

Developing a Website to Connect Remote Users with Pharmacies

Across the NCR Region

AM3

Members:

Alejandro, Jerick Luis H.

Andal, Marc

Lacerna, Aljo

Pilapil, Johnrenz

So, Francis

Table of Contents

Table of Contents.....	2
1.0 Introduction.....	3
1.1 Background of the Study.....	4
1.2 Statement of the Objectives.....	5
1.2.1 General Problem.....	6
1.2.2 Specific Problems.....	6
1.2.3 General Objective.....	7
1.2.4 Specific Objectives.....	8
1.3 Scope and Limitations.....	8
2.0 The Proposed System.....	9
2.1 System Overview.....	9

Main	
Characteristics.....	
.....	9
Advantages.....	
.....	10
Obstacles	and
Considerations.....	11
3.0	System
Coding.....	
.....	12
3.1	Programming
Language.....	
.....	12
4.0	Resource
Requirements.....	
.....	12
4.1	Hardware
Requirements.....	
.....	12
4.1	Software
Requirements.....	
.....	12

1.0 Introduction

Individuals, particularly those living in distant or underdeveloped locations, require prompt access to important healthcare services, including pharmaceuticals. Continuous improvements in digital technology have enabled numerous businesses to transcend geographical gaps and give solutions for people who are unable to physically visit service providers. In the area of healthcare, the advent of e-commerce platforms has already revolutionized how customers acquire various products, but the pharmaceutical sector still needs to be developed in this space.

The goal of this project proposal is to create a website platform that connects people in remote locations to different pharmacies in the National Capital Region (NCR), hence improving access to medicines and pharmaceutical services. This website, modeled after the popular e-commerce model utilized by platforms like Shopee, will allow users to explore, compare, and buy drugs from a variety of pharmacies. In addition, the site will include a chatbot that can assist consumers in finding drugs in many pharmacies if they are not accessible at one. This integrated approach not only increases convenience, but it also ensures that consumers have easy access to the medications they require.

1.1 Background of the Study

The healthcare scene has advanced dramatically with the advancement of technology, but there are still obstacles, particularly in the distribution and availability of pharmaceutical items in remote places. The National Capital Region (NCR), the most densely populated region in the Philippines, is home to several pharmacies; however, not all users have equal access to them due to geographic limits, transportation challenges, or other personal circumstances. This problem is exacerbated in distant and rural locations where access to basic healthcare and drugs is scarce.

E-commerce platforms have achieved tremendous success in other industries by allowing users to easily access products from multiple merchants in a single location. Despite the obvious necessity for remote access to pharmaceuticals, the pharmaceutical industry has been hesitant to adopt this paradigm. A well-designed online network that connects customers in remote locations to pharmacies in the NCR could help close this gap by improving convenience, efficiency, and accessibility.

Furthermore, there is an increasing demand for an intelligent system that can help users navigate the complexities of pharmaceutical availability. A chatbot incorporated into the platform can act as a virtual assistant, assisting users in locating alternative pharmacies, recommending identical medications, and delivering vital medication information. This study intends to modernize medicine access by developing a complete, user-friendly platform, guaranteeing that users in remote places have the same options as those in urban centers.

This project proposal seeks to merge components of e-commerce, healthcare access, and artificial intelligence to develop an innovative solution that meets the demands of consumers who require convenient and dependable access to pharmacies and prescriptions.

1.2 Statement of Objectives

This project proposal aims to develop MediHub, an online platform meant to improve access to pharmaceutical services for users, particularly those living in remote or rural location. Given the growing reliance on digital solutions to overcome geographical obstacles, MediHub will function as a comprehensive platform connecting customers to pharmacies around the National Capital Region (NCR). By providing an e-commerce-style interface comparable to platforms such as Shopee, Lazada, etc. the website would enable customers to look for, compare, and purchase drugs from numerous pharmacies without having to travel. Furthermore, the site will include a chatbot to help consumers identify alternate pharmacies or replace prescriptions when certain items are out of stock.

MediHub's development addresses various difficulties that rural residents experience today. For starters, persons residing outside the NCR frequently have limited or no access to the medications they require, resulting in gaps in their healthcare needs. Second, the hassle of visiting various pharmacies to find specific medications can be both time-consuming and frustrating. Furthermore, when prescription medications become unavailable, consumers frequently struggle to find suitable alternatives without professional assistance.

By developing this online platform, this project hopes to address these issues by providing a one-stop shop for medicine purchases, guaranteeing that consumers can find the prescriptions they require without undue difficulty. The goals of this project proposal are not only to create a user-friendly website that allows quick access to drugs but also to bridge the gap between the underserved communities and pharmacies in the NCR, thereby enhancing healthcare services access for everybody. The chatbot function will provide customers with real-time support in discovering medicines, finding necessary alternatives, and receiving prompt medical advice, promoting more educated healthcare decisions.

1.2.1 General Problem

With the distance of people living in the rural area, especially those outside the NCR, they have less access or have no way to buy medicines and even have consultations from the doctors or medical staff.

1.2.2 Specific Problems

1. Residents who live in the rural areas may find it hard or difficult to obtain the specific medicines they need.
2. Having to visit several pharmacies or drug stores to find the medicines they're looking for can be inconvenient and even time-consuming, and even worse may not find what they are looking for.
3. Without consultation or guidance, the residents may encounter difficulties when finding the substitutes when their prescription medications go out of stock.

1.2.3 General Objective

The goal of this project is to develop an online platform named MediHub, that could connect users, especially those in rural areas, as well as areas where connections to facilities are limited, or far away, to pharmacies in the National Capital Region. The project aims to improve access to pharmaceutical services and medicines for people who may have difficulty reaching physical pharmacies.

1.2.4 Specific Objectives

- Develop an easy-to-use website that allows users to buy medications from different NCR pharmacies.
- Offer a platform that makes it simple for customers to locate available medications without having to go to several establishments.
- Closing the gap between pharmacies in underprivileged communities and the NCR in order to improve access to healthcare.

1.3 Scope and Limitation

Scope

MediHub is designed to make it easier for people living in remote areas to access medicines from pharmacies in the National Capital Region (NCR). The website will allow users to browse and purchase medicines from a wide selection of pharmacies, much like an online shopping platform. The goal is to help users find the medications they need without the hassle of traveling long distances or searching multiple stores. A key feature of the platform is a built-in

chatbot, which will assist users in finding specific medicines, suggesting alternatives when needed, and locating pharmacies that have the required stock. This will provide an additional layer of convenience, especially for those who may not have easy access to physical pharmacies. The website will focus on making everything user-friendly, ensuring that even those with limited experience using technology can navigate the platform easily. MediHub is all about improving healthcare access for people who might otherwise struggle to find the medicines they need in a timely and convenient way.

Limitation

While MediHub has the potential to improve access to medicines, there are some challenges and limitations to consider. For now, the platform will only be connected to pharmacies located in the NCR, which means that people in more remote areas might face longer delivery times or higher shipping costs when ordering medicines. The reach of the platform is limited by the availability of delivery services to these far-flung locations.

Another limitation is that the chatbot, while helpful in suggesting medication or alternatives, isn't a replacement for real medical advice. Users should still consult with healthcare professionals for guidance on their prescription or health concerns, as MediHub cannot diagnose conditions or prescribe treatments. The platform's success will also rely on how many pharmacies decide to join. If only a handful participate, users might not find the full variety of medicines they're looking for. On top of that, people in areas with weak internet

connections could face difficulties using the site, which may limit how helpful the platform can be for them.

2.0 The Proposed System

2.1 System Overview

The online platform MediHub aims to link users in remote areas with pharmacies in the National Capital Region (NCR). The goal of the platform is to enhance pharmaceutical service availability using e-commerce and AI technologies, providing an easy-to-use experience for those with restricted access to brick-and-mortar pharmacies.

Main Characteristics

Easy-to-use Interface: The platform will have a user-friendly layout, allowing users to easily navigate, search for medications, and make orders. MediHub will collaborate with numerous pharmacies in the NCR to offer a wide range of medications, guaranteeing that users can easily locate the items they require.

- Built-in AI chatbot integrated to help users.
- Finding particular medications at multiple pharmacies.
- Proposing other treatment options as necessary.
- Sharing details regarding the accessibility and consumption of drugs.

Search and Compare: Users have the capability to browse and contrast prices and availability of medications across different pharmacies, similar to how they would on

well-known online shopping websites. Safe and secure payment options will be guaranteed by the platform, keeping user data and transaction details safe.

Advantages:

- Improved accessibility: MediHub facilitates access to NCR pharmacies for remote users, making it easier to obtain necessary medications without the need for extensive travel.
- Convenience: Users can conveniently purchase medications online from the comfort of their homes, saving time and effort.
- Enhanced Healthcare Access: The system bridges the gap between rural areas and urban healthcare centers, promoting health equity.

Obstacles and Considerations:

- Delivery times may be prolonged and shipping costs may increase for users in remote areas.
- Medical Consultation: While the chatbot can provide medication information, it cannot replace professional medical advice.
- Internet Connectivity: Limited internet access may pose challenges for individuals trying to use the platform effectively.

For the success of MediHub, it is essential for a variety of pharmacies to participate and offer a wide range of choices.

Overall, MediHub aims to transform access to pharmaceuticals in remote regions by providing a comprehensive, convenient, and reliable online platform.

3.0 System Coding

The development of MediHub will use HTML, CSS, JavaScript, and Python. A chatbot API will be integrated to assist users in finding medications and alternatives.

3.1 Programming Language

HTML & CSS

HTML: For structuring web pages.

CSS: For styling and layout.

JavaScript

JavaScript: For dynamic interactions and front-end logic.

Google Maps API

Integrate google maps API to provide real-time assistance to users.

4.0 Resource Requirements

Since MediHub is largely a web-based platform, it is critical that the application is lightweight and runs efficiently even with minimal hardware and software specifications. The major purpose is to give smooth access to the website and its services without requiring high-end infrastructure, allowing users in remote regions or with limited resources to take advantage of the platform.

4.1 Hardware Requirements

- **Device:** Any basic smartphone, tablet, or computer with internet access. The website will be responsive and optimized for mobile devices, ensuring compatibility with low-cost devices.
- **Processor:** At least 1.5 GHz dual-core processor.
- **RAM:** A minimum of 2 GB of RAM for smooth browsing experience.
- **Storage:** No significant storage is required on the user's device as the website runs through a web browser.

4.1. Software Requirements

- **Web Browser:** Any modern web browser such as Google Chrome, Mozilla Firefox, Safari, or Microsoft Edge, supporting HTML5.
- **Operating System:** No specific OS requirement as long as a modern browser is supported. This includes Windows, macOS, Android, iOS, and Linux.