MedicoPlus: We Care for Your Health During the Crisis Period of COVID 19

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Abstract:- All due credit goes to the internet and the way we trust e-commerce now. It has become way more convenient in recent times and has been accepted by consumers, preferring to do online shopping. There can be no doubt in what we have witnessed in terms of prospects achieved using technology. It has also become common market to buy our medical products online and with this ease of shopping for health purposes. There are many locations in our country where the number of medical stores is few. Some do not supply necessary medicines and medical equipment. Especially in times like these, people cannot go outside to buy medicines due to the COVID 19 crisis. In this scenario, our medical shopping site, MedicoPlus provides various medicines and medical products/ equipment that we might need regularly. In this paper we have provided suggestions for the names of the most appropriate medicine for few common illnesses with consultation with Doctors and pharmacists. It is convenient in every way possible for the user, as this system provides accurate cost and description of the products. Users can view different categories of products of different pharmaceutical companies in a single place. The website is user-friendly, flexible, responsive and hassle-free. Our objective is to provide the service that you hope and need, most suitably and appropriately.

Keywords:- Component; Formatting; Style; Styling; Insert.

I. INTRODUCTION

The internet and the way we trust e-commerce have become a whole lot easier, convenient and acceptable to do shopping online. There can be no hesitation in admitting that we are in harmony with technology till the very present day. Our Medical shopping site, *MedicoPlus* is an E-commerce Subimal Nandi Department of Computer Science and Engineering JIS College of Engineering Kalyani, Nadia, West Bengal, India

project. It provides various medicines and medical products that we need regularly. This website also provides the name of the perfect medicines to recover from diseases. Before the implementation of a website dedicated to pharmacies for medicine and products shopping, keeping proper records of customer details, purchase records, prescription details, supply and distribution was really challenging. Resulting in wastage of resources, including the capital, time, and manpower. All due credit goes to technology and the way we use e-commerce now. It has become way more convenient in recent times and has been accepted by consumers, preferring to do online shopping. The progress in this domain has been commendable also resulted in the tracking, controlling of the customer's regular transactions and the pharmacy's success. It also aids in the meeting of the customer's vital needs. Access to the right information and authentic medicines has been made possible by these ecommerce websites dedicated to medical needs. This website was designed specifically to address the needs of small, medium and large pharmacies/ pharmaceutical groups around the world.

II. MOTIVATION

The real inspiration behind the online e-commerce pharmacy is to make all management processes, such as customer registration, billing, doctor consultations, prescription generation and purchase of medicine and products, as simple as possible. We often observe that to learn about a customer's past, the user must search through previous purchase records. As a result, time is wasted. As a result, all processes would be easier to handle. In addition to this, using the inspiration of this situation (COVID crisis), we are now developing a website that would support both customers and pharmacy staffs. As a result, we'd like to

have this website, which enables the pharmacies to function efficiently and effectively.

III. OVERVIEW

Before the implementation of a website dedicated to pharmacies for medicine and products shopping, keeping proper records of customer details, purchase records, prescription details, supply and distribution was challenging. Resulting in wastage of resources, including the capital. time, and manpower. All due credit goes to technology and the way we have trusted and shifted to e-commerce. Making it way more convenient in recent times than it had ever been before, accepted by consumers for online shopping. The progress in this domain has been commendable also resulted in tracking and controlling the customer's regular transactions. It also aids in the meeting of the customer's vital needs. Access to the right information and authentic medicines has been made possible by these e-commerce websites dedicated to medical needs. This website was designed specifically to address the needs of small, medium and large pharmacies/ pharmaceutical groups around the world.

IV. BACKGROUND STUDY

A. Software Development Life Cycle

System Development Life Cycle (SDLC) is a framework. It defines the tasks that need to be carried out in each phase.

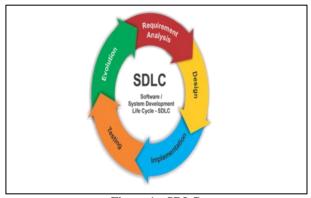


Figure 1: SDLC

V. REQUIREMENT ANALYSIS

A. STUDY OF THE EXISTING SYSTEM:

- Rural areas are not as benefited, due to long delivery response.
- The traditional warehousing system is followed.
- Urgent medical needs aren't met.

B. THE PROPOSED SYSTEM:

- Various medicines and medical products to choose from, that customer needs.
- Supply the medicines that you need.
- Minimize the effort of the customer and prioritize safety and help save time.

- *C. ADVANTAGES OF THE PROPOSED SYSTEM:* The advantages of the system are following:
 - The website is user-friendly and responsive.
- The website functions without any noticeable snags.
- Listing medicines and products of trusted medical brands.
- Quickest possible delivery with optimized services.

D. DISADVANTAGES OF THE PROPOSED SYSTEM: Disadvantages of the system are following:

- Prescription validation was unavailable.
- Network snags can cause user dissatisfaction.
- Orders in bulk are limited.

E. Goals of Implementation

This system is aimed to be a better and improved version of the website. This website can overcome several limitations of the existing and conventional solutions. This product establishes proper security reducing manual efforts.

- Ensuring data reliance.
- Direct control in the hands of officials.
- Time efficiency is improved.
- Assured service.
- Quality is prioritized.
- User involvement and convenience.

VI. FEASIBILITY STUDY

A. Product Feasibility:

In medical store applications, everyone can purchase medical product online, which is the biggest challenge for large and small medical stores. It is a web-based solution to improve the online medical store business.

B. Technical feasibility:

It is the complete analysis of the project in terms of specifications and requirements. It is suitable for projects with a longer duration for effective planning and troubleshooting. It should mention the financial information, material, manpower, transportation and technology used.

C. Social feasibility:

It has to be taken into consideration for various PPP projects, as many infrastructural initiatives have severe impacts and setbacks on communities and surroundings.

It helps in analyzing profit margins against the estimated investment for a project. Total costing and time required are major factors discussed.

These include:

- Economic analysis and breakdown.
- Estimated cost for a project.
- Estimated earnings from a project.
- Factors of risk and crisis.
- Benefits of investment for a longer period.

This helps identify and analyze the impacts, helping to understand the scale and approach of the project better.

D. Economical feasibility:

This analysis is to determine the efficiency of an emerging project. It deals with the economic domain related to the project.

E. Market research:

It is concerned about the systematic accumulation of data regarding the people, the companies, the market and of course the analysis of all this information, to better understand the scenario. Market research, are viewed in reports, that are used to help businesses make learned decisions and make strategies, for operations and potential growth.

VII. DESIGN

• **HTML:** Hyper Text Markup Language (HTML) or text formatting language is used to create web pages and web applications.

HTML maintains the structure of a web page. It comprises various elements and their proper uses.

HTML has two sections: Head and Body.

- **CSS:** Cascading Style Sheet (CSS) maintains the HTML elements that are to be displayed on the web pages. CSS has various built-in templates that can simply control the layout of various web pages simultaneously. It allows web pages to adapt to the different devices and their requirements.
- **BOOTSTRAP:** It is the First mobile front- end framework. It is used mostly in modern websites and web apps. It is open-source and features various templates for interactive User Interface. Elements like buttons, tables, forms and many more. Bootstrap supports numerous JavaScript extensions for ease of use.
- **MYSQL:** MySQL uses Structured Query Language (SQL) to access the database. It is used for a wide range of purposes, including data-driven solutions, data warehousing and data maintenance. Most commonly it is used as a web database.
- **ANGULAR 6:** Angular is a platform and framework for building applications for clients using HTML and TypeScript. Angular implements core and additional functionalities. Single-page applications (SPAs) are built using Angular, with compelling features without compromising interactive and dynamic layouts.
- **JAVASCRIPT:** It is a popular text-based programming language. It is widely used on both client and serverside. Interactive elements with which the users engage are created using JS.
- **NODEJS:** NodeJS is open- source framework which uses JavaScript. It is fast, minimizes memory and processor usage.

- **Tools:** VS Code is a code editor that supports development operations with additional features.
- Platform: Microsoft Windows 10
- **XAMPP SERVER:** It stands for cross-platform, Apache, MySQL, PHP and Perl. It enables website hosting(offline) a local webserver. This software works on various Operating Systems and platforms.

A. FLOW CHART:

A flowchart is a series of control steps or a series of control flows. A flowchart has entire requirements or specifications stated by the customers/ clients.

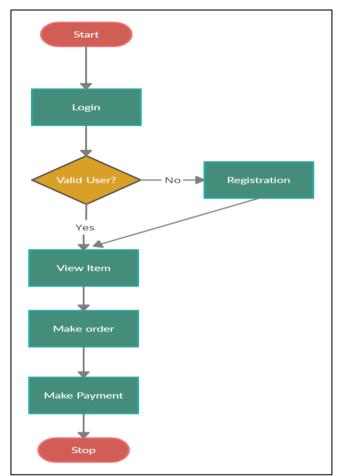


Figure 2: System Flow Chart

B. Data Flow Diagram:-

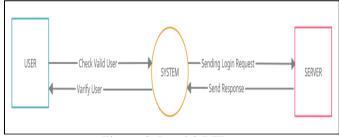


Figure 3: Level 0 DFD

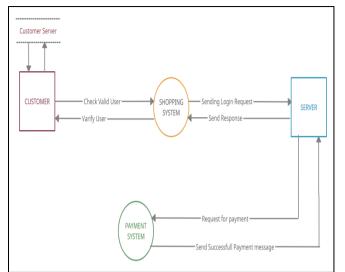


Figure 4: Level 1 DFD

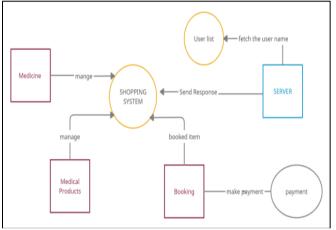


Figure 5: Level 2 DFD

C. DATABASE DESIGN

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Figure 6: Database Structure

• UserList In Server:

The names of the registered people are stored on the server

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Figure 7: User List In Server

VIII. TESTING

Testing is a process of excising or evaluating a system or system component, manually or using automation. It is used to test and verify that specified requirements are satisfied.

The life cycle for Testing:

- Testing plan (Documentation).
- Testing design.
- Testing software execution.
- Report to Developer.
- Verification and validation.
- Closure.

Unit-Testing:

The developer checks the source code along with specifications.

Integration testing:

Developers and Testers check specifications. It aims to resolve errors in a top-down approach.

System Testing:

Testers test the software. Functional, nonfunctional, logical and conditional parts are evaluated.

Acceptance Testing:

Clients check the system for desired specifications. It is tested in a development environment and real-world environment.

IX. RESULTS

In this project, we have presented a Medicine and Medical Products shopping site. After successfully registering or login user can go to the item page. This page contains two buttons - one is for medicine and another is for medical products. Users can buy according to their demand by clicking the buy button on the medicine and medical products pages.

Home page: After login user will enter the home page

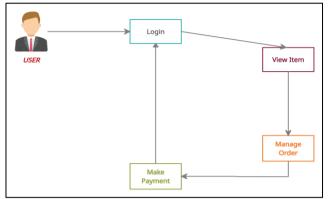


Figure 8: Workflow of the system



Figure 9: Home Page

Medicine Page

This is the medicine page. Each medicine contains a buy button.

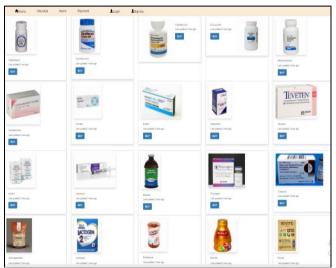


Figure 10: Medicine Page

Payment Page

As the result of clicking the buy button on the medicine and medical products page, the payment page will show.

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						Logout

Figure 11: Payment Page

X. FUTURE SCOPE

More advanced software for online medical stores including more facilities.

- A mobile-compatible application for this site.
- Connecting Google Maps and GPS to get the nearest pharmacy location with available products for quicker delivery.
- Implementation of a Smart Inventory System for checking the availability of the product in the nearest store, to reduce massive warehousing problems.

XI. CONCLUSION

This report presents the online medicine and medical products shopping site. It can open on any devices i.e., smartphones, tablets, computers etc. The aim of the site is reliability, availability, security, portability. With the help of this project customers will be able to search and buy medicines and medical products from anywhere and as per the requirements.

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REFERENCES

- [1]. Roger S. Pressman. Software Engineering: A Practitioner's Approach (Sixth Edition, International Edition). McGraw-Hill, 2005.
- [2]. Ian Sommerville. Software Engineering (Seventh Edition) Addison-Wesley, 2004.
- [3]. HTML5 for Web Designer by Jeremy Keith.
- [4]. HTML for World Wide Web (Visual QuickStart Guide) by Elizabeth Castro.
- [5]. Pro HTML5 Programming: Powerful APIs for Richer Internet Application Development by Peter Lubbers.
- [6]. CSS Anthology by Rachel Andrew.
- [7]. Handcrafted CSS: More Bulletproof Web Design/Bulletproof Essentials by Dan Cederholm, Ethan Marcotte.
- [8]. Database System Concepts by Abraham Silberschatz, Henry. F. Korth, S. Sudarshan.