SIMATS SCHOOL OF ENGINEERING

SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL

SCIENCES CHENNAI-602105

Online Medicine Store

A CAPSTONE PROJECT REPORT

Submitted in the partial fulfillment for the award of the degree of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE

Submitted by

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DECLARATION

We, Harshini, Anusri students of **Bachelor of Engineering in Computer Science Engineering**, Department of Computer Science and Engineering, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, hereby declare that the work presented in this Capstone Project Work entitled **Online Medicine store** is the outcome of our own Bonafide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics.

1. G. Harshini (192210457)
2. V. Anusri (192210670)

Date: 13/09/2024

Place: Chennai

CERTIFICATE

This is to certify that the project entitled **"Online Medicine Store"** submitted by Harshini, Anusri has been carried out under my supervision. The project has been submitted as per the requirements in the current semester of B.E Computer Science.

Teacher-in-charge

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ABSTRACT:

"Online Medicine Store" This project presents the design and implementation of an online medicine store, leveraging the power of modern web technologies and development tools such as XAMPP and Visual Studio. The system aims to streamline the process of ordering medicine from various medicine stores, enhancing convenience for users and operational efficiency for stores. The system is developed using a three-tier architecture. The front-end is designed with HTML, CSS, and JavaScript, ensuring a responsive and userfriendly interface. User interactions are managed using JavaScript, with jQuery facilitating asynchronous data exchange with the server via AJAX. The online medicine store includes features such as user registration and authentication, menu selection, order placement, and real-time order tracking. Admin functionalities allow owners to manage their medicine, view orders, and update order status.

The server-side logic is implemented using PHP, chosen for its robustness in web development and seamless integration with the MySQL database. XAMPP, an open-source cross-platform web server solution package, is employed to create a local server environment for testing and development. It integrates Apache, MySQL, PHP, and Perl, providing an all-in-one package that simplifies the setup and management of the development environment. The backend utilizes MySQL for data storage, handling user data, order details, and restaurant information. The database schema is designed to maintain data integrity and ensure efficient data retrieval and manipulation. The system's architecture and implementation are discussed in detail, highlighting the integration of various technologies and tools to achieve a cohesive and efficient solution. Performance considerations, security measures, and future enhancements are also addressed to ensure scalability and reliability.

INTRODUCTION:

Online medical stores have significantly transformed the way individuals access healthcare products and services. By leveraging digital technology, these platforms provide a convenient alternative to traditional pharmacies, allowing users to order medications, health supplements, and personal care items from the comfort of their homes. This shift not only saves time but also reduces the need for travel, making healthcare more accessible, especially for those with mobility challenges or those residing in remote areas.

These online pharmacies offer a wide range of products, often featuring a more extensive selection than physical stores. This includes both prescription and over-the-counter medications, as well as specialized health products that may not be readily available locally. The convenience of 24/7 availability and home delivery enhances the overall customer experience, providing a seamless and efficient way to manage health and wellness needs.

However, it is crucial to choose an online medical store that adheres to proper regulatory standards and licensing to ensure the authenticity and safety of the products. Reputable online pharmacies require valid prescriptions for medications and offer secure payment methods and customer support. By prioritizing these factors, consumers can benefit from the accessibility and convenience of online medical stores while maintaining confidence in the quality and reliability of their healthcare purchases.

PROJECT DESCRIPTION

"Online Medicine Store" is a comprehensive mobile, web application developed to streamline order management. The application includes:

Proposed Method :

Frontend Development: Utilizing Visual Studio for designing responsive and intuitive user interfaces.

Backend Development: Using XAMPP stack (Apache, MySQL, PHP) to handle server-side scripting, database management via phpMyAdmin, and ensuring secure data storage and retrieval.

About my project Purpose and Scope

The primary objective of "Online Medicine Store " is to facilitate a seamless, efficient, and convenient process for customers to order medicine from their preferred localities and to create a mutually beneficial platform that enhances customer satisfaction through convenience and accessibility, while simultaneously driving business growth and efficiency for Medicine service providers.

Features and Functionality:

User Interface

- **User Registration and Login:** Users can create accounts or log in to place orders.
- **Products Display:** A visually appealing page that showcases medicine with descriptions, prices, and images.
- **Search and Filters:** Options to search for specific dishes or filter by categories (e.g. disease, tablet, ointment, injection, price, etc.).

Ordering Process

- **Add to Cart:** Users can select items and add them to their shopping cart.
- **Order Customization:** Options for customizing orders(adding more items, remove).
- **Checkout Process:** A smooth and secure checkout process, including order review and total cost.

Payment Options

- Multiple Payment Methods: Support for credit/debit cards, digital wallets, cash on delivery, etc.

- Secure Transactions: Encryption and security measures to protect payment information.

Order Tracking

- **Real-time Order Tracking:** Users can track the status of their orders in real time.
- **Estimated Delivery Time:** An estimate of when the order will arrive based on the medical store location, order availability and order size.

User Account Management

- **Order History:** Users can view their past orders and reorder easily.
- **Profile Management:** Options to update personal information, payment methods, and addresses.

Reviews and Ratings

- **Feedback System:** Users can leave reviews and ratings for medical stores and delivery agents.
- **Ratings Display:** Average ratings and feedback for medical stores to help users make informed choices.

PROBLEM DESCRIPTION

While online medical stores offer significant advantages in convenience and accessibility, they also face several challenges and issues that can impact both consumers and the integrity of the service. Here's a description of some key problems associated with online medical stores:

1. Regulatory Compliance and Safety Concerns: Ensuring that online medical stores comply with health regulations and standards is a major challenge. There is a risk of counterfeit or substandard medications being sold if the store is not properly regulated or if it operates without necessary licensing. Consumers may unknowingly purchase drugs that are ineffective or harmful, posing serious health risks.

2. Privacy and Data Security Issues: Online medical stores handle sensitive personal and health information, making them targets for cyberattacks and data breaches. Protecting this information from unauthorized access is crucial, as breaches can lead to identity theft, fraud, and a loss of consumer trust. Ensuring robust cybersecurity measures and data protection protocols is essential for maintaining user confidence.

3. Prescription Verification and Misuse: The verification process for prescriptions can be problematic. Some online pharmacies may not enforce strict prescription checks, leading to the potential misuse of medications. Additionally, ensuring that customers provide valid prescriptions and preventing unauthorized or fraudulent orders are ongoing concerns.

4. Delivery and Logistics Challenges: Efficient and timely delivery of medications is crucial for maintaining customer satisfaction and treatment efficacy. Problems such as delayed shipments, incorrect orders, or issues with packaging can impact the quality of service and the health outcomes for users. Managing logistics and ensuring reliable delivery systems are essential to address these challenges.

5. Customer Support and Service Issues: Providing effective customer support can be challenging for online medical stores, especially given the volume of inquiries and the need for specialized knowledge. Inadequate customer service can lead to unresolved issues, dissatisfaction, and a negative perception of the store's reliability and professionalism.

TOOL DESCRIPTION:

Hardware and Software Tools

To develop and deploy the Order management web application, the following hardware and software tools were utilized:

Hardware Specifications

- **Laptop Model**: ASUS ROG Strix
- **Graphics Card**: NVIDIA GeForce RTX 3060, 4GB
- **Storage**: 1TB SSD
- **RAM**: 16GB
- **Processor**: AMD Ryzen 7 6800H

The ASUS ROG Strix laptop with its high-performance specifications provided an excellent environment for developing and testing the web application. The NVIDIA GeForce RTX 3060 graphics card ensured smooth rendering of graphics and multimedia content, enhancing the development experience, especially when dealing with high-resolution recipe images and user interface design. The 1TB SSD facilitated fast data read/write operations, significantly reducing load times for development tools and ensuring rapid access to project files. With 16GB of RAM, the laptop efficiently handled multiple development tools running concurrently, supporting a seamless multitasking environment. The AMD Ryzen 7 6800H processor, known for its powerful performance and energy efficiency, enabled quick compilation and execution of code, speeding up the development cycle.

Software Tools

Visual Studio Code: An integrated development environment (IDE) used for writing and debugging code. Its extensions and integrated terminal enhanced the coding experience.

XAMPP: A free and open-source cross-platform web server solution stack package developed by Apache Friends. It provided the necessary Apache, MySQL, PHP, and Perl support for local development and testing.

phpMyAdmin: A free software tool written in PHP, intended to handle the administration of MySQL over the web. phpMyAdmin was used for database management, allowing for easy handling of the MySQL database used in the application.
GitHub: Used for version control and collaborative development. The repository hosted the project's source code, enabling team collaboration and version tracking.

Google Chrome: The primary web browser used for testing and debugging the web application. Developer tools in Chrome facilitated real-time inspection and modification of the front-end code.

The combination of powerful hardware and a robust set of development tools provided a conducive environment for the efficient development, testing, and deployment of the recipe management web application.

OPERATIONS

The Medicine Order Application provides various operations for both administrators and users to manage orders effectively and ensure a smooth user experience. Below are the detailed operations based on the provided code and functionalities of the application:

Administrator Operations:

User Management

- **Registration and Verification**: Oversee the registration process for both customers and stores, ensuring that all accounts are verified and legitimate.
- **Account Management**: Manage user accounts, including enabling, disabling, or deleting accounts as necessary.

Menu and Medical Store Management

- **Menu Configuration**: Add, edit, or remove items for store, ensuring that descriptions, prices, and images are up to date.
- **Onboarding**: Manage the onboarding process for new stores, including setting up their profiles, items, and delivery options.

Order Management

- **Order Oversight**: Monitor incoming orders to ensure they are processed efficiently and troubleshoot any issues that may arise.
- **Order History Tracking**: Maintain a comprehensive record of orders for both customers and Medicine Store for reference and analysis.

Payment Processing

- **Payment Gateway Management**: Ensure that payment gateways are functioning correctly and securely, monitoring transactions for any discrepancies or fraud.
- **Refund Management**: Handle refund requests and disputes, ensuring timely and fair resolution for customers.

5. Customer Support Management

- **Support Coordination**: Oversee customer support operations, ensuring that inquiries and issues are addressed promptly and effectively.
- **Feedback and Complaints Management**: Monitor and respond to customer feedback and complaints, implementing necessary improvements based on insights received.

6. Analytics and Reporting

- **Performance Monitoring**: Analyze system performance metrics, including order volume, customer engagement, and restaurant performance.

- **Reporting**: Generate reports on sales, user activity, and customer satisfaction to inform business decisions and strategies.

7. Promotions and Marketing

- **Promotional Campaign Management**: Create and manage promotional campaigns, discounts, and loyalty programs to attract and retain customers.
- **Marketing Collaboration**: Collaborate with marketing teams to implement strategies for increasing visibility and user engagement on the platform.

8. System Maintenance and Security

- **Regular Updates**: Ensure that the software and platform are regularly updated to fix bugs, enhance features, and maintain security.
- **Security Management**: Monitor the system for security vulnerabilities, implement measures to protect user data, and conduct regular audits.

9. Compliance and Regulations

- **Regulatory Compliance**: Ensure that the platform complies with local laws and regulations related to safety, data protection, and e-commerce.
- **Policy Management**: Develop and update policies related to user conduct, refunds, and privacy to maintain transparency and trust.

By efficiently managing these operations, administrators play a vital role in ensuring the success and reliability of the online Medicine ordering system, ultimately leading to a better experience for customers and restaurants alike.

FUNCTIONALITIES:

To develop the Medicine Order Application, we will divide the project into distinct modules, each responsible for specific functionalities. By creating individual functions for every operation and unifying them, we can ensure modularity, maintainability, and scalability.

Modules and Functionalities

1.User Management Module

- **Registration and Login**: Allows users to create accounts, log in, and manage their profiles.
- **Account Management**: Enables users to update personal information, reset passwords, and manage preferences.

2. Management Module

- **Items Display**: Provides a detailed view of product availability, including item names, descriptions, prices, and images.
- **Products Updates**: Allows stores to add, edit, or remove menu items and manage item availability.

3. Order Management Module

- **Order Placement**: Enables customers to select items, customize orders, and place them through the system.
- **Order Tracking**: Provides real-time tracking of order status from preparation to delivery.
- **Order History**: Allows users to view their past orders and reorder items easily.

4. Payment Processing Module

- **Payment Gateway Integration**: Supports various payment methods, including credit/debit cards, digital wallets, and cash on delivery.
- **Transaction Management**: Handles payment processing, refunds, and transaction history.

5. Delivery Management Module

- **Delivery Scheduling**: Manages delivery time slots and scheduling.
- **Delivery Tracking**: Allows customers to track the delivery status and estimated arrival time.
- **Delivery Personnel Management**: Facilitates coordination with delivery staff and assigns delivery tasks.

6. Customer Support Module

- **Support Ticketing**: Provides a system for customers to submit support tickets or inquiries.

- **Live Chat and Messaging**: Enables real-time communication between customers and support staff.
- **Feedback and Reviews**: Allows users to leave reviews and rate their experience with restaurants and the ordering system.

7. Analytics and Reporting Module

- **Sales Reporting**: Generates reports on sales, revenue, and order volume.
- **Customer Insights**: Analyzes customer behavior, preferences, and order trends.
- **Performance Metrics**: Provides insights into system performance, restaurant performance, and delivery efficiency.

8. Promotions and Marketing Module

- **Discounts and Coupons**: Allows the creation and management of promotional codes, discounts, and special offers.
- **Loyalty Programs**: Manages customer loyalty programs and rewards.
- **Campaign Management**: Supports marketing campaigns and promotional activities to attract and retain customers.

9. Inventory Management Module

- **Stock Tracking**: Monitors inventory levels and updates stock status based on orders.
- **Supplier Management**: Manages relationships with suppliers and tracks inventory orders.

10. System Maintenance and Security Module

- **Software Updates**: Handles regular updates and maintenance of the system to fix bugs and enhance features.
- **Security Management**: Implements security measures to protect user data and prevent unauthorized access.

11. Compliance and Regulatory Module

- **Regulatory Compliance**: Ensures adherence to local food safety and data protection regulations.
- **Policy Management**: Manages platform policies related to user conduct, privacy, and refunds.

Integration of Functions

By developing these modules and their respective functions independently, we can then unify them to form the complete software. Each module can interact with others through defined interfaces, ensuring smooth data flow and cohesive operation.

1.User Management and Authentication

Integration: The user management module integrates with the authentication system to manage user registration, login, and profile updates.

- **Example**: When a user registers, their information is securely stored in the database. Upon logging in, the system checks their credentials against the stored data and allows access to the ordering system.

2. Menu Management and Order Placement

Integration: The menu management module connects with the order placement function to ensure that users can see current menu items and their availability.

- **Example**: When a user browses the menu, the system fetches real-time data from the menu management module, displaying available dishes and their prices. If a dish is unavailable, it is either hidden or marked as such.

3. Order Management and Payment Processing

Integration: The order management module works with the payment processing system to handle transactions securely once an order is placed.

- **Example**: After a user selects items and places an order, the order management module generates an order ID, which is sent to the payment processing module. The payment is processed, and upon successful payment, the order status is updated to "confirmed."

4. Delivery Management and Order Tracking

Integration: The delivery management module integrates with order tracking to provide realtime updates to users about their order's status.

- **Example**: When the store marks an order as "out for delivery," the delivery management module updates the order status, and the customer receives a notification with tracking information, such as the delivery person's location and estimated arrival time.

5. Customer Support and Feedback

Integration: The customer support module links with user accounts and order history to provide personalized assistance.

- **Example**: If a user has a question about an order, they can submit a support ticket. The support staff can access the user's order history and details, enabling them to address the inquiry more effectively.

6. Analytics and Reporting with Promotions

Integration: The analytics module can be linked with the promotions module to assess the effectiveness of marketing campaigns.

- **Example**: After running a promotional campaign offering discounts on specific items, the analytics module can track sales data to determine the campaign's success by analyzing order volumes and customer engagement during the promotion.

7. Inventory Management and Menu Management

Integration: The inventory management system integrates with the menu management module to reflect real-time stock levels.

• **Example**: If a restaurant runs low on a particular dish, the inventory management module alerts the restaurant staff, prompting them to update the menu and mark the dish as unavailable.

8. Security and Compliance

Integration: The security module works in conjunction with the compliance module to ensure user data is protected according to regulations.

By structuring the operations and functionalities around these modules, the Food Recipe Application ensures a seamless and efficient user experience for both administrators and users.

IMPLEMENTATION/CODING:

Regiser code

```php
<?php
include 'db_connection.php'; // Connect to the database
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Online Medical Store - Home</title>
    <link rel="stylesheet" href="styles.css">
</head>
<body>
    <header>
        <div class="header-container">
            <h1>Online Medical Store</h1>
            <nav>
                <a href="index.php">Home</a>
                <a href="products.php">Product List</a>
```
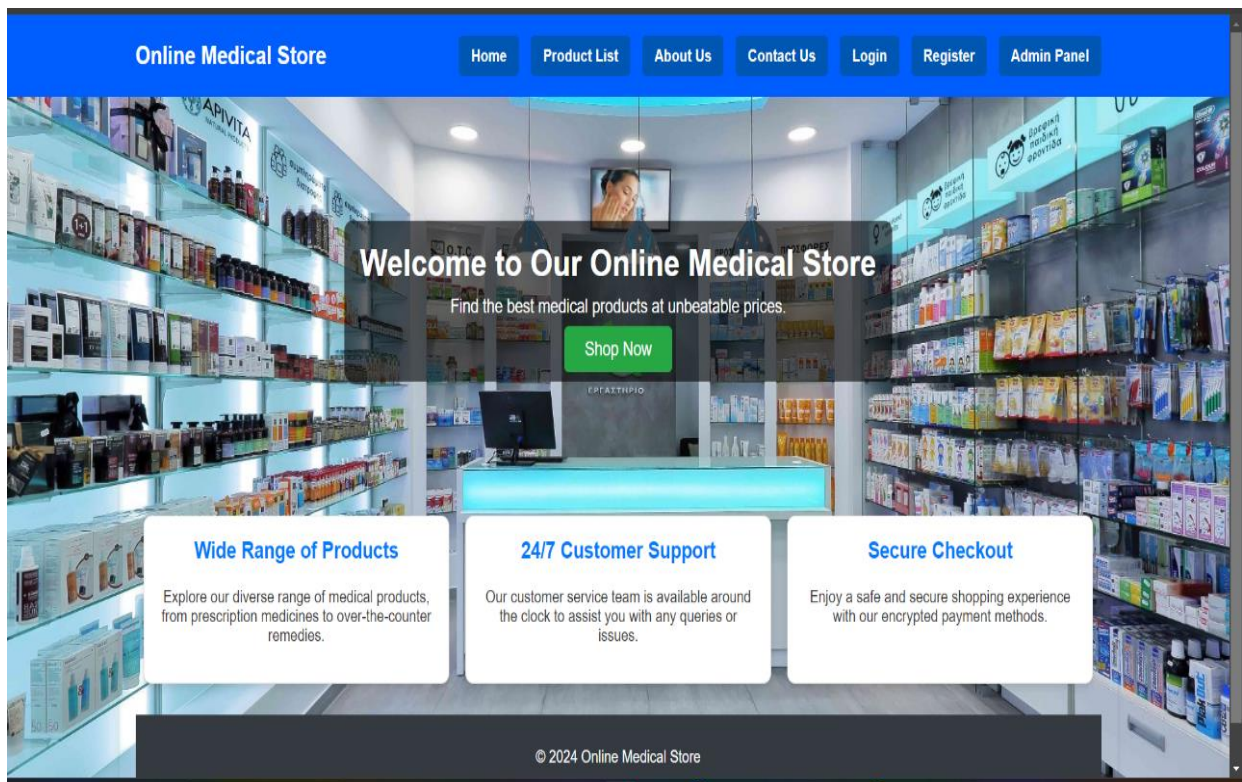
```html
            <a href="about.php">About Us</a>

            <a href="contact.php">Contact Us</a>

            <a href="login.php">Login</a>

            <a href="register.php">Register</a>

            <a href="admin-login.php">Admin Panel</a>

        </nav>

    </div>

  </header>


  <main>

    <section class="hero">

      <div class="hero-content">

        <h2>Welcome to Our Online Medical Store</h2>

        <p>Find the best medical products at unbeatable prices.</p>

        <a href="products.php" class="cta-button">Shop Now</a>

      </div>

    </section>


    <section class="features">

      <div class="feature">

        <h3>Wide Range of Products</h3>

        <p>Explore our diverse range of medical products, from prescription medicines to over-
the-counter remedies.</p>

      </div>

      <div class="feature">

        <h3>24/7 Customer Support</h3>

        <p>Our customer service team is available around the clock to assist you with any
queries or issues.</p>

      </div>

      <div class="feature">

        <h3>Secure Checkout</h3>
```

```
        <p>Enjoy a safe and secure shopping experience with our encrypted payment
methods.</p>

        </div>

    </section>

  <footer>

    <p>&copy; 2024 Online Medical Store</p>

  </footer>


</body>

</html>
```

RESULT

HOME PAGE:

LOGIN PAGE:

REGISTER PAGE:

PRODUCTS PAGE:
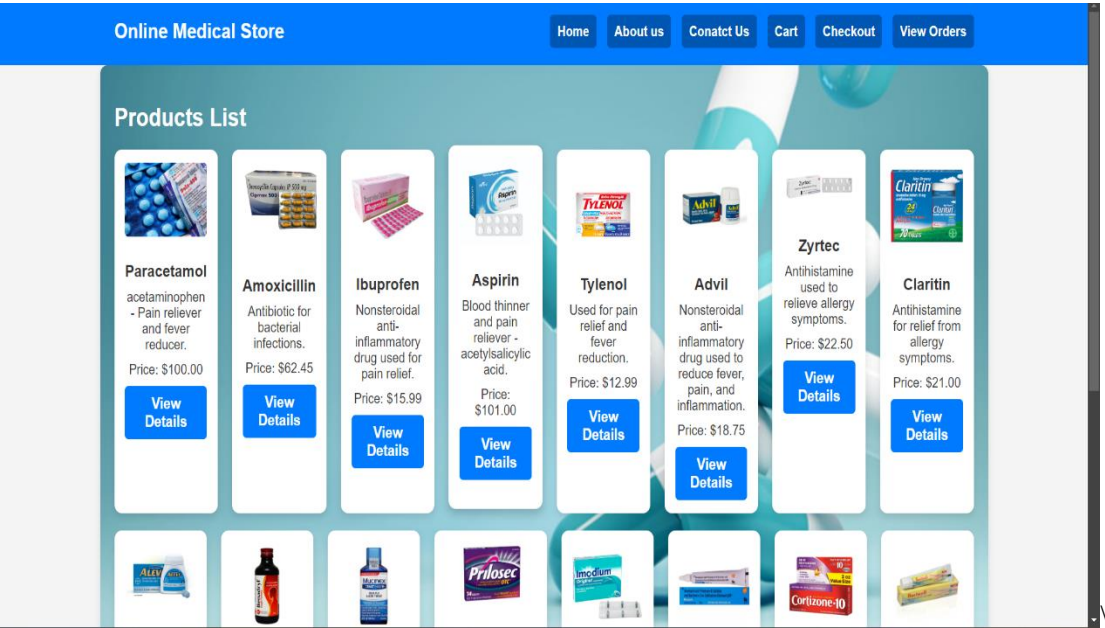
CART PAGE:
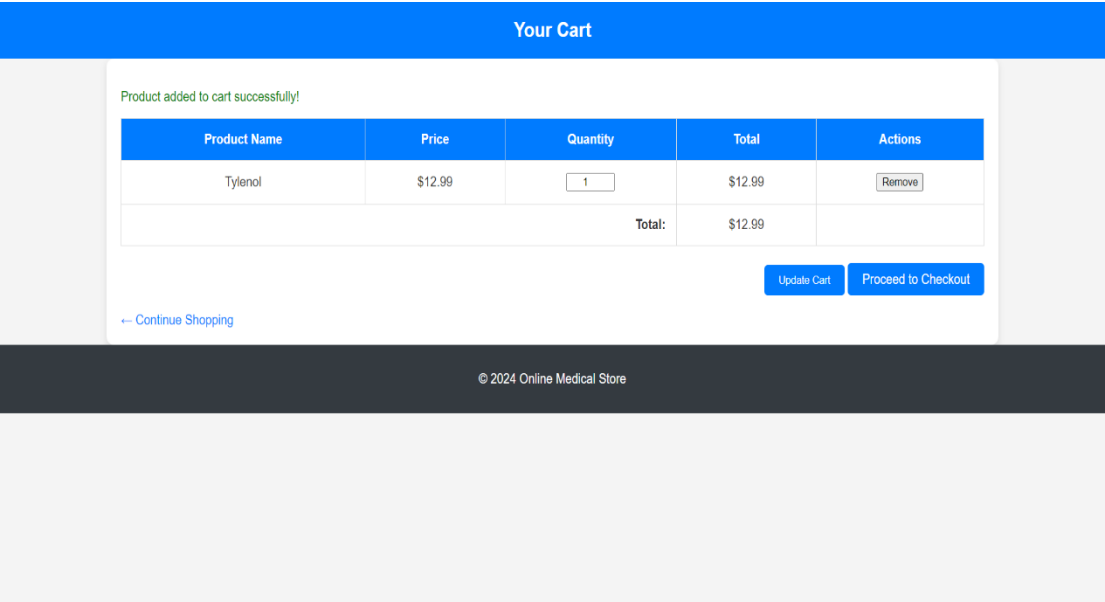
CHECKOUT PAGE:

CONFIRMATION PAGE:

ABOUT US PAGE:
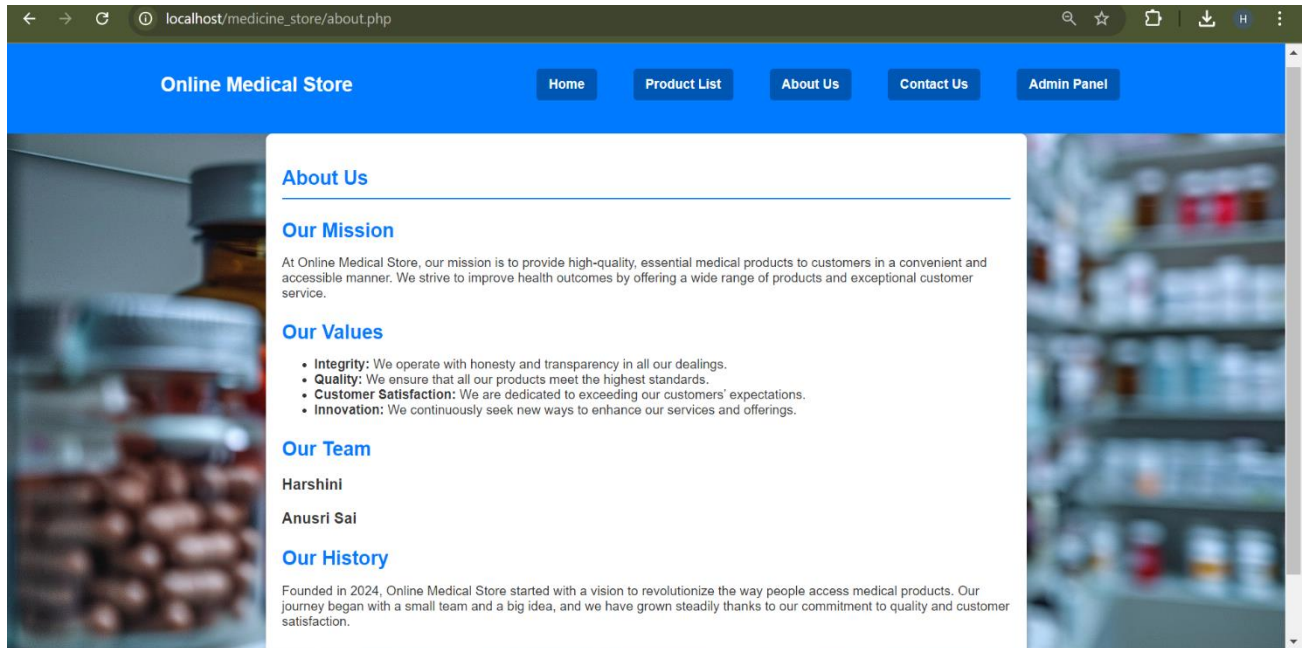
CONTACT US PAGE:
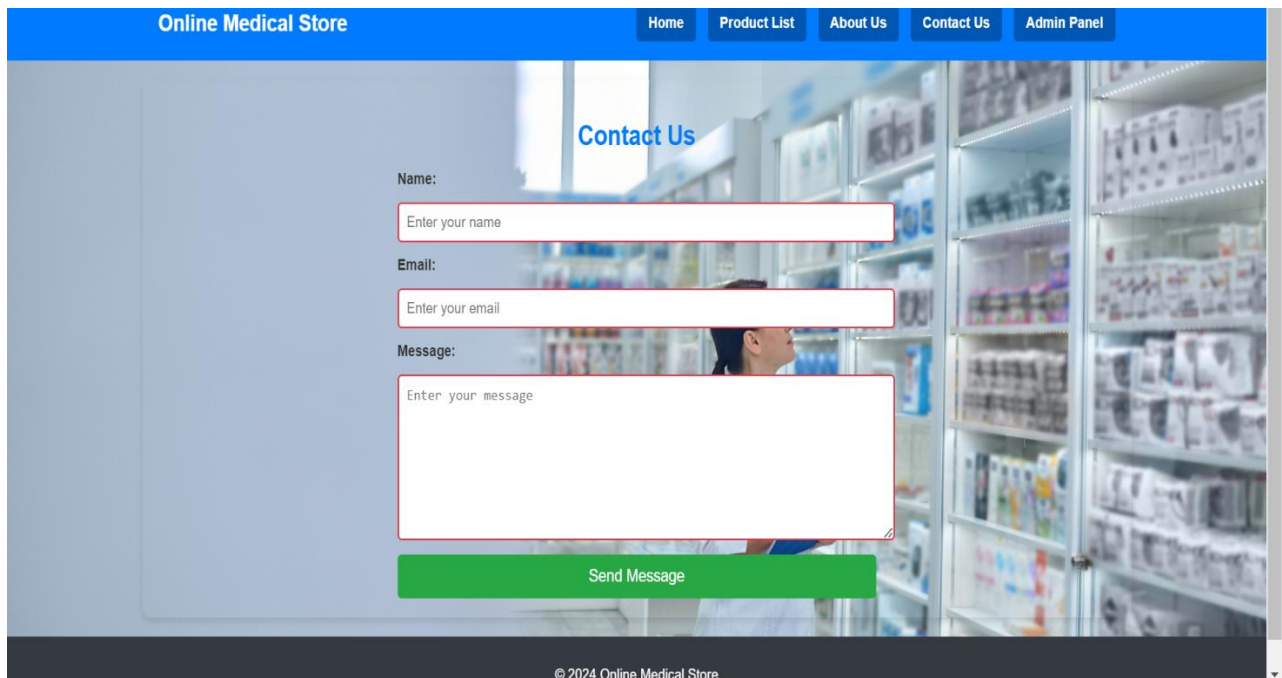
CONCLUSION:

In conclusion, online medical stores represent a significant advancement in the accessibility and convenience of healthcare, offering a valuable alternative to traditional pharmacies. They provide users with the ability to access a wide range of medications and health products from the comfort of their homes, often with the added benefits of competitive pricing and home delivery. Despite these advantages, it is crucial for both consumers and providers to remain vigilant about potential challenges, such as regulatory compliance, prescription verification, and data security.

To ensure the safe and effective use of online pharmacies, consumers should prioritize choosing licensed and reputable platforms that adhere to rigorous standards and offer secure transactions. For operators, maintaining high standards of authenticity, privacy, and regulatory adherence is essential for building trust and ensuring the continued growth of this sector. By addressing these concerns proactively, the online medical store industry can continue to thrive and provide valuable healthcare solutions while safeguarding the well-being of its users.9.1 Future Enhancements

References:

1. A Research Paper On Website Development Optimization Using XAMPP/PHP. International Journal of Advanced Research in Computer Science. May/Jun2017, Vol. 8 Issue 5, p1231-1235. 5p.

2. Bessel, T., Silagy, C., Anderson, J., Hiller, J., & Sansom, L. (2002). Quality of global e-pharmacies: can we safeguard consumers? European Journal of Clinical Pharmacology, 58(9), 567–572. doi:10.1007/s00228-002-0519-5.

3. Brijnath, B. (2012). Pills, pluralism, risk and citizenship: Theorizing e-pharmacies. Bio Societies, 7(3), 294–307. doi:10.1057/biosoc.2012.11.

4. Web Application for Online Pharmacy Ashita S. Patil1, Rutuja S. Patil2, Snehal P. More3, Sonali S.

5. Sankpal4. International Research Journal of Engineering and Technology (IRJET), Volume: 06 Issue: 04 | Apr 2019

6. Online Medical Store Finding And Availability Of Medicine P.Udith Rao Mr. K. Logu European Journal of Molecular & Clinical Medicine, 2020, Volume.

7, Issue 3, Pages 2220-2226. 7. Kapil Sharma, Rinku Sharma, Online Medicines and Medical Products Shopping- A Brief Study. International Journal of Management and Applied Science, ISSN: 2394-7926 Volume-2, Issue-2, Feb.- 2016.

8. Quality of global e-pharmacies: can we safeguard consumers? Tracey L. Bessell Æ Chris A. Silagy Jeremy N. Anderson Æ Janet E. Hiller Lloyd N. Sansom. Received: 21 May 2002 /Accepted: 27 August 2002 / Published online: 29 October 2002. DOI 10.1007/s00228-002-0519-5.

9. Satheesh G, Puthean S, Chaudhary V. E-pharmacies in India: Can they improve the pharmaceutical service delivery? J Glob Health. 2019;10(1):010301. doi:10.7189/jogh.10.010302. www.irjmets.com @International Research Journal of Modernization in Engineering, Technology and Science [6]

10. Health ministry issues draft rules to facilitate sales of drugs online, Laxmi Yadav, Mumbai, Wednesday, October 4, 2017, 08:00 Hrs. [IST].