems Lab

Submission date: 18.12.2020

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1 Introduction

This project is used for medical shop union and the customers which required regular or occasional medicines. The site maintain information of medical shops such as medical shop registration id and owner's details.

Initially to use the Online Medical System, customer have to register to the site with customer's details. After registering to the system customer have to upload the document of the prescription provided by the known doctor. The prescription document then pass to all nearby shops. The nearby medicine shop then check the validity of the prescription by verifying the doctor's name, date, and signature, or seal. If the prescription is valid each shop update the available number of medicines. The system will then approve the shops which can provide maximum listed medicines to deliver the items. The customer can reuse it's account with username and password.

1.1 Purpose

Online Medicine System is an online web application to provide complete solutions for Vendors (medical shop owners) and customers. Owners can set up their online medical shops in the page by creating an account and add the medicines available in the shop to be visible to customers. They can also modify the medicines list in their shops. Customers can purchase medicines from nearest shops through their account. The processing of orders placed by the customers is administrated by an admin through his account.

1.2 Intended Audience and Reading Suggestions

This SRS is for developers, project managers, users and testers. Further the discussion will provide all the internal, external, functional and also non-functional information about "Online Medicine System".

1.3 Project Scope

- "Online Medicine System" creates a platform for Online Medical shops as well as Customer to register with system and Customer can upload the prescription given by the doctor and shop update the available number of medicines then System Approve the shops which can provide maximum listed medicines to deliver the items.

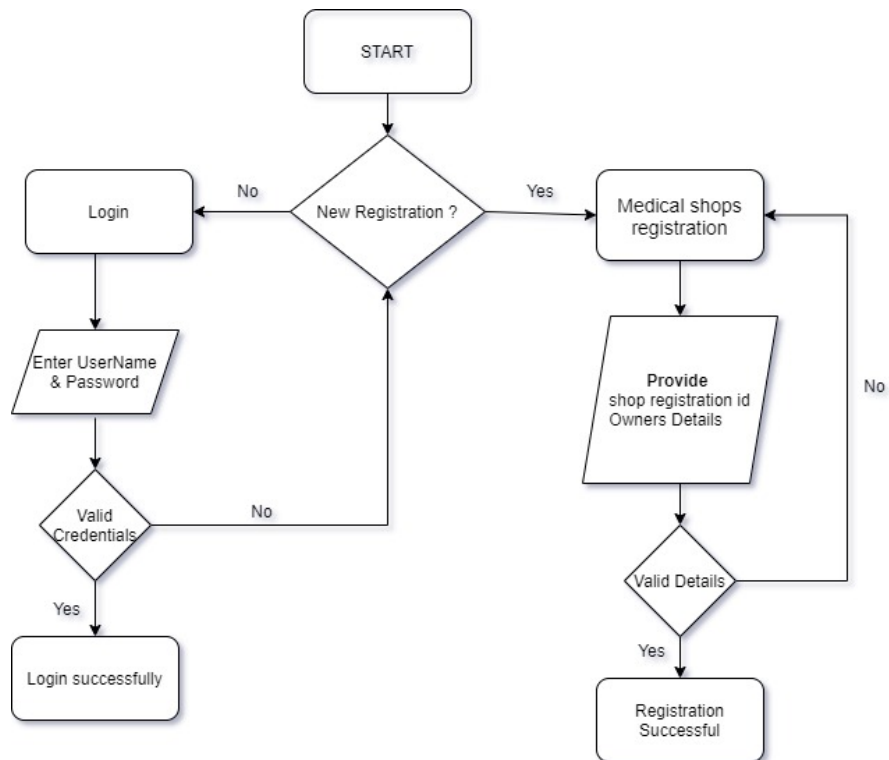


Figure 1.1: Medical Shop Registration

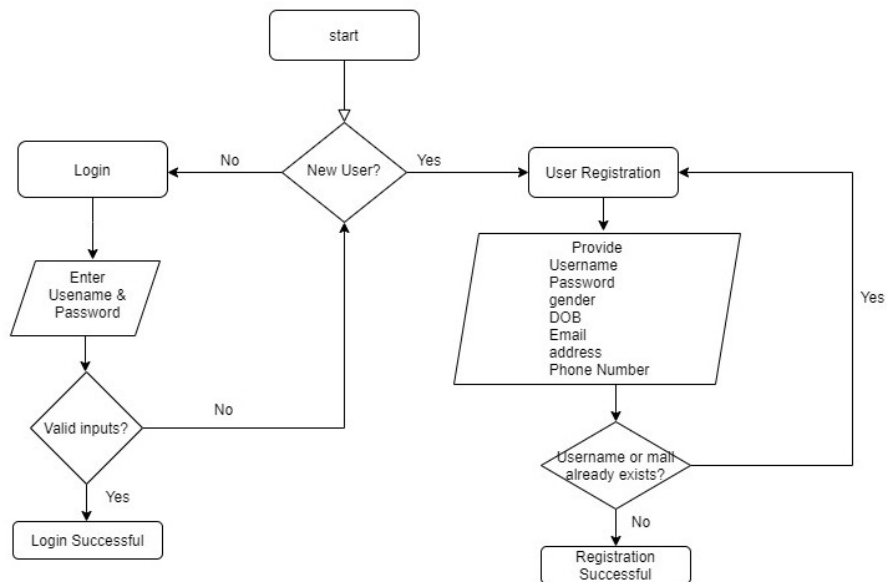


Figure 1.2: Customer Registration

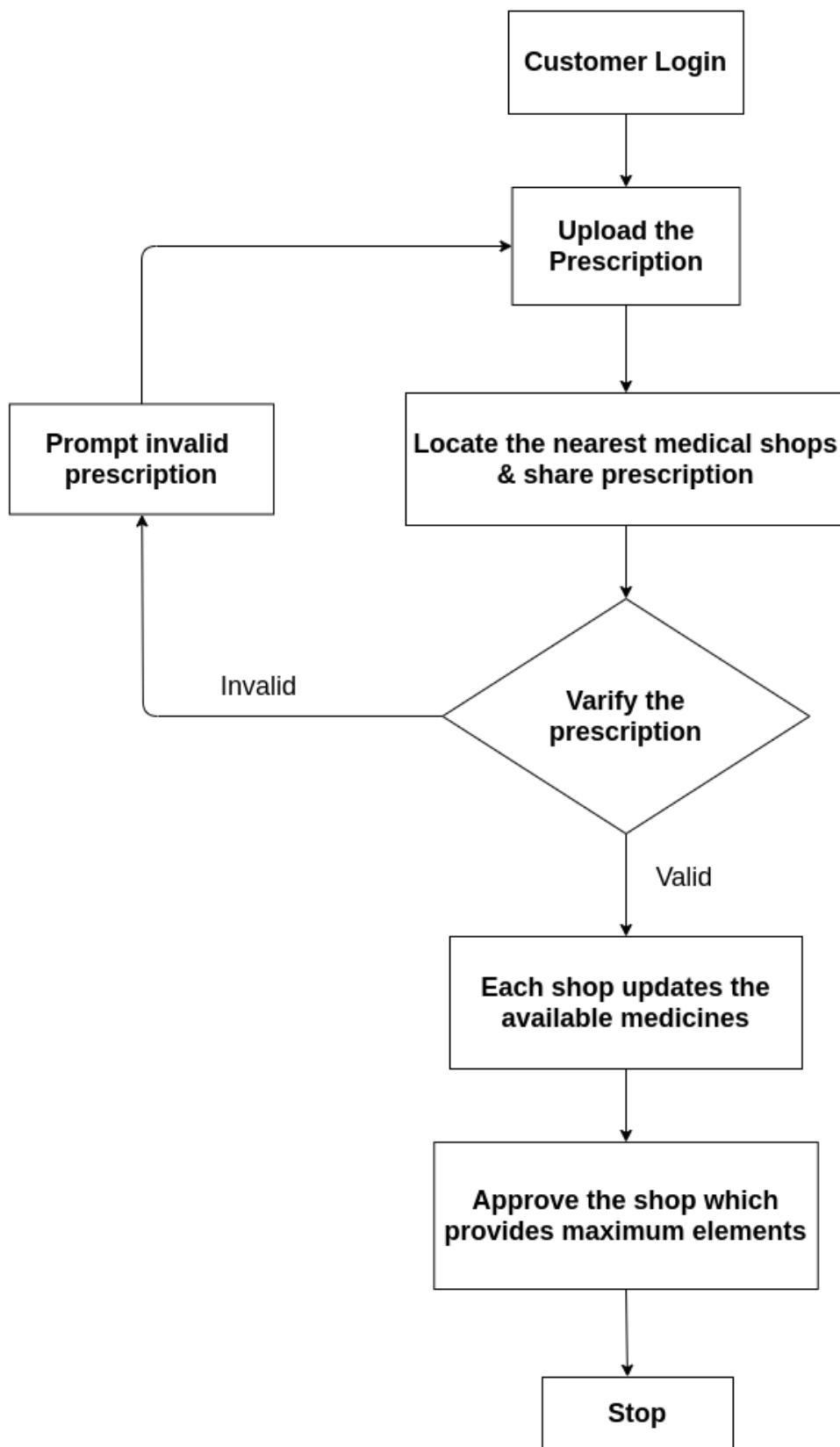


Figure 1.3: Work-flow

- After registering on the website, a vendor/shop set up an online shop by adding items to it. He/she can modify the current medicines as well as add new medicines to the page. These medicines will be available to all customers for purchase
- The customers can register to the website and purchase medicines from nearby shops available in the site.
- The order processing is maintained by the Administrator of the website. The admin passes the prescription document to nearby medical shops. The medical shops then verify the document. If the prescription is valid each shop update the available number of medicines. The system will then approve the shops which can provide maximum listed medicines to deliver the items.

1.4 Definitions, Acronyms and Abbreviations

OMS:Online Medicine System

SRS:Software Requirement Specification

EHR:Electronic Health Record

hipaa:Health Insurance Portability and Accountability Act

FHIR:Fast Healthcare Interoperability Resource

GUI:Graphical User Interface

MLA:Modern Language Association

HTTP:Hypertext Transfer Protocol

1.5 Document Conventions

This document follows MLA conventions. Bold-faced text emphasize section and sub-section headings.

1.6 References and Acknowledgments

www.google.com

www.overleaf.com

www.latex.com

2 Overall Description

2.1 Product Overview

The aim of this project is to develop a web application for buying medicine online. Such an application can benefit people in multiple ways. First, it will become easier to buy medicine by avoiding visiting the medical shops altogether. Second, it is common knowledge that some medicines are available only in specific medical shops located around certain hospitals. As will be seen further in this section, our web app provides options to forward the medicine request to all the registered medical shops. This way, if the requested medicine is available with any of the registered medical shops, it can be bought. This is a huge advantage over having to physically visiting multiple medical shops and enquiring for the availability of the required medicine. Third, and especially applicable to the pandemic-affected world is the fact that a web app would allow people to socially distance themselves from others while buying medicines – be it senior citizens who are advised to not leave their house or COVID-19-affected patients. A web app has an added advantage over a smartphone app because it is platform-agnostic.

2.2 Product Functionality

- User registration – a user can register by providing details like user name, password, gender, date of birth, email id, address, and phone number.
- Medical shops registration – medical shops can register on the site using the shop registration id and owner details
- Registration approval - Approve the registration based on the shop registration details and ownership details.
- Prescription upload – users upload scanned copy of prescription.
- Share uploaded prescription – nearby medical stores are identified based on user location and uploaded prescriptions are shared with them.
- Display available stock – medical shops return the stock available for the requested medicine(s).
- Select optimal shop – select the store with maximum number of items from the prescription and minimum distance from the user

2.3 Design and Implementation Constraints

Because the main functionality of the application is buying medicines online, it is necessary that the web app implementation takes minimal time to load and that it is highly responsive. A delayed response might turn out to be the difference between life and death for the user making the request. One design constraint is that it is logistically infeasible to deliver medicines to a user from a shop that is too far away from him/her. So it is necessary to limit the search radius of shops to within a feasible distance from the user.

It is also important that the UI is highly intuitive with accessibility options like page magnification and text-to-speech options, because a sizeable portion of the user base would be the elderly people. Other implementation constraints include robustness under heavy load and security from malicious users who can jeopardize the privacy of information of other legitimate users.

2.4 Operating Environment

The web app can be reached from any modern browsers like Google Chrome and Mozilla Firefox in a variety of Operating Systems like Mac, Windows, Linux etc.

3 Specific Requirements

Various interfaces in the product could be

- Login page
- Registration Form for customer as well as medical shop owners.
- After signing up in medical shop the owner can add or remove medicines manually.
- After registration of customer it prompt to upload the prescription document to the OMS.
- The prescription document then sent to the nearest medical shops and get validated.
- According to medical stock and nearest node in graph we approve the order and update the stock of medical shop accordingly.

3.1 External Interface Requirements

3.1.1 User Interfaces

The User interface has been specifically designed with their customers in mind, allows them to buy medicines without going to medical shops.

The home screen shows two options one is for user and other is for Medical Store. User after selecting the user options he/she will be redirected to the screen where they will be asked to upload prescription and to mention their address. For Medical store they will be asked to update the details of medicines.

3.1.2 Hardware Interfaces

Hardware requirements for insurance on internet will be same for both parties which are as follows:

- **Processor:** Dual Core
- **RAM:** 8GB
- **NIC:**For each party

3.1.3 Software Interfaces

That is compactible with all operating system i.e Windows, Linux, Debian, Mac...
Software is web based so software needs to have a web browser as well as good internet connection.

3.2 Functional Requirements

This section provides requirement overview of the system.

Various functional modules that can be implemented by the system will be

- **Registration**
 - 1) If the customer want to buy the medicine then he/she must be registered, Unregistered user can't go to the shopping medicines.
 - 2) If the medical shop wants to sell their medicines through the website then they must be Registered.
- **Login**

Customer logs in to the system by entering valid Username and password for buying the medicines from the medical store.
- **Uploading Prescription**

The Customer needs to upload the prescription get the medicine delivered.
- **Validation of the Prescription**

The Medical store end will verify weather the prescription provided is valid or not and carry their further proceedings.
- **Logout**

After ordering or Surfing for the product customer has to logout.
- **Report Generation**

After ordering for the product the system will have sent one copy of the bill to the customers email address and another one for the system database.

3.3 Use Case Model

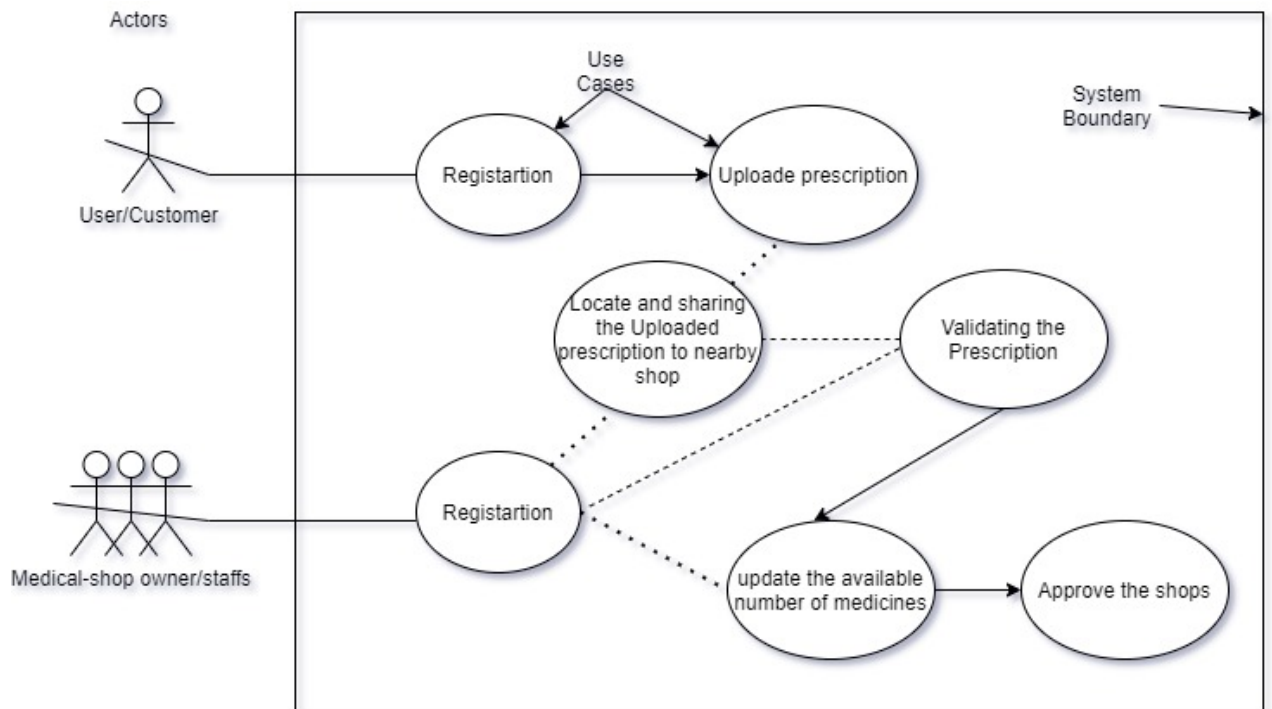


Figure 3.1: Use case model

localhost:8000/customers/sign_up

Sign up for Customer

Email

Password (6 characters minimum)

Password confirmation

User name

Date of birth

Address

Contact

Gender

[Login](#)

Figure 3.2: UI for Customer Registration

localhost:3000/shops/signup

Sign up for Medical shop

Email

Password (6 characters minimum)

Password confirmation

User name

Date of birth

Address

Contact

[Sign up](#)
[Log in](#)

Figure 3.3: UI for Shop Registration

localhost:3000/locations/2

Address: Barauni

Latitude: 25.43145435

Longitude: 86.02837532305762

Nearby Location

- Teghra (5.89 miles)

[Edit](#) | [Back](#)

Figure 3.4: Location UI A

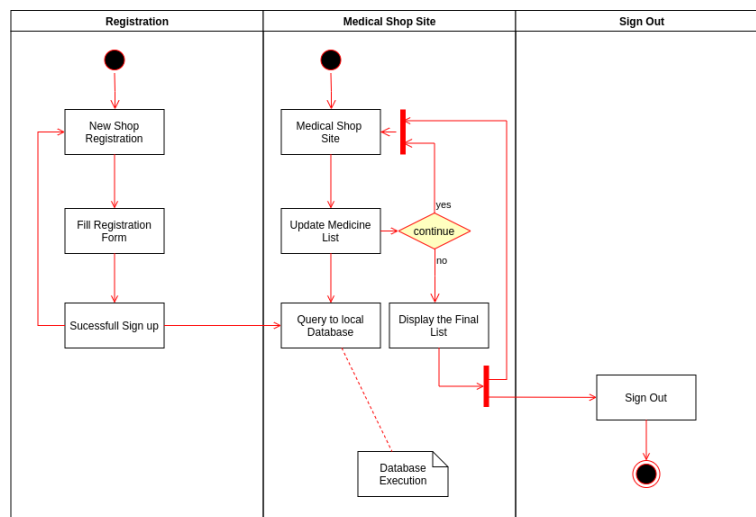


Figure 3.5: UML for Shop

← → ↻ localhost:3000/locations

Locations

Search Near

Address	Latitude	Longitude	Show	Edit	Destroy
Statue of liberty, NY	40.689253199999996	-74.04454817144321	Show	Edit	Destroy
Barauni	25.43145435	86.02837532305762	Show	Edit	Destroy
Teghra	25.4728977	85.9371364160461	Show	Edit	Destroy

[New Location](#)

Figure 3.6: Location_UI_B

← → ↻ localhost:3000/locations/new

New Location

Address

Latitude

Longitude

Image No file chosen

[Back](#)

Figure 3.7: Location_UI_C

4 Other Nonfunctional Requirements

4.1 Performance Requirements

In order to maintain an acceptable speed at maximum numbers of uploads allowed from a particular customers as any number of user can access to the system at any time.

Also the connection to the system is based on attributes of the user like his/her location and shop will working 24x7 times, Quality of Uploaded Prescription document will also affect the Medical-shop performance.

4.2 Safety and Security Requirements

Following Non-functional Requirements will be there in the insurance to the Safety and Security

- Electronic health records (EHR) have a vital role in healthcare and must be secured and appropriate safety from unauthorized users.
- Getting better security of patient's information, the information security must be able to significantly to classify the confidentiality of patient's information
- Licensed(like hipaa compliance) System and functionality of the system.
- Prescribed drug should not be in norm of strict drug, System will not part of this.
- Doctors should prescribe anti-anxiety drugs cautiously and only in small quantity, system should not be the part of this.
- Deliverable correctness and reliability is not under the system functionality.
- If the prescription is valid then only workflow will processed further irrespective of condition of patient.

4.3 Software Quality Attributes

Software component should be designed better to get better performance at peak time. Flexible service based architecture will be highly desirable for future extension. The System should support some commonly used web browser such as IE, Mozilla Firefox, and chrome etc.

Various other Quality Required Attributes are

- Reliability.
- Verifiable.
- Flexibility.
- Robustness.
- Portability.
- Interoperability.
- Reusability.
- Maintainability.
- Correctness.

5 Other Requirements

System should be easily integrable with third party app that support many advance healthcare functionality like Drug Interactions checker, Radiology Image viewer etc. FHIR is a standard describing data formats and elements and an application programming interface for exchanging electronic health records, System should support the FHIR standards.

Healthcare System is only scalable internationalization only if it satisfy the many international compliance like HIPPA. System should be HIPPA Compliance.

6 Appendix A - Activity Log

Ebin J : Created chapter number 2.

Kundan Kumar : Created chapter number 4, 5 and figures [1.1](#), [3.1](#)

Runad Khamkar : Created chapter 1 and figure [1.3](#)

Nagateja Banothu : Created chapter 3 and figure [1.2](#)