Software Requirements

Specification

for

Online Medical Store Management System

Version1.0

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# Introduction

Medicines have always been and will always be a vital part of our society. These play a pivotal role in maintaining and restoring human health, contributing significantly to improving the quality of life, extending life spans, and reducing diseases and viruses. By advancing technologies, we now have the ease of staying at our homes and doing almost everything possible. Just like the other fields in our society, the medical field has also been converted to online. Many stores have started selling their medicines online through apps or creating websites. The convenience offered by these online medical stores has made their demand increase to a great extent. Patients can now order prescribed medicines and over-the-counter drugs from the comfort of their homes, making it easy for the patients with chronic diseases who cannot go outside to buy medicines from physical stores. This comes especially handy for the senior citizens of the society and the people staying in rural and remote areas where access to chemist shops is extremely difficult. Along with the online medical supply, websites and apps have come up with added features of online health consultations with the certified doctors and get report on the website itself. This advanced technology has reduced the burden on traditional healthcare facilities to a great extent.

## Purpose

The purpose of this document is to provide a detailed description of this project, Online Medical Store Management. The purpose of this project is to provide doorstep medicine supply to the people in need. Keeping in mind the high demand of online medicine supply to people’s doorstep in a fast and efficient way, you can now search the required medicines in this software and get the required medicines delivered within 24 hours. The software provides clear and accurate description, usage and dosage of the medicines certified by medical experts in order to spread accurate awareness about diseases and medicines to the common public.

## Intended Audience and Reading Suggestions

* The main target audience of this project is senior citizens and physically- challenged people of the society who are unable to go to buy medicines physically from stores.
* People who live in remote areas, who don’t have easy and fast access to chemist shops.
* Single parents, working people who are too busy to physically buy medicines from stores.

## Product Scope

This is an online medical store management which basically supplies medicines to your doorstep within 24 hours. Users can now easily buy medicines by three categories which are - by diseases, by commonly used and by name. The software has facilitates providing clear description of the medicines and it’s usage and dosage certified by medical experts. Our main feature is to deliver medicines within 24 hours saving the time of the users.

## 

## References

Online medicine apps such as

1. <https://pharmeasy.in/>
2. <https://www.netmeds.com/>
3. <https://www.apollopharmacy.in/>
4. <https://frankrosspharmacy.com/>
5. <https://www.medibuddy.in/about-medicine>

Helps a lot to make these kind of stuffs and by collecting data and information helps us to make better and more usable interface.

# Overall Description

## Product Perspective

This platform is designed for people who want their medicines to be delivered at their doorstep at the quickest. Our platform would not only provide a wide variety of medicines but also provide personalized doctor consultation via video calls and smart medicine recommendation for certain common diseases. Our Software is an open-source project. Developers all around the world can contribute to it and make it better. It is also compatible with all the browsers available in the market.

## Product Functions

Medicine Search:

* Carousel: Display six of the most commonly required medicines for people.
* Items list: Display some common diseases and the respective medicines one can have to get it cured.
* Search Bar: To search for medicines in our store.
* Medical Assistant: An AI based medicine recommendation provider to suggest medicines for a particular disease based on past records and data’s.

Marketing through Platform:

* Referrals section: Section designed particularly to provide discounts and coupons to people who brings in new customers through referrals or word of mouth.
* Rewards: Users who uses our platform way too often for their medical needs will be provided with rewards like platinum membership or special offers.
* Newbie offers: Providing discounts to new users so that they visit the website more often and place order for their needs.

Doctor Consultation

* Video Conference: Having live interaction with a doctor, anytime anywhere.
* Prescription stored in database: The prescription that would be provided by the doctor would be available to the user anytime in the dashboard. It would be in PDF downloadable format.

Medical Store setup:

* Registration: Collecting basic details about the shop-owner for registration purposes.
* Vital Document collection: Asking the shop-owner to provide the PDF format of the government license for authentication.
* Shop Setup: Asking for location and other important credentials for making the online shop functional.

Privacy Policies:

* Fraudulence detection: Details of every medicine would be collected so that fraudulence could be identified and reported immediately.
* Legal Actions: In case any shopkeeper or distributor causes any discrepancy, their actions would be reported as per the privacy policies of the company.

## User Classes and Characteristics

* Typical users such as students, working people, single parents and aged citizens who faces a lot of problem buying medicines from medical shops.
* Shop owners who want to take their business online by registering to our platform and having the benefit of providing medicines to a wide range of customers at their doorsteps.
* Retailers who want to buy medicines in bulk and distribute it in their networks.

## Operating Environment

Our Web Application is compatible in all web browsers. Some common platforms are listed below.

* Chrome
* Bing
* Internet Explorer
* Mozilla Firefox
* Brave
* Yahoo

## Design and Implementation Constraints

Our platform is designed using multiple programming languages like HTML, CSS and JavaScript for frontend designing and PHP and MySQL for backend deployment. The site is run on Apache Web Server and used PHP-MyAdmin as database for storing data.

## Assumptions and Dependencies

The accuracy of the information provided by the software regarding the related diseases, medicines specifications, usages, dosages depends upon the authenticity of primary data sources. The primary sources need to be independently verified for them to be reliable. There may arise a need to incorporate a doctor or physician's approval or a health care facility to prescribe some medication and having a license of the medical store. Besides, it is not feasible for doctors and health care professionals to receive information regarding potential drug interaction problems as they prescribe drugs to patients who already are consuming other medication that may result in their harmful cross action.

**Functional Requirements**

**Requirement 1: Student View Functionality**

1. **Wide Range Of Online Medical Supply**

**Description and Priority**

Our website serves as a platform between the buyers and the medicine sellers, making it extremely easy to supply medicines to the common public through our online services. We have a wide range of connections to vendors of medicines all over India making all different types of medicines, including the ones that the common public might not even know about, easily available to them, that also at the very comfort of their homes. Users can search for the required medicines by directly searching for the name, or by diseases. For the easy access of the users, we have displayed most commonly used medicines in our home page.

**Stimulus/Response Sequence**

1. On the landing page of our website the visitor would be able to view the most commonly used and ordered medicines.
2. There will be a search bar to search for a medicine with its name.
3. There would be filters based on price, quality and brand from where the customer can search for any and every type of medicines they want.
4. **Doorstep Delivery**

**Description and Priority**

Our website provides doorstep delivery to the buyers. Users can buy over-the-counter medicines or prescribed medicines from our website and receive the medicines on their doorstep within the time frame of 24 hours. This feature hugely benefits the part of the public living in remote areas who don’t get easy access to chemist shops. Our main target is to facilitate the senior citizens and physically-challenged people of the society who are, often in urgent need of medicines but are unable to physically go and buy medicines.

**Stimulus/Response Sequence**

1. The customer can place orders and confirm it by making the necessary payment.
2. Once the order is done, the patient would be able to view the order status and keep a track of it.
3. The customer can even opt for cancellation and he would be provided the refund as per the policies.
4. **Online Doctor Consultation**

**Description and Priority**

Our website also provides online doctor consultation. Users can now book appointments with the certified doctors through our website and get consulted by them through video call. This feature specially helps the senior citizens, physically-challenged people, busy officials and patients suffering from chronic illness who are unable to physically go and book appointments for consultation.

**Stimulus/Response Sequence**

1. A customer could come to our platform and book an appointment by filling a form and making a security payment of Rs.300/-.
2. Once the payment is done, the appointment would be in hold for confirmation from the doctor.
3. Once the appointment is approved, the patient can have virtual conversation with the doctor via video call or some other means.
4. **Registration/Sign Up**

**Description and Priority**

Users will have the option of creating their own accounts on our website from the option of “Login/Sign-Up” in the home page itself. The users will still be able to access/use our website without registering themselves but they will not be able to buy medicines from us. In order to wish list medicines or buy them, the users will have to register themselves and then proceed to buy their required medicines.

**Stimulus/Response Sequence**

1. Once a new customer arrives to the platform he is asked to sign-up(if he/she is a new user) of log-in(if the customer is already registered).
2. The customer is asked to set a unique password for logging inside the dashboard.
3. Credentials like name, email-id, contact-number and password is stored inside the database.
4. **Appointment Booking Form**

**Description and Priority**

To book appointments, the users will have to click on the option of “Online doctor consultation” in our website and they will be required to fill up a form which will ask for basic details of the patient, i.e., their name, age, gender, phone number, health problem they are facing and email-address. An option will be provided to the users where they can select whether they want to book appointment of a specific doctor or if they want us to recommend the available doctors for the consultation. An extra of Rs. 300 will be charged for the confirmation of the appointment. Once the form is received on our end, an email will be sent to the doctor required and once the doctor confirms, we will send a confirmation mail to the user providing the time, date and location of the appointment. If the user wants to cancel the appointment, refund is available within 12 hours of confirmation only, after that no refund is possible.

**Stimulus/Response Sequence**

1. The patient is asked to fill credentials like their name, age, gender, phone number, health problem they are facing and email-address.
2. The patient is provided a choice to select a doctor of their own choice or make us decide a doctor for their health problem.
3. Once the form is filled and the patient hits the submit button, he/she is asked to make the pre payment of Rs.300/-.
4. **Educational Content**

**Description and Priority**

Along with the online doctor consultation facility and doorstep online medical supply facility of our website, we provide educational content on various types of diseases, their symptoms and ways of preventing those. Our website will also keep updating our content like when a virus spreads across the society, we will publish content on those viruses and spread awareness in the society so that people can prevent getting any disease and thus avoid medications. The main goal is to spread awareness among the common public so that people can lead a healthy lifestyle.

**Stimulus/Response Sequence**

1. Our platform also has a section specially dedicated for education related content. Once a user clicks on that panel he is redirected to a page containing general information regarding all the common diseases and their basic treatments.
2. This section also has a discussion panel, where people can come and ask question.
3. **Prescriptions in PDF format**

**Description and Priority**

The users will be provided with the prescriptions after their online doctor consultation. Once a user is done with the online doctor consultation from our website, the doctor will provide a prescription which will be sent to the patients through their email address which was taken during the appointment booking of the patient. Thus, the users can buy the prescribed medicines from our website only, making the whole process of medical checkup extremely easy, all done in one place.

**Stimulus/Response Sequence**

1. Once the online consultation with the doctor is done, the prescription is scanned by the doctor and uploaded in the portal.
2. The PDF format of the prescription is also available to the patient and he can even download it for further use.

**Requirement 2: Admission View Functionality**

1. **Create New Application**

**Description and Priority**

Patients and individuals, who are in need of doctor's assistance or to willing to order necessary medicines can create their accounts using their phone numbers (including their country code; for example, in India: +91), their names (divided into three parts: first name, middle name, last name), a valid email address, and a secure password for the application. After entering all of this information, they will need to confirm their chosen password by entering it again. Once the sign-up process is completed, they can log in to the app using their email address and password. Simplifying the registration process will help people to easily complete their login procedures.

**Stimulus/Response Sequence**

1. **Booking procedure of Appointment**

Patients can conveniently seek doctor's assistance by scheduling appointments with their preferred doctors. This process involves providing their name, email address, gender, and phone number, along with the selection of their chosen doctor. This system also offers a "System Recommended Doctor" option, which benefits patients who are unsure about the best doctor to consult for their condition.

1. **View Appointment Status**

The Dashboard offers a comprehensive view, showcasing patients' names, email addresses, phone numbers, and scheduled appointment dates. It provides detailed descriptions of attending doctors. Additionally, a dedicated section enables patients to articulate their health concerns. At the bottom, the payment status is clearly indicated, accompanied by an explanation of the payment details. The inclusion of a cancellation option enhances the user experience, making the system highly accessible and intuitive.

1. **Order Status**

Certainly, the medicine order page provides a seamless experience for users. on the medicine order page, users can select the type of medicine they need, input the quantity, and view the billing amount. The page also features a tracking option to determine the medicine's availability, whether at a local pharmacy or distributor's office. Users can conveniently cancel orders if needed, ensuring a flexible and user-friendly experience.

1. **Document Generation procedure:**

After the doctor's appointment, the system generates a prescription in PDF format. This PDF document will be served as an official record of the prescribed medicines and dosages. User can purchase these prescribed medicines through the app's integrated pharmacy or opt to buy them from other sources of their choice. This streamlined process empowers patients with flexible options for obtaining their prescribed medicines.

1. **Medical Information:**

**Description and Priority**

Our educational content covers disease management, offering valuable insights on controlling various conditions. Do you have any specific questions related to disease management that you'd like to ask the community? Feel free to share your queries, and our community members will provide helpful responses and suggestions based on their experiences and knowledge. This collaborative approach enhances understanding and empowers individuals to take proactive steps in managing their health.

**Stimulus/Response Sequence**

1. Our platform will have a wide educational content which could be highly beneficial for providing general knowledge regarding various diseases and their medication.
2. Community discussion is also a very crucial feature that we would be providing in our platform.

**Requirement 3: System View Functionality**

1. **Validation**

**Description and Priority**

Integrate a robust validation system into this medical system to ensure data accuracy and user safety. This system will authenticate user information during registration, appointment scheduling, and access to medical records. Incorporate verification mechanisms like email confirmation and two-factor authentication to prevent unauthorized access. The validation system should also cross-reference medical credentials of professionals listed on the platform, enhancing trustworthiness. Implement error handling protocols to manage invalid inputs and ensure a seamless user experience. Regular audits and testing procedures should be established to guarantee the reliability and effectiveness of the validation system, contributing to the website's overall integrity. Without authentication, user can see our educational content and available medicines in our website. After authentication they can use the feature of ordering medicines and get them in doorstep and also can book an appointment to renowned doctors.

**Stimulus/Response Sequence**

1. Once a new user signs up to our platform he/she is provided with a confirmation link in his email.
2. Once he clicks on the confirmation link, his account is considered as valid and he is redirected to the dashboard where he/she can order medicines and book appointments with doctors.
3. **Make Recommendation**

**Description and Priority**

Integrate a robust recommendation system into this medical system to enhance user engagement and medical decision-making. By analyzing user behavior and medical history, the system will offer tailored suggestions for treatments, articles, and relevant specialists. The recommendation algorithm shall continuously learn and adapt to user preferences, thereby refining its accuracy over time. It is imperative to ensure data security, user privacy, and compliance with medical regulations. The system's architecture should be designed for scalability, accommodating increasing user interactions while maintaining seamless performance. This feature promises to empower patients with informed choices and facilitate effective doctor-patient interactions.

**Stimulus/Response Sequence**

1. Once the user makes an account with us, a cookie is set that records his most commonly ordered medicines and the doctor he makes appointment with on a frequent basis. Our software reads these cookies and makes recommendation to the patient for better user experience.
2. **Customer Review System**

**Description and Priority**

Incorporate a comprehensive customer system into the medical system Software Requirements to optimize user experience. This system will enable users to create accounts, securely log in, and manage their medical profiles. Users can schedule appointments, access personal health records, and receive tailored recommendations. The system should prioritize data security and adhere to medical privacy regulations, implementing encryption and authentication protocols. Additionally, it should facilitate seamless communication between patients and medical professionals, allowing for prescription requests and follow-up inquiries. The customer system's design should accommodate scalability to accommodate a growing user base and ensure uninterrupted functionality. In this system there is place where users can review our system or leave any comment or queries which will be answered by other users.

**Stimulus/Response Sequence**

1. Once a customer uses the features of our platform he/she is asked for providing reviews of our services.
2. The customer can even ask their queries which will be answered by other users or the admin.

**External Interface Requirements:**

**User Interface**

The user interface for this system will have to be simple and clear. Most importantly, the content must be easy to read, easy to understand and accessible. The color scheme should be appropriate to provide familiarity with the university and there should be no contrast issues.

**Hardware Interfaces**

The basic requirement for running our web application are 1,6 GHz for web, 4 x 1,6 GHz CPUs for web and database hosting , RAM minimum of 4GB and minimum database space of 10GB.

## Software Interfaces

We need a web server to host our website. JavaScript, HTML, PHP files, media files and all the databases that make up your website will be stored on this server. To create the front end of your website, you need to use some specific web tools. They can range from basic HTML editors and graphic authoring tools to complex content management systems that come with debugging tools and built-in frameworks. A Database system is also required as this is a crucial part of any online store, as it stores all the information available on the website. This includes everything from product information to pricing, images, details and all completed sales.

**Communication Interface**

1) Client on Internet will be using HTTP/HTTPS Protocol.

2) Client on intranet will be using TCP/IP protocol.

**Other Nonfunctional Requirements:**

# Performance Requirements:

Many modern devices, including smart phones, tablets, and some laptops, have high-resolution displays has a good kind of stuffs to go smoothly with the system. It can work fine with a variety of web browsers, including popular ones like Chrome, Firefox, Safari, and Microsoft Edge**.**

# Safety Requirements:

There is **insurance** of any personal or medical information such as (contact details, medical history) are being handled securely. With implementation of strong data encryption, secure connections ,and following privacy laws like PDPB (if applicable).

# Security Requirements:

Implementation of strict access controls to ensure that only authorized personnel have access to sensitive data. Using strong authentication methods like passwords, multi-factor authentication (MFA), and role-based access controls. Implementation of firewalls to protect network and use intrusion detection and prevention systems to monitor and respond to potential security breaches.

# Software Quality Attributes:

It provides the users with both simple and advanced features. Due to its well designed and easy to use

interface it can be used by both experts and typical users. However, users must already have a basic

knowledge of using this types before using it.