A

Theme Based Project Report

on

MEDICINE DELIVERY WEBSITE

Submitted for partial fulfilment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

By

J JYOTHIRMAI(2451-22-733-109)

Under the guidance of

T SRIKANTH
Assistant Professor

Department of CSE

MATURI VENKATA SUBBA RAO(MVSR) ENGINEERING COLLEGE
(An Autonomous Institution)
Department of Computer Science and Engineering
(Affiliated to Osmania University & Recognized by AICTE)
Nadergul, Balapur Mandal, Hyderabad – 501 510
Academic Year: 2022-2023

MATURI VENKATA SUBBA RAO(MVSR) ENGINEERING COLLEGE
(An Autonomous Institution)
Department of Computer Science and Engineering
(Affiliated to Osmania University & Recognized by AICTE)
Nadergul, Balapur Mandal, Hyderabad – 501 510

CERTIFICATE

This is to certify that the Theme Based project work entitled *"***MEDICINE DELIVERY WEBSITE***"* is a bonafide work carried out by **J JYOTHIRMAI (2451-22-733-109)***in partial fulfilment of the requirements for the award of degree of **Bachelor of Engineering** in **Computer Science and Engineering** from **Maturi Venkata Subba Rao(MVSR) Engineering College,** affiliated to OSMANIA UNIVERSITY, Hyderabad, during the Academic Year 2022-2023. under our guidance and supervision.

The results embodied in this report have not been submitted to any other university or institute for the award of any degree or diploma.

Internal Guide
T Srikanth
Assistant Professor
Department of CSE
MVSREC.

Project Coordinators
Meduri Anupama
Associate Professor
M.V.R Jyothisree
Assistant Professor

Head of the Department
Prof J Prasanna Kumar
Professor & Head
Department of CSE
MVSREC.

External Examiner

DECLARATION

This is to certify that the work reported in the present Theme Based project entitled **"MEDICINE DELIVERY WEBSITE"** is a record of bonafide work done by us in the Department of Computer Science and Engineering, M.V.S.R. Engineering College, Osmania University. The reports are based on the work done entirely by us and not copied from any other source.

The results embodied in this report have not been submitted to any other University or Institute for the award of any degree or diploma to the best of our knowledge and belief.

J Jyothirmai

(2451-22-733-109)

ACKNOWLEDGEMENT

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

VISION

To impart technical education of the highest standards, producing competent and confident engineers with an ability to use computer science knowledge to solve societal problems.

MISSION

To make the learning process exciting, stimulating and interesting.

To impart adequate fundamental knowledge and soft skills to students.

To expose students to advanced computer technologies in order to excel in engineering practices by bringing out the creativity in students.

To develop economically feasible and socially acceptable software.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The Bachelor's program in Computer Science and Engineering is aimed at preparing graduates who will:-

PEO-1: Achieve recognition through demonstration of technical competence for successful execution of software projects to meet customer business objectives.

PEO-2: Practice life-long learning by pursuing professional certifications, higher education or research in the emerging areas of information processing and intelligent systems at a global level.

PEO-3: Contribute to society by understanding the impact of computing using a multidisciplinary and ethical approach.

Program Specific Outcomes(PSOs)

PSO1: Demonstrate competence to build effective solutions for computational real-world problems using software and hardware across multi-disciplinary domains.

PSO2: Adapt to current computing trends for meeting the industrial and societal needs through a holistic professional development leading to pioneering careers or entrepreneurship.

CERTIFICATION

Infosys®
Navigate your next

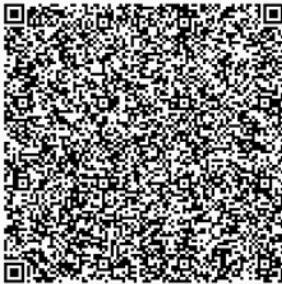| | | | | | | | | | | COURSE COMPLETION CERTIFICATE | | | | | | | | | |

The certificate is awarded to

JORRIGALA JYOTHIRMAI

for successfully completing the course

HTML5 - The Language

on October 13, 2024

Infosys | **Springboard**

Congratulations! You make us proud!

Thirumala Arohi
Executive Vice President and Global Head
Education, Training & Assessment (ETA)
Infosys Limited

Issued on: Sunday, October 13, 2024
To verify, scan the QR code at https://verify.onwingspan.com

ABSTRACT

In today's fast-paced world, easy access to essential healthcare products is a necessity. A **Medicine Delivery Website** aims to bridge the gap between pharmacies and customers by providing a seamless platform for ordering medicines online. This system allows users to browse a wide range of medicines, upload prescriptions, and place orders from the comfort of their homes. With user-friendly navigation, secure payment gateways, and real-time order tracking, the platform ensures a hassle-free experience for customers. It also connects with verified pharmacies to ensure the delivery of genuine and approved medications.

Additionally, the system offers features like reminders for refilling prescriptions, discounts on recurring orders, and emergency delivery options to cater to urgent needs. Pharmacists and admins can manage inventory, verify prescriptions, and process orders efficiently through a dedicated backend. By digitizing the medicine purchasing process, this website promotes better healthcare accessibility, saves time for patients, and supports pharmacies in expanding their reach. Overall, the **Medicine Delivery Website** is a step forward in improving healthcare delivery through technology.

J Jyothirmai
(2451-22-733-109)

TABLE OF CONTENTS

LIST OF FIGURES

Chapter 1

1.INTRODUCTION

1.1 Problem Statement and Scope

1.1.1 Problem Statement

Access to essential medicines can be challenging for many people due to factors such as distance from pharmacies, long waiting times, and unavailability of specific medicines. Elderly patients, individuals with chronic illnesses, and people living in remote areas often struggle to get timely access to their prescribed medications. The lack of an organized and reliable system for ordering medicines online also leads to delays in treatment, which can worsen health conditions.

To address these issues, there is a need for a **Medicine Delivery Website** that allows users to conveniently order medicines online and have them delivered to their homes. Such a platform should ensure the availability of genuine medicines from verified pharmacies, provide prescription uploads for validation, and offer features like order tracking and customer support. This system would improve the overall accessibility and efficiency of medicine delivery, especially for those who are unable to visit pharmacies physically.

1.1.2 Scope

The **Medicine Delivery Website** will serve as an online platform where users can easily search, order, and receive medicines from verified pharmacies. The system will allow customers to upload prescriptions, browse medicines by category, check availability, and make secure online payments. Additional features like order tracking, delivery status notifications, and refill reminders will be integrated to enhance user convenience. The website will be designed to ensure a smooth user experience, focusing on accessibility, reliability, and security of personal and medical data.

On the backend, the system will enable pharmacies to manage their inventory, verify prescriptions, and process orders efficiently. Admins will oversee user activities, pharmacy registrations, and resolve disputes when necessary. The platform will also support emergency delivery requests for critical medicines and offer discounts or subscription plans for regular users. Overall, this system aims to improve the healthcare delivery process by leveraging technology to make medicine procurement faster, safer, and more accessible for everyone.

1.2 Application Areas/User/challenges

1.2.1 Applications Areas

1. **Home Delivery of Medicines** – Convenient doorstep delivery of prescribed and over-the-counter medicines.

2. **Chronic Disease Management** – Regular medicine refills for patients with long-term conditions like diabetes, hypertension, etc.

3. **Emergency Medicine Supply** – Quick delivery of critical medicines in urgent situations.

4. **Remote and Rural Healthcare Access** – Providing medicines to people in rural or hard-to-reach areas.

5. **Elderly and Disabled Patient Support** – Helping those who are unable to visit pharmacies due to age or disability.

6. **Subscription-based Medicine Refills** – Automated monthly or weekly delivery for ongoing treatments.

7. **Telemedicine Integration** – Linking with online doctor consultations for direct prescription fulfillment.

8. **Health and Wellness Products Delivery** – Supplying supplements, health devices, and hygiene products along with medicines.

9. **Inventory Management for Pharmacies** – Helping pharmacies manage stock and streamline the medicine supply chain.

10. **Corporate and Institutional Medicine Supply** – Bulk delivery for organizations, clinics, and healthcare facilities.

1.2.2 Challenges

Prescription Verification – Ensuring that prescription-based medicines are sold only to customers with valid prescriptions.

Regulatory Compliance – Following government rules and healthcare regulations related to online medicine sales.

Medicine Authenticity – Guaranteeing that only genuine and non-expired medicines are delivered.

Cold Chain & Storage – Managing proper storage and transportation of temperature-sensitive medicines.

Timely Delivery – Ensuring on-time delivery, especially for critical or emergency medicines.

Data Security & Privacy – Protecting sensitive customer data, including medical records and prescriptions.

Inventory Management – Keeping track of stock levels, expiry dates, and availability across multiple pharmacies.

Logistics & Last-Mile Delivery – Managing efficient logistics, especially in remote or rural areas.

Customer Trust & Awareness – Building trust among users to shift from traditional pharmacies to online platforms.

Handling Returns & Cancellations – Managing safe and compliant return processes for medicines when necessary.

1.2.3 Users

Customers/Patients – People who order medicines for personal use or for family members.

Doctors/Prescribers – Medical professionals who issue prescriptions that can be uploaded to the platform.

Pharmacists – Licensed pharmacy owners and staff who process, verify prescriptions, and dispatch medicines.

Delivery Agents – People responsible for delivering medicines safely and on time to customers.

Administrators – Website and platform managers who oversee operations, resolve issues, and ensure compliance.

Inventory Managers – Personnel who handle stock updates, monitor medicine availability, and manage warehouse operations.

Customer Support Staff – Team members who assist users with order issues, queries, and returns.

Healthcare Institutions – Clinics, hospitals, or organizations placing bulk orders for medicines and medical supplies.

Caregivers/Family Members – Individuals ordering medicines on behalf of elderly or dependent patients.

Regulatory Authorities (Indirect Users) – Government bodies ensuring that the platform adheres to medical and legal standards.

Chapter 2

2.SYSTEM REQUIREMENTS

2.1 Tools and Technologies Used in the Project

The programming languages used are

- Front end : HTML, CSS, JavaScript
- Back end: PHP

Database: MYSQL

Windows based on any operating system

XAMPP Server

2.2 Hardware and Software Requirements

2.2.1 Hardware Requirements:

- Processor: 2.30 GHz
- RAM: 4.00 GB
- OS: 64-bit operating system

2.2.2 Software Requirements:

- Database Management System (DBMS): To store and retrieve data effectively.
- Web Server: Install and configure a web server to handle HTTP requests.

2.3 I/O Specifications

1. **User Account Confirmation** – Registration success or failure message.
2. **Medicine Search Results** – List of available medicines matching the search query.
3. **Prescription Approval Status** – Notification on whether prescription is approved or rejected.
4. **Order Confirmation** – Order number, invoice, and estimated delivery time.
5. **Payment Receipt** – Confirmation of successful or failed transaction.
6. **Order Tracking** – Real-time updates on order status (processing, shipped, out for delivery, delivered).
7. **Notifications/Alerts** – Alerts for order status, delivery, offers, and refill reminders.
8. **Inventory Update** – Automatic updates to stock levels post-order processing.
9. **Admin Reports** – Reports on sales, inventory, pharmacy performance, and user activity.
10. **Customer Support Response** – Replies to user complaints, queries, and return requests.

Chapter 3

3. SYSTEM ARCHITECTURE

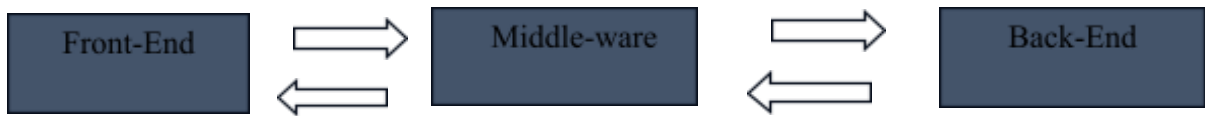| Front-End	$\Longrightarrow$ $\Longleftarrow$	Middle-ware	$\Longrightarrow$ $\Longleftarrow$	Back-End

Fig 3.1: The system structures

System architecture refers to the conceptual model that defines the structure, behavior, and interactions of different components within a software system. Typically, a system is divided into **three main parts**: **Front-end, Back-end, and Mediator**.

The **Front-end** is the client-side interface that users interact with directly. It is responsible for collecting user inputs, displaying outputs, and ensuring a smooth user experience. Technologies like **HTML, CSS, and JavaScript** are commonly used to build responsive and interactive interfaces.

The **Back-end** is the server-side part of the system that handles the core logic, processes requests, manages databases, and performs computations. It is built using technologies such as **Python, Node.js, Java, or PHP**. The back-end ensures that the system works as intended behind the scenes.

The **Mediator**, often in the form of **APIs (Application Programming Interfaces)**, serves as a bridge between the front-end and back-end. It manages communication, ensures data is exchanged securely, and formats the data (usually in **JSON or XML**).

Chapter 4

4. IMPLEMENTATION

4.1 Environmental Setup

1. Visual studio code

Visual Studio Code is the most popular code editor and the IDEs provided by Microsoft for writing different programs and languages. It allows the users to develop new code bases for their applications and allows them to successfully optimize them and debug them properly. It is a very user-friendly code editor and it is supported on all different types of operating systems like Windows, macOS, and Linux. It has support for all the languages like C, C++, Java, Python, JavaScript, React, Node JS, etc.

It is the most popular code editor in India also. It allows users with different types of in-app installed extensions for the different types of their supported languages. It allows programmers to write code with ease with the help of these extensions. Also, Visual Studio Code has a great vibrant software UI with amazing night mode features. It suggests auto-complete code to the users which suggests the users complete their code with full ease.

Installing Visual Studio Code on Windows

Follow the below steps to install **Visual Studio Code** on Windows:

Step 1: Visit the official website of **Visual Studio Code** using any web browser like Google Chrome, Microsoft Edge

Step 2: Press the "Download for Windows" button on the website to start the download of the Visual Studio Code.
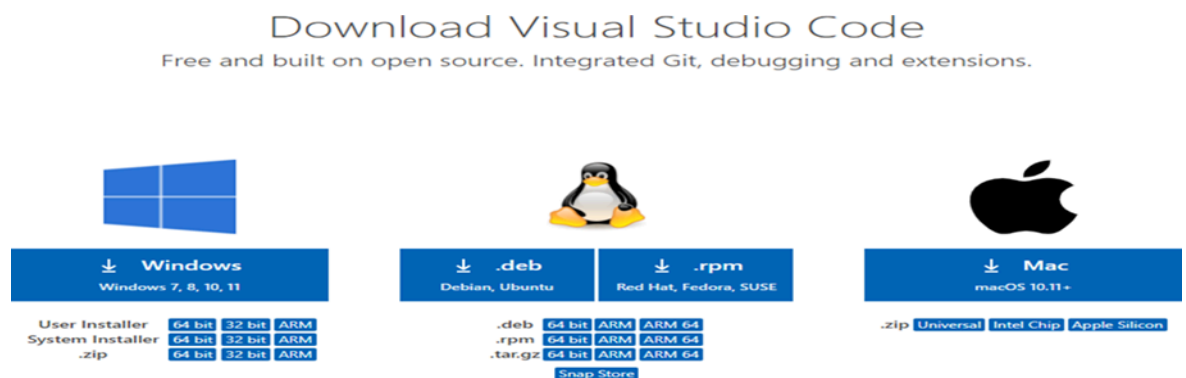
Fig.4.1.1 Download visual studio code

Step 3: When the download finishes, then the Visual Studio Code icon appears in the downloads folder.

Step 4: Click on the installer icon to start the Visual Studio Code installation process.

Step 5: After the Installer opens, it will ask you to accept the terms and conditions of the Visual Studio Code. Click on **I accept the agreement** and then click the **Next** button.

Step 6: Choose the location data for running the Visual Studio Code. It will then ask you to browse the location. Then click on the **Next** button.
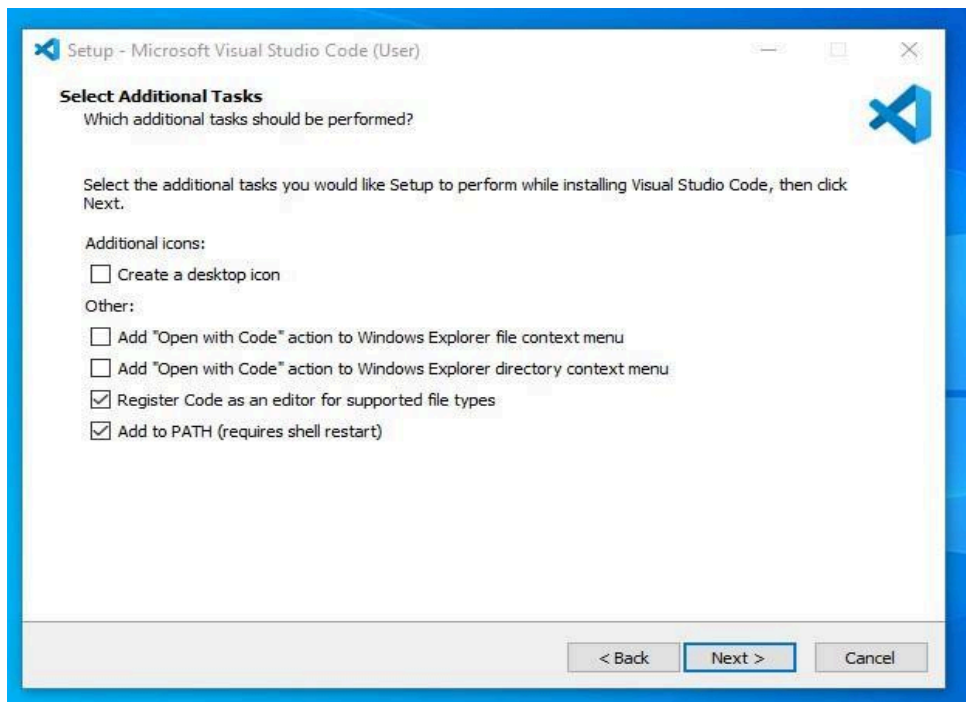
Fig 4.1.2 Step 2 of downloading

Step 7: Then it will ask to begin the installation setup. Click on the Install button
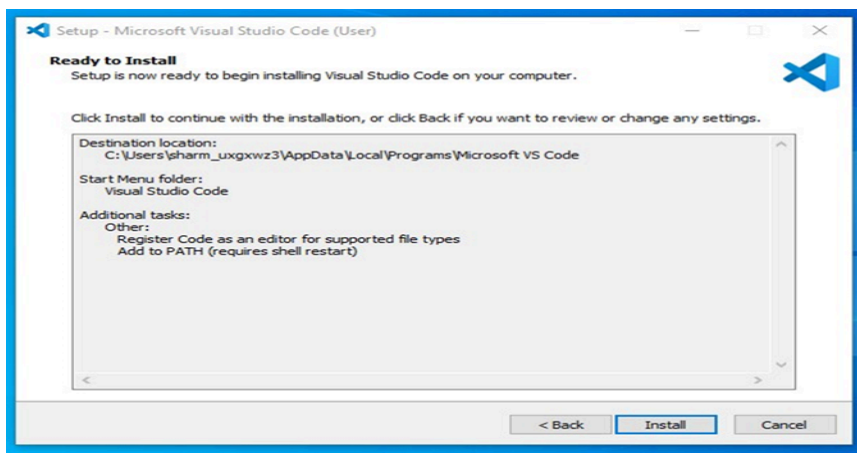
Fig 4.1.3 Step 3 of downloading

Step 8: After clicking on Install, it will take about 1 minute to install the Visual Studio Code on your device
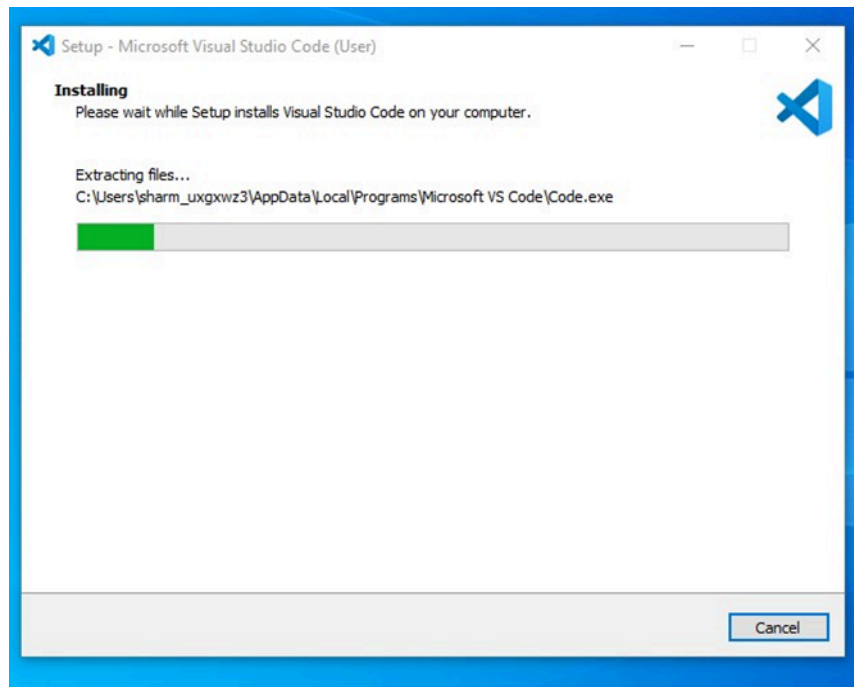
Fig4.1.4 installing of vs code

Step 9: After the Installation setup for Visual Studio Code is finished, it will show a window like this below. Tick the "Launch Visual Studio Code" checkbox and then click Next.

Fig4.1.5 finishing setup

Step 10: The Visual Studio Code window opens successfully after the previous step. Now you can create a new file in the Visual Studio Code window and choose a language of yours to begin your programming journey!
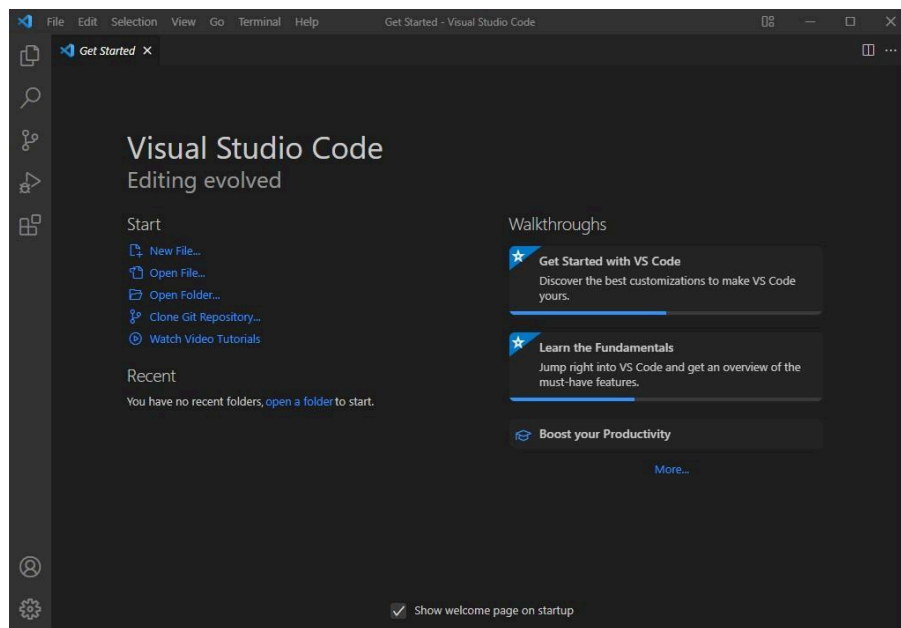
Fig4.1.6 launch of vs code

So, this is how we successfully installed **Visual Studio Code** on our Windows system.

2. XAMP control panel67

XAMPP is the most popular software package that is used to set up a PHP development environment for web services by providing all the required software components. During the process of software deployment, most of the web servers use almost similar components, so the use of **XAMPP** provides an easy transition from a local server to a live server. **XAMPP** is an **AMP** stack that stands for Cross-platform, **A**pache, **M**ySQL, **P**HP, and **Perl** with some additional administrative software tools such as PhpMyAdmin (for database access), FileZilla FTP server, Mercury mail server, and JSP Tomcat server. Other commonly known software packages like XAMPP are WAMP, LAMP, and others. The XAMPP server is used to test PHP pages. It works as a local server. It contains a MySQL database to manage or save data on a local server.

Steps to install XAMPP on Windows:

- In the web browser, visit Apache Friends and download the XAMPP installer.

Fig 4.2.1 download of XAMPP

- During the installation process, select the required components like MySQL, FileZilla FTP server, PHP, and phpMyAdmin, or leave the default options and click the **Next** button.

Fig4.2.2 download of XAMPP for Windows

- Uncheck the **Learn more about bitnami** option and click the **Next** button.
- Choose the root directory path to set up the *ht docs* folder for our applications. For example, *'C:\XAMPP'*.
- Click the **Allow access** button to allow the XAMPP modules from the Windows firewall.
- After the installation process, click the **Finish** button of the XAMPP Setup wizard.
- Now the XAMPP icon is visible on the right side of the start menu. Show or hide can be set by using the control panel by clicking on the icon.
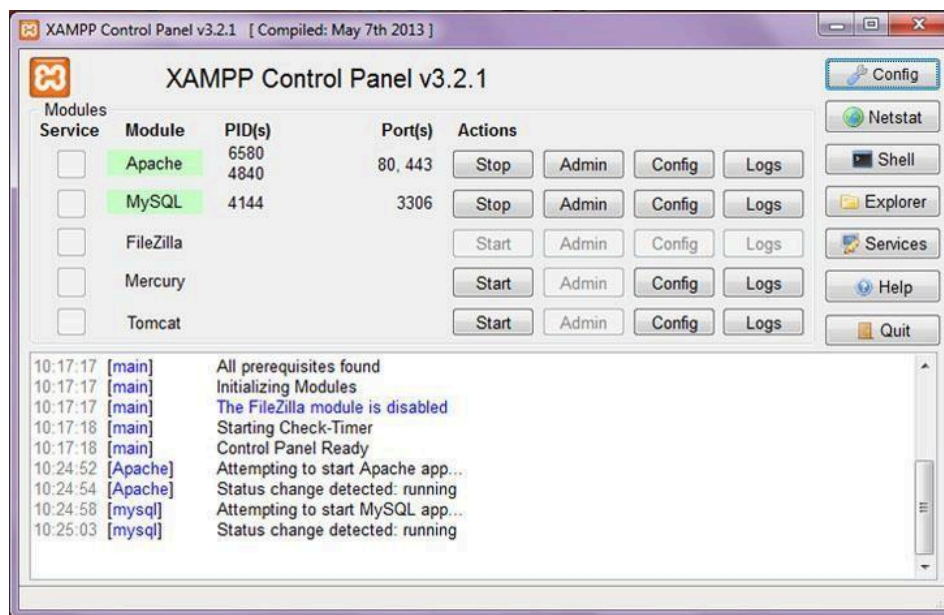- To start Apache and MySQL, just click on the **Start** button and the control panel.

Fig4.2.3 XAMPP control panel

Note: Suppose Apache is not starting, it means some other service is running at port **80.** In this case, stop the other service temporarily and restart it.

Making server request: Open your web browser and check whether the XAMPP service has been properly installed or not. Type in the URL: **http://localhost**. If you can see the default page for XAMPP, you have successfully installed your XAMPP Server

Setup PHP

PHP (Hypertext Preprocessor) is a **general-purpose programming** language developed by **Rasmus Lerdorf** in 1994 for web development. This is one of the most popular programming languages for beginners in web development because of its **simplicity**, **large community**, and **accessibility**.

Steps to set up PHP environment on a local machine: There are two ways to set up PHP on a local machine which are:

- Using all-in-one package (XAMPP & WAMP). **(recommended)**
- Manually install all the required packages (MySQL, PHP & Apache) and configure them.

  We are going to cover an **easy** and almost **error-free** method to install PHP on a local machine which is by using an all-in-one package called **XAMPP**.

4.2 Modules and their Description

- **User Registration and Authentication Module** : This module allows new users (customers, pharmacists, delivery agents) to register and existing users to log in securely. It includes password management, OTP/email verification, and role-based access control.

- **Medicine Catalog Management Module** : Enables admin/pharmacy to add, update, and delete medicine listings. It contains details like medicine name, dosage, manufacturer, price, stock availability, and expiry date.

- **Search and Filter Module** : Allows users to search medicines based on name, category, brand, or medical condition. Includes sorting (price, relevance) and filtering (availability, discount, prescription required).

- **Shopping Cart and Order Management Module** : Facilitates adding medicines to the cart, modifying quantities, and managing the order process (checkout, confirm, cancel). Also includes viewing order history and tracking current orders.

- **Prescription Upload and Verification Module** : Allows users to upload prescriptions for medicines that require a doctor's approval. Pharmacists/admins can verify prescriptions before processing the order.

- **Delivery Management Module** : Manages assignment of delivery agents, route optimization, and real-time tracking of orders. Customers can track their delivery status and estimated delivery time.

- **Customer Support and Chatbot Module** : Provides a platform for users to contact customer support via chat, email, or call. An AI chatbot can answer FAQs regarding orders, payments, and delivery.

- **Review and Feedback Module** : Allows users to rate medicines, provide feedback on service quality, and write reviews about their experiences. Helps improve service and build trust.

Chapter 5

5. Testing and Results

1. **User Registration and Login Testing**

   ○ Verified that users can successfully register, log in, and log out.

   ○ Tested for valid and invalid inputs (e.g., empty fields, wrong passwords).

   ○ Result: Successful registration and login flow with proper error handling for invalid inputs.

2. **Medicine Search and Filter Testing**

   ○ Checked that users can search for medicines by name, category, and brand.

   ○ Filter and sort functionalities were tested for accuracy.

   ○ Result: Search and filter features returned relevant medicines correctly.

3. **Cart and Order Placement Testing**

   ○ Tested adding medicines to the cart, updating quantities, and proceeding to checkout.

   ○ Verified that the order is placed correctly after payment.

   ○ Result: Orders were placed successfully, and cart updates worked as expected.

4. **Prescription Upload and Verification Testing**

   ○ Ensured that users could upload prescriptions for required medicines.

   ○ Admins/pharmacists could review and approve/reject prescriptions.

   ○ Result: Smooth upload and review process without errors.

5. **Payment Gateway Testing**

   ○ Simulated payments via credit card, debit card, UPI, and wallets.

   ○ Tested successful and failed transactions.

   ○ Result: Secure and functional payment processing with proper notifications.

6. **Order Tracking and Delivery Testing**

   ○ Verified that users can track their orders and see real-time updates.

   ○ Checked delivery assignment and status updates.

  ○ Result: Accurate order status tracking and timely delivery updates.

7. **Feedback and Review System Testing**

  ○ Tested users' ability to leave feedback and rate medicines and services.

  ○ Checked if reviews appear correctly on the website.

  ○ Result: Reviews and ratings were posted and displayed without issues.

8. **Performance and Security Testing**

  ○ Checked website performance under different load conditions (multiple users accessing at once).

  ○ Tested security aspects like data encryption, secure login, and protection from SQL injection.

  ○ Result: Website remained responsive under load and passed basic security checks.

5.1 Screenshots
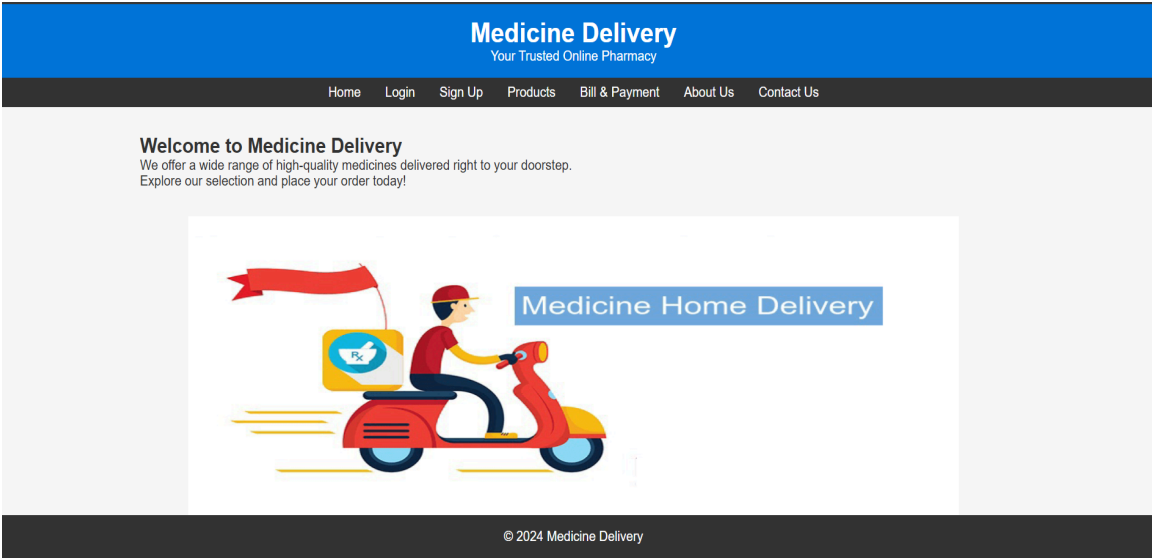
Fig 5.1.1 Home Page
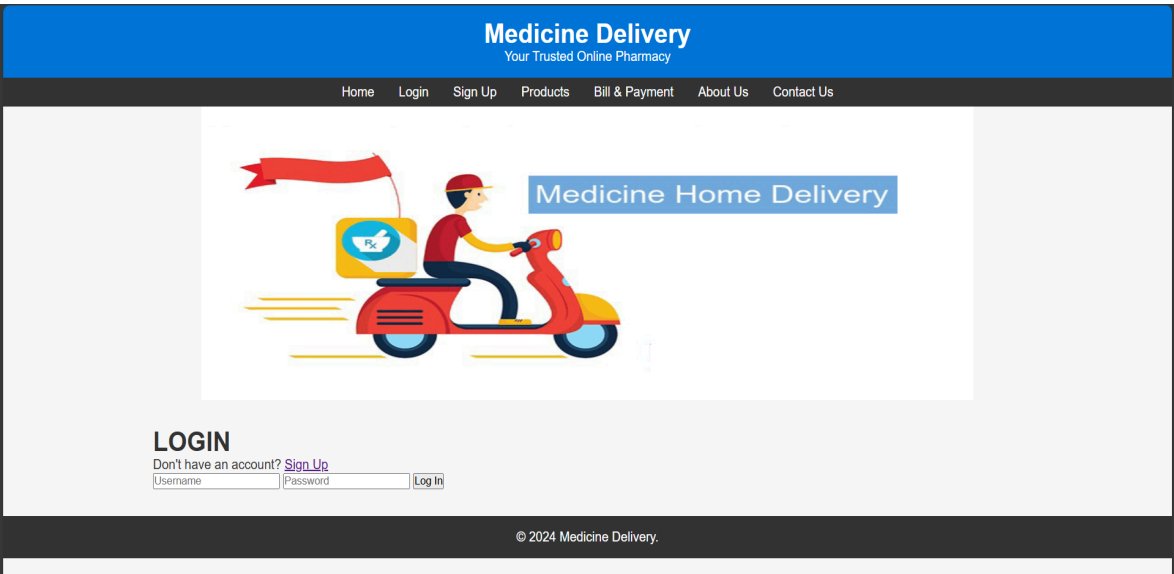
Fig 5.1.2 Login Page
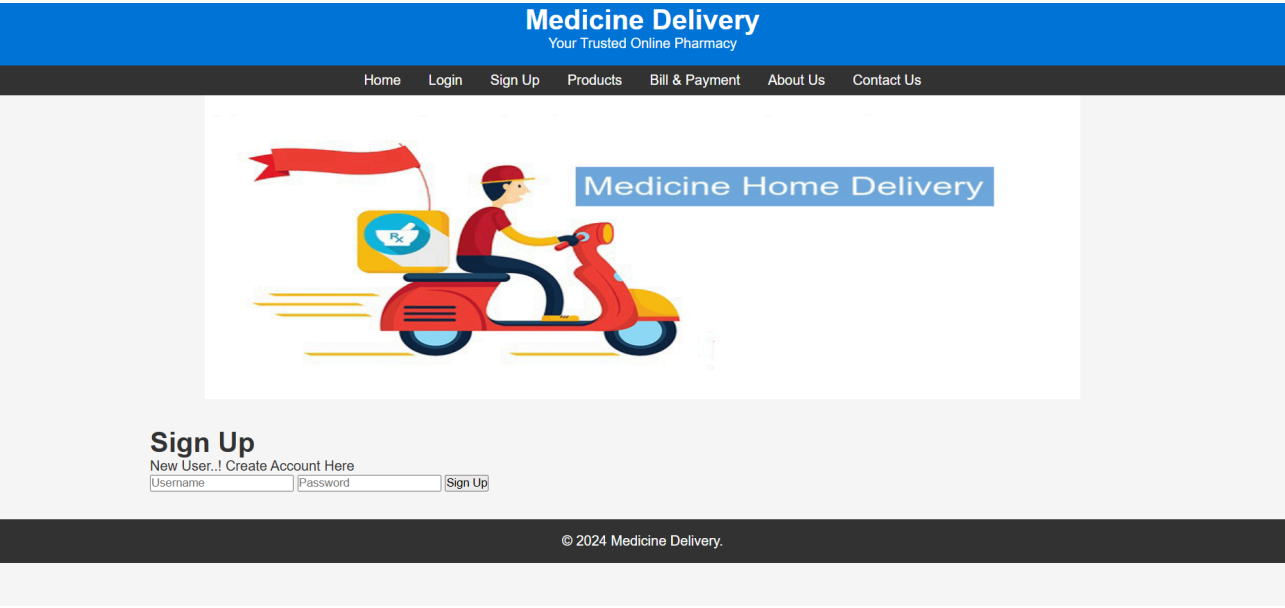
Fig 5.1.3 SignupPage
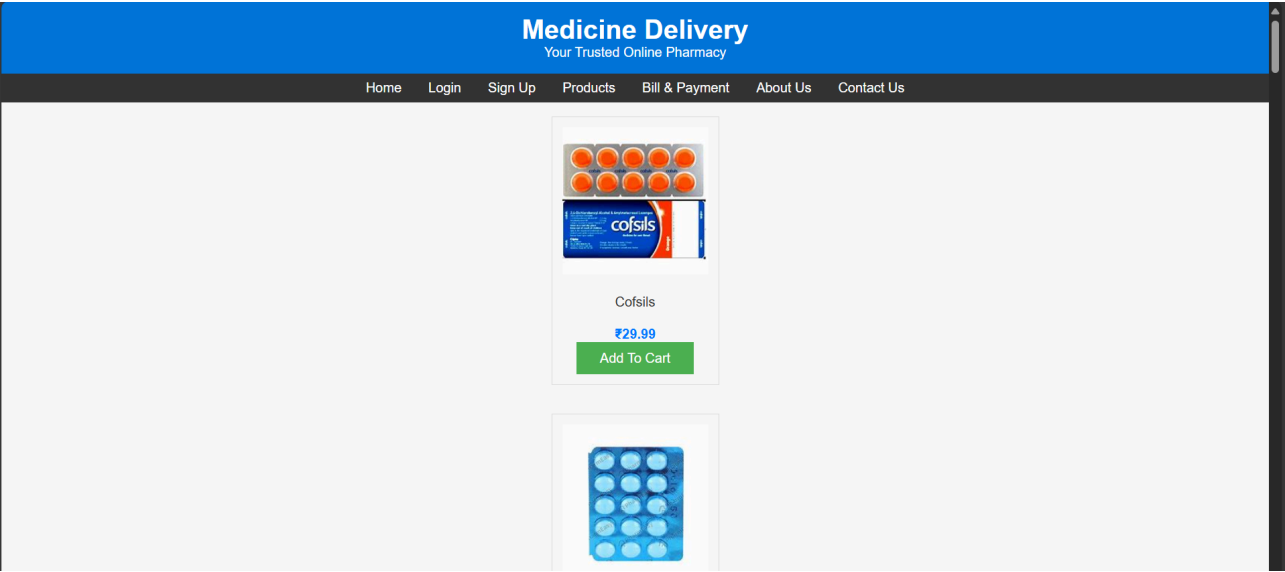
Fig 5.1.4 Products

Medicine Billing

Medicine Name:

Quantity:

Price per unit:

Delivery Address:

Payment Method:

Online Payment ▾   Place Order   Calculate Total

Total Amount:

Fig 5.1.5 Bill & Payment

ABOUT US
Welcome to Medicine Delivery! We are committed to providing timely and reliable healthcare services to our community.Our mission is to ensure that everyone has access to essential medicines, delivered right to their doorstep. Whether you need prescription medications, over-the-counter drugs, or medical supplies, we've got you covered.Feel free to explore our website and learn more about our services.

OUR SERVICES
- Prescription Medication Delivery
- Emergency Medicine Dispatch
- Healthcare Supplies

Fig 5.1.6 About page

Fig 5.1.7 Contact us page

Fig 5.1.8 Database

6 Conclusion & Future Enhancements

Conclusion:

This project successfully fulfills its primary goals by offering a functional and efficient system. It demonstrates practical implementation of the required features and provides a user-friendly interface. Overall, the system performs well and addresses the core problem effectively.

Future Enhancements:

Although the system meets current requirements, there is scope for improvement. Future enhancements may include:

- Upgrading the user interface for a better experience.
- Adding stronger security features like encryption and authentication.
- Integrating with third-party tools or APIs for extended functionality.
- Introducing AI/ML for smart recommendations and automation.
- Optimizing performance to handle more users and data.
- Including user feedback and analytics for continuous improvement.
- Developing a mobile app version for greater accessibility.

9. References

Books

- Sommerville, Ian. *Software Engineering*, 10th Edition, Pearson, 2015.
- Pressman, Roger S. *Software Engineering: A Practitioner's Approach*, 8th Edition, McGraw-Hill, 2014.

Websites

- GeeksforGeeks. "Software Engineering - Overview."
  https://www.geeksforgeeks.org/software-engineering-overview/
- TutorialsPoint. "Software Development Life Cycle (SDLC)."
  https://www.tutorialspoint.com/sdlc/index.htm

10. Appendix

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Medicine Delivery</title>
    <style>
        /* Reset some default styles */
        * {
            margin: 0;
            padding: 0;
            box-sizing: border-box;
        }

        /* Basic styling for the entire page */
        body {
            font-family: Arial, sans-serif;
            background-color: #f9f9f9;
            color: #333;
        }

        /* Header styling */
        header {
            background-color: #0074D9;
            color: #fff;
            padding: 1rem;
            text-align: center;
        }

        /* Navigation menu */
        nav {
            display: flex;
            justify-content: center;
            background-color: #333;
            padding: 0.5rem;
        }

        nav a {
            color: #fff;
            text-decoration: none;
            margin: 0 1rem;
        }
```

```
        /* Main content area */
        .container {
            max-width: 1200px;
            margin: 0 auto;
            padding: 2rem;
        }

        /* Footer styling */
        footer {
            background-color: #333;
            color: #fff;
            text-align: center;
            padding: 1rem;
        }
    </style>
</head>
<body>
    <header>
        <h1>Medicine Delivery</h1>
        <p>Your Trusted Online Pharmacy</p>
    </header>

    <nav>
        </a>
            <a href="j1.html">Home</a>
            <a href="j3.html">Login</a>
            <a href="j4.html">Sign Up</a>
            <a href="new.html">Products</a>
            <a href="j5.html">Bill & Payment</a>
            <a href="j6.html">About Us</a>
            <a href="contact us.html">Contact Us</a>

    </nav>

    <div class="container">
        <h2>Welcome to Medicine Delivery</h2>
         <p>We offer a wide range of high-quality medicines delivered right
to your doorstep.</p>
        <p>Explore our selection and place your order today!</p>
    </div>
    <style>
        img{
          display:block;
          margin:auto;
```

```
        animation: fadeIn 2s ease-in-out;
      }
      @keyframes fadeIn{
        from{
        opacity: 0;
      }
        to{
        opacity: 100;
          }
      }
      </style>
      <head>
                                                                      <img
src="https://maishacare.com/wp-content/uploads/2021/10/medicine-door-deliver
y.png"
        width="1010px" height="350px" allign="middle">
    <main>

    <footer>
        <p>&copy; 2024 Medicine Delivery</p>
    </footer>
</body>
</html>
```