ABSTRACT

"Shoes Store" is a simple platform that allows customers to purchase shoes easily online. It is easy to use where buyers can explore a variety of shoes. Each shoe is priced at 5000 NRS. Each purchase is securely processed, ensuring customer privacy by displaying only essential order details like name, item, and a payment method, keeping other details hidden.

The project uses modern tools like Laravel for the back-end, My SQL for storing data, and front-end technologies Tailwind CSS. Payments are processed securely through eSewa.

Some challenges faced during development were handling data encryption and verifying payments with eSewa, as there were not many resources available for Laravel. These issues were solved by researching online and using ChatGPT for help.

Keywords: Laravel, My SQL, eSewa Payments, Easy to Use, Privacy.

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Yours sincerely,

Dipesh Kumar Shrestha

TABLE OF CONTENT

Chapter 1: Introduction

1.1 Introduction to E-Commerce

E-commerce, or electronic commerce, refers to the buying and selling of goods and services through online platforms, leveraging the internet and digital technologies. It has revolutionized how businesses operate by enabling seamless transactions across geographic boundaries. Customers can access a wide range of products and services, such as clothing, accessories, electronics, and financial services, using devices like computers, tablets, and smartphones.

E-commerce is categorized into the following types:

- **Business-to-Business (B2B):** Transactions between businesses.
- **Business-to-Consumer (B2C):** Direct sales from businesses to customers.
- **Consumer-to-Business (C2B):** Consumers offer products, services to businesses.
- **Consumer-to-Consumer (C2C):** Transactions between individuals.

1.2 Introduction to MIS

Management Information Systems (MIS) is an organized framework combining processes, technology, and people to provide relevant and timely information to support decision-making and manage organizational operations effectively. MIS serves as a bridge between data and decision-making, ensuring managers have the insights required to lead businesses strategically.

MIS consists of three key components:

1.2.1 Management

Management involves the planning, organization, control, and administration of a business's activities. It operates across three levels:

- **Top Management:** Focuses on long-term strategic planning.

- **Middle Management:** Concentrates on execution and control of plans.
- **Lower Management:** Deals with day-to-day administration and operational tasks.

1.2.2 Information

Information refers to processed data that is meaningful and actionable. For instance, sales figures recorded over a week can be processed into a trend report, helping managers make informed decisions. MIS transforms raw data into organized formats such as charts, tables, or dashboards for easier understanding.

1.2.3 System

A system is an interconnected set of components designed to collect, process, store, and disseminate information. MIS systems include input (data collection), processing (analysis), output (reports), and feedback mechanisms to ensure continuous improvement.

Thus, MIS processes data to provide accurate and timely information, aiding management in performing its functions effectively. The key components of a typical MIS are:

- **People:** people who use the information system
- **Data:** the data that the information system records
- **Business Procedures:** procedures put in place on how to record, store and analyze data
- **Hardware:** these include servers, workstations, networking equipment, printers, etc.
- **Software:** these are programs used to handle the data. These include programs such as spreadsheet programs, database software, etc.

1.3 Introduction to Platform

"Shoes Store" is a simple and user-friendly e-commerce platform designed to help customers explore and purchase high-quality footwear. The platform provides a smooth

and enjoyable shopping experience, letting customers explore different styles and choose the perfect shoes.

"Shoes Store" allows customers to choose their preferred shoe styles, with each pair priced at 5000 NRS. It ensures privacy by displaying only essential details, such as order summary and customer name, shoes name, shoes price, while securely handling sensitive information.

Traditional shopping experiences can be time-consuming and lack the convenience modern buyers expect. **"Shoes Store"** addresses the challenges with an efficient and automated process that ensures smooth transactions, real-time inventory updates, and an intuitive user interface. It combines modern technology with a thoughtful design to make supporting others more meaningful and enjoyable.

Chapter 2: Planning

2.1 Introduction

The success of any platform is determined by how effectively it meets its purpose and delivers value to its users. For "Shoes Store," the key measure of success is its ability to offer a smooth shopping experience and deliver quality footwear that meet customer expectations. To achieve this, it requires to have a clear plan with well-defined goals. This ensures that the platform's development is focused, efficient, and able to address the needs of its users.

2.2 The Planning Process

The planning process for **"Shoes Store"** involved six important steps, each designed to identify opportunities, validating ideas, and ensuring the platform delivers an exceptional user experience.

1. **Identify the Opportunity**

   The first step was recognizing the need for a user-friendly online platform to purchase shoes. Traditional shopping methods can be time-consuming and inconvenient. **"Shoes Store"** addresses this by offering a seamless way for customers to explore and buy footwear from the comfort of their homes.

2. **Validate the Opportunity**

   After identifying the need, the next step was to confirm the idea's viability. This involved analyzing the market to ensure demand for an online shoe store. Researched showed that customers value convenience, a wide selection of styles, and a reliable shopping experience.

3. **Define the Features**

   Once the idea was validated, the focus shifted to defining the platform's features. This included creating a product catalog with various shoe styles and sizes, integrating secure payment options, and ensuring a simple checkout process

4. **Design the User Experience**

   To make the platform intuitive and engaging, the design emphasized easy navigation, clear product displays, and a straightforward purchases process. The goal was to provide a smooth shopping experience, encouraging repeat visits and customer loyalty.

5. **Implement and Launch**

   With the design finalized, development began using modern technologies such as Laravel, MySQL and Tailwind CSS. The platform's core functionalities were implemented, including payment integration.

6. **Evaluate and Improve**

   Continuous improvement is crucial for long-time success. The platform is monitored for performance, and user feedback is gathered to identify areas for enhancement. Planned future updates include personalized recommendations, live chat support, and additional payment methods to make the platform more versatile and user-friendly.

2.3 Budget

Table 2.1: Budget of "Shoes Store"

SN	Name	Pricing	Duration
1.	Free Domain (. com.np)	Free	Lifetime
2.	Top Level Domain (.com)	Rs. 1200	Yearly renew
3.	Web Cloud Hosting	Rs. 8000 (Budget will increase during use of resources)	Yearly renew
4.	Maintenance	Rs. 800 to 1000/hours	Hour / Monthly

Administrator owners can choose any domain free and top-level domain as their own requirement. For Nepal users (. com.np) domain is free for business.

2.4 Gantt chart

Description	Start Date	End Date	1	2	3	4	5	6	7	8	9	Status
Planning	24-Jul	30-Jul										Complete
Analysis	31-Jul	3-Aug										Complete
Design	4-Aug	25-Aug										Complete
Database Design	26-Aug	19-Sep										Complete
Coding	26-Aug	26-Oct										Complete
Payment Gateway	28-Oct	2-Nov										Complete
Testing	5-Nov	12-Nov										Complete
Documentation	24-Jul	17-Nov										Complete

Figure 2.1: Gantt Chart of "Shoes Store"

2.5 Feasibility Analysis

The feasibility analysis helps determine if **"Shoes Store"** is practical and worth pursuing by examining key aspects:

1. **Market Viability**

   This step evaluates the demand for an online shoe store. The analysis shows a growing interest in convenient online shopping, particularly for footwear, and identifies potential competitors to understand customer expectations.

2. **Financial Viability**

   It assesses the costs of developing, hosting, and maintaining the platform. The goal is to keep expenses low while planning for long-term growth and potential revenue streams.

3. **Technical Feasibility**

   This part reviews the tools and resources needed, such as Laravel for the back-end, MySQL for the database, and TailwindCSS for the front-end.

4. **Operational Feasibility**

   The analysis ensures that the platform can operate efficiently with minimal resources. The focus is on creating a scalable and streamlined system that can handle updates and future enhancements.

5. **Security Feasibility**

   This step examines the platform’s ability to protect customer data and secure transactions. Strong measures are planned to protect customer information and ensures secure payment processing.

6. **Scalability Feasibility**

   It evaluates whether the platform can handle an increasing number of users, products, and orders. Plans for future features, such as personalized recommendations and live chat support, ensure the platform remains efficient as it grows.

The analysis confirms that "Shoes Store" is a viable project with strong market potential, a sound financial strategy, and a solid technical foundation. Challenges like scaling and maintaining security are acknowledged and will be managed effectively as the platform evolves.

Chapter 3: Network Infrastructure

3.1 Introduction

Network infrastructure refers to the underlying framework of interconnected hardware, software, and communication technologies that facilitate the transmission, processing, and exchange of data within a computer network. It includes:

- **Physical Components:** Routers, switches, servers, cables, and wireless access points.
- **Software Protocols:** Standards for communication and data transfer.

Network infrastructure supports communication between devices, enabling data sharing across Local Area Networks (LANs), Wide Area Networks (WANs), and the Internet.

A network can be defined as:-

- Technologies to integrate Business Process
- Mediator for Digital transmission of Digital
- Content/Message/File/DATA
- The interaction between Entities of business
- like Supplier/Distributor/partner etc...
- A framework with security & ease.
- Building block of E-commerce.

World Wide Web (WWW)

The World Wide Web (WWW) is a global hypermedia system operating over the Internet. It enables access to interconnected documents and multimedia resources, revolutionizing communication and information exchange in the digital age.

Key Milestones:

- 1989: Invented by Tim Berners-Lee at CERN to create a global distributed hypermedia system.
- 1993: The launch of MOSAIC, the first user-friendly browser.

- 1994: Formation of the World Wide Web Consortium (W3C), responsible for developing web standards like HTML, HTTP, and CSS.

The WWW relies on services like the Domain Name Service (DNS) for naming and the Transmission Control Protocol (TCP) for reliable data transmission.

Internet

The Internet is a global network interconnecting computers through standardized protocols. It supports communication and data exchange between systems, serving as the foundation for e-commerce and online services.

How the Internet Works:
The Internet uses the Internet Protocol Suite (TCP/IP) to enable packet-based data transmission across various networks, creating a unified global system.

3.2 Connecting to the Internet

Internet connectivity is established through various methods, depending on the device and purpose:

- **Dial-Up Connections:** Ideal for client computers needing intermittent internet access, typically assigned dynamic IP addresses by ISPs.
- **Leased Lines:** Servers require constant connectivity, often supported by leased lines for higher reliability and speed.

Modern connectivity employs technologies like WPA, 3G, 4G, and 5G, ensuring secure and efficient operations with faster data transmission for smooth website functionality.

3.3 Components of I-Way

The I-Way infrastructure is vital for connecting users, businesses, and global communication networks. It consists of three main components:

1. **Consumer Access Equipment**

   Devices and software that allow consumers to access multimedia and interactive e-commerce content. This category includes hardware (e.g., computers, mobile devices) and software vendors.

2. **Local On-Ramps**

   Access points linking businesses, universities, and homes to the I-Way's communication backbone. Four types of on-ramp providers:

   - Telecom-based services
   - Cable TV-based services
   - Wireless-based services
   - Computer-based online information services

3. **Global Information Distribution Networks**

   This component includes the infrastructure connecting countries and continents, enabling international communication and data exchange for e-commerce operations.

Chapter 4: Process of Building Website

4.1 Steps for Website Building

"Shoes Store" is an online store designed to make buying shoes easy and convenient. Here are the steps followed to build the website:

1. **Plan Features:**
   Decide on the main features, such as browsing shoe collections, entering the shoe name and size, and completing a secure checkout process.
2. **Set Up Environment:**
   Install Laravel for backend development, set up MySQL for the database, and configure tools like TailwindCSS for styling.
3. **Frontend Development with TailwindCSS:**
   Create a user-friendly and responsive design using TailwindCSS to make the website visually appealing and easy to navigate.
4. **Backend Development with Laravel and MySQL:**
   Develop the backend using Laravel to manage product listing and user accounts, while MySQL handles the storage of all data securely.
5. **Payment Integration:**
   Integrate secure payment methods, such as eSewa, to ensure customers can complete their purchases easily and safely.
6. **Local Testing:**
   Test the website on a local server to make sure everything works properly, including browsing, entering the shoe name and size, providing phone number and address, selecting a payment method (COD or eSewa), and verifying that orders are correctly listed in the user's orders section.

4.2 Hosting Process on VPS

After completing the development and testing of the shoe store website, the next step is host it on a VPS (Virtual Private Server). Here's how:

1. **Choose a VPS Provider:**

   Pick a VPS provider like DigitalOcean, Linode, or AWS, and create an account. Set up a VPS with enough resources to handle your website traffic and needs.

2. **Set Up the Server:**

   Log in to the VPS using SSH and install the required software, such as:

   - Laravel for backend.
   - MySQL for the database.
   - Nginx or Apache to serve the website.
   - SSL certificate to enable secure HTTPS connections.

3. **Upload the Project to VPS:**

   Upload your project files to the VPS using tools like scp (secure copy), an FTP client, or by cloning the repository directly from Git.

4. **Configure Web Server:**

   Set up Nginx or Apache to serve the website. Configure a virtual host or server block to point to your website's directory. Set up the domain if you have one.

5. **Set Up the Laravel Application:**

   Run the Laravel application on the VPS. Use a process manager like Supervisor or systemd to keep the application running smoothly in production.

6. **Configure the Database:**

   Ensure the MySQL database is set up properly and connected to your Laravel application. Import any necessary database files or configurations.

7. **Domain Configuration:**

   If you have a domain, point it to your VPS IP address by configuring DNS settings through your domain register.

8. **Test the Live Site:**

Once everything is set up, test the website on the VPS. Check features like entering shoe details (name, size, etc.), selecting a payment method (COD or eSewa), and ensuring orders are correctly listed in the user's orders section.

4.3 Customer Account

Customers can easily place orders by entering the shoe name, size, phone number, address, and selecting a payment method (COD or eSewa). The platform ensures a smooth and secure process, listing all their orders in the customer's account.

Chapter 5: Payment Gateway

5.1 Payment Gateway

A payment gateway is an e-commerce service that enables secure communication of transaction information between the customer, merchant, and bank during online payments. It ensures smooth data transfer to the acquiring bank and retrieves responses from the issuing bank, such as approval or decline of the transaction.

Payment gateways are essential for any online business that accepts card or digital payments from customers. With e-commerce transactions growing significantly, integrating a reliable payment gateway has become crucial for providing a seamless shopping experience.

Popular Payment Methods:

- E-sewa
- Khalti
- Bank Transfer
- Debit/Credit Cards
- Cash on Delivery (COD)

The **“Shoes Store”** uses **eSewa** as the payment gateway for performing secure donations.

Chapter 6: Handling Security Issues

6.1 Introduction

Security is very important for **"Shoes Store"** to keep customer and payment information safe. Since the platform handles personal details and payment methods, it must protect against cyber-attacks, fraud, and data leaks to build trust and protect sensitive information.

6.2 Common Security Issues

1. **Data Breaches:** Unauthorized access to sensitive customer information.
2. **Payment Fraud:** Fraudulent transactions due to compromised payment details.
3. **Phishing Attacks:** Fraudulent attempts to steal sensitive information.
4. **SQL Injection:** Malicious code targeting the database.
5. **Cross-Site Scripting (XSS):** Malicious scripts that could steal session data or compromise the website.

6.3 Key Security Measures

1. **SSL/TLS Encryption:**
   Protects the data shared between the website and customers, ensuring all information is transmitted securely and privately.

2. **Two-Factor Authentication (2FA):**
   Adds an additional layer of security for the donor login process by requiring an extra verification step.

3. **Secure Payment Gateways:**
   Uses reliable payment methods like eSewa to securely process payments and protect customer details.

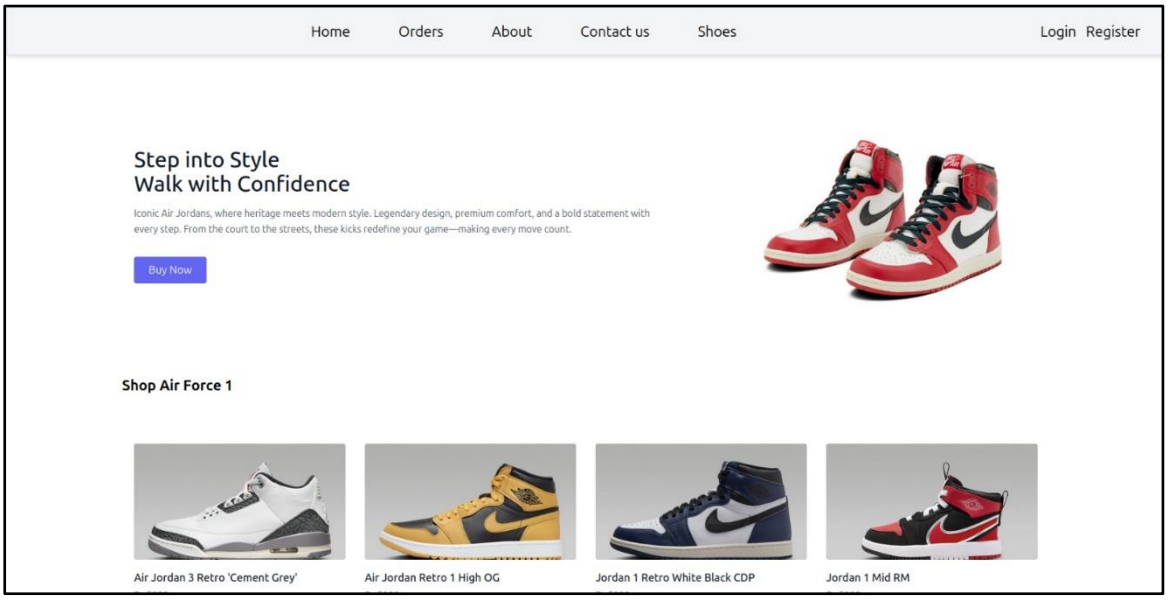
4. **Regular Updates & Firewalls:**
   Keeps the website and its tools updated to fix any security issues. Firewalls are set up to block harmful traffic and prevent unauthorized access.

6.4 Handling Security Issues

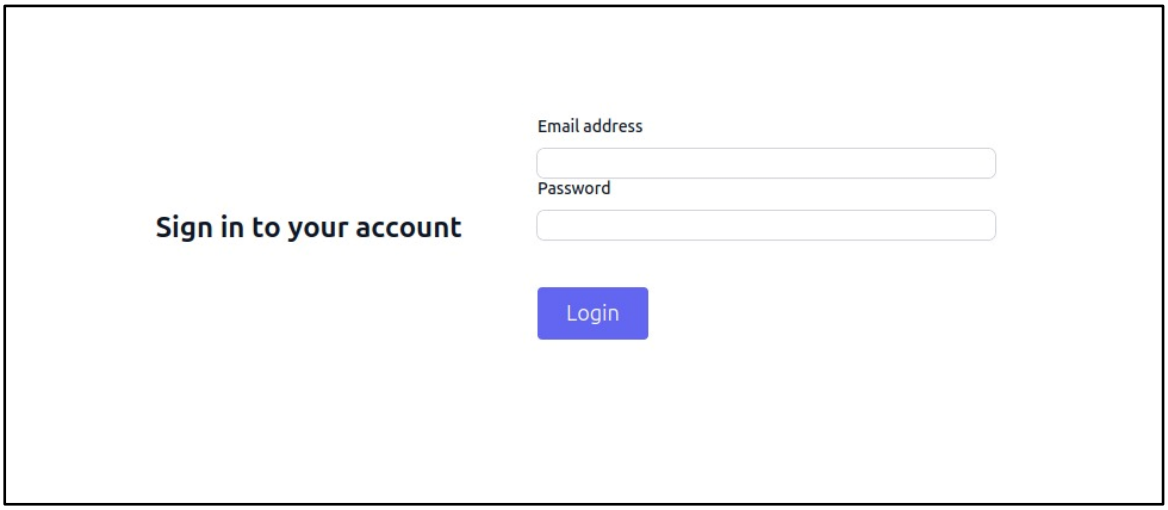
"Shoes Store" ensures a safe shopping experience for customers by using strong security measures across the platform. Payments made through eSewa are protected with encryption and verification, keeping transaction details secure and preventing fraud. Since the platform does not include an admin panel, there is no separate access for managing the store. The primary focus is on protecting customer information and payment data to maintain trust and protect sensitive details.

Chapter 7: Screen

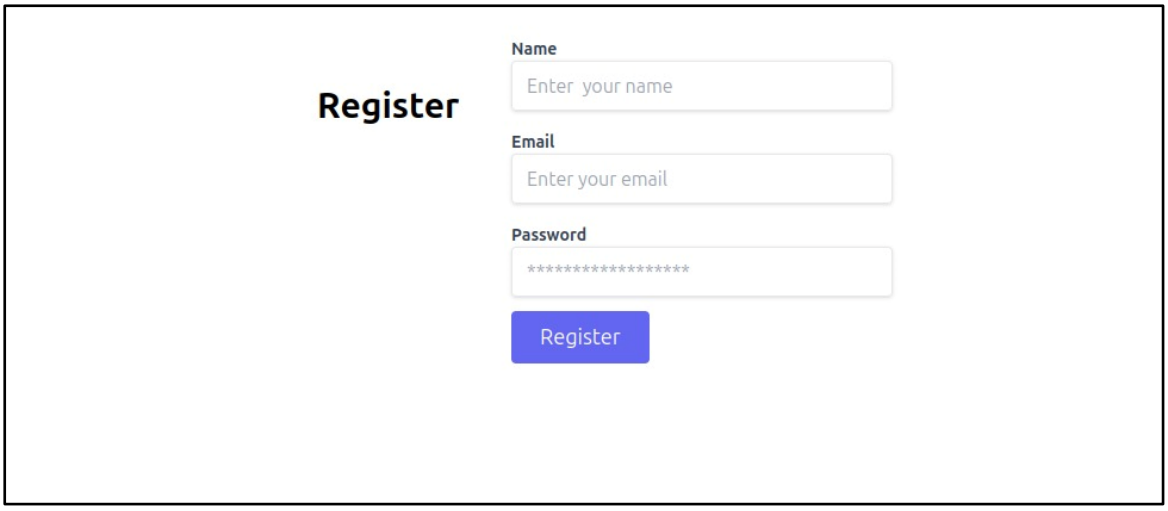
- **Home page:**



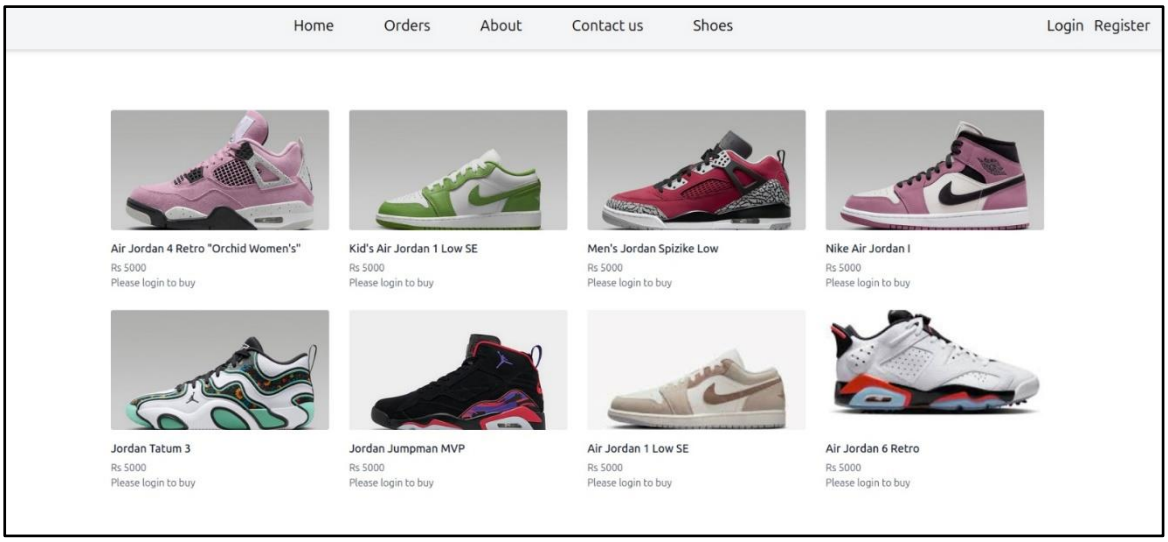
- **Login Page:**



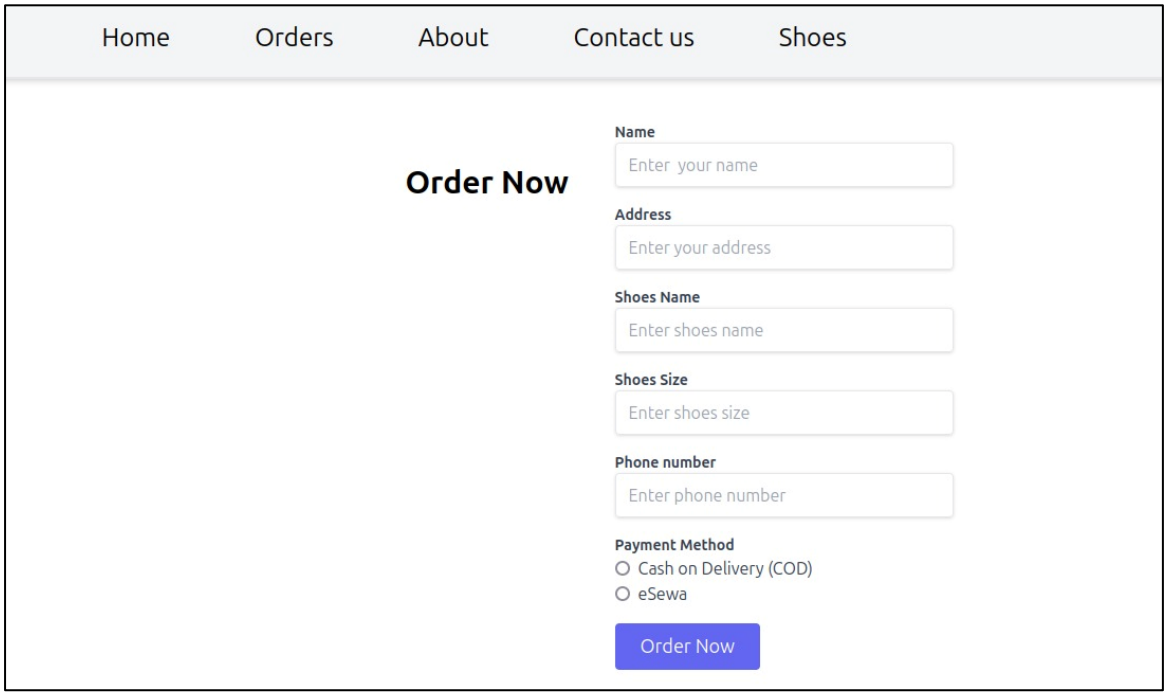
- **Register Page:**



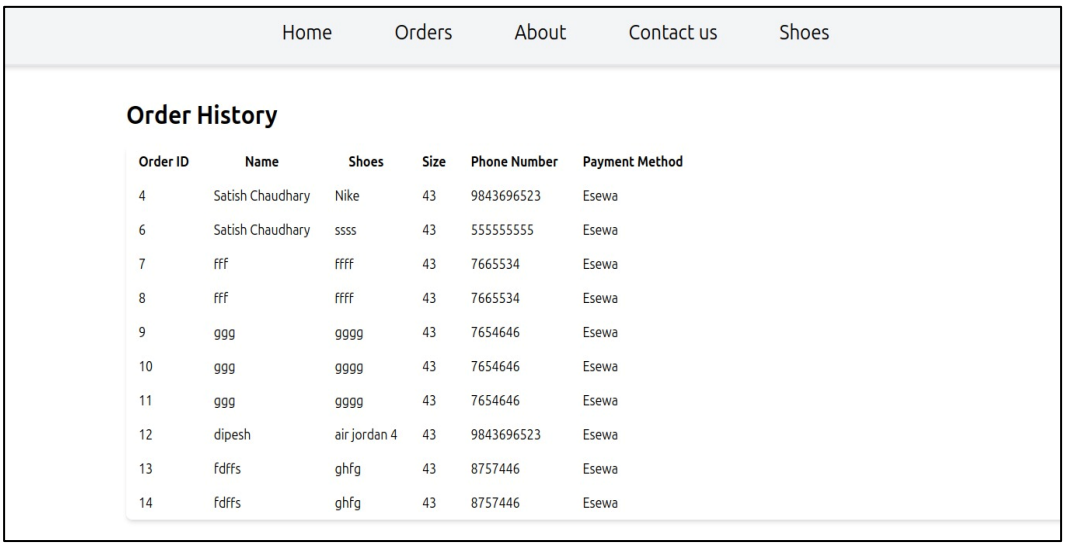
- **Shoes page:**



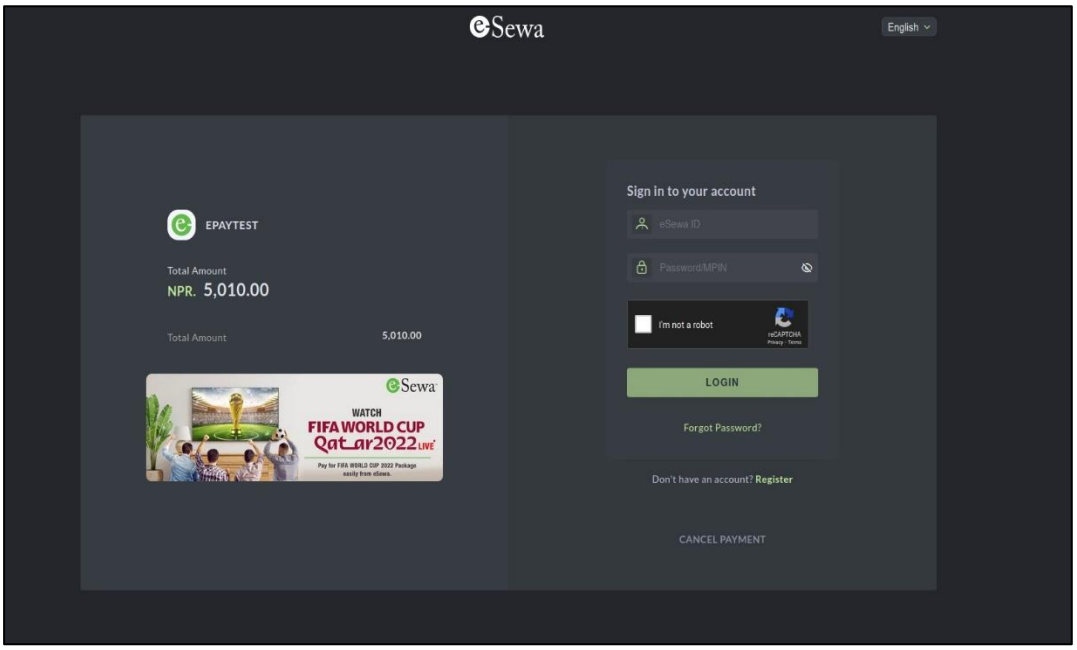
- **Order Page:**



- **Order History Page:**



- **E-Sewa Page:**


eSewa
English
EPAYTEST
Total Amount
NPR. 5,010.00
Total Amount
5,010.00
eSewa
WATCH
FIFA WORLD CUP
Qatar2022 LIVE
Sign in to your account
eSewa ID
Password/MPIN
I'm not a robot
reCAPTCHA
LOGIN
Forgot Password?
Don't have an account? Register
CANCEL PAYMENT

Chapter 8: Conclusion

8.1 Conclusion

"Shoes Store" is a simple and convenient platform that allows customers to order shoes by entering details like shoe name, size, phone number, address, and selecting a payment method. It focuses on providing an easy and secure shopping experience while protecting customer information.

The website is built using modern tools like Laravel, MySQL, TailwindCSS, and eSewa integration to ensure it is fast, secure, and user-friendly. Challenges such as ensuring secure payments and handling customer data were addressed through careful research and implementation.

Although the store is not live yet, it has great potential for success. Future updates could inside expanding payment options and adding features to improve customer experience further. **"Shoes Store"** demonstrates how a straightforward idea, supported by technology, can provide an efficient and enjoyable way for customers to shop online.