e-ISSN: 2582-5208

International Research Journal of Modernization in Engineering Technology and Science

(Peer-Reviewed, Open Access, Fully Refereed International Journal)

Volume:07/Issue:04/April-2025 Impact Factor- 8.187 www.irjmets.com

JEWELLERY SHOP MANAGEMENT SYSTEM USING PHP

Karthikeyan M[*1], Dr. C. Mohanapriya[*2]

[*1]Student, Dr. NGP Arts And Science College Coimbatore, India.

[*2]Associate Professor, Dr. NGP Arts And Science College Coimbatore, India.

ABSTRACT

The Jewellery Shop Management System is a web-based application developed using PHP and MySQL to efficiently manage the operations of a jewellery store. This system automates key business processes such as inventory management, sales tracking, customer management billing. The system allows store owners to add, update categorize jewellery items, monitor stock levels and generate invoices automatically. Customers can browse products, place orders and receive notifications about their purchases. Secure authentication ensures that only authorized users can access different modules.

The admin panel provides real-time insights into sales reports, inventory status and customer transactions. The system also includes employee management features, allowing store owners to assign roles and track performance.With PHP for backend development and MySQL for database management, this system ensures data integrity, security and scalability. The user-friendly interface enhances usability, making it easy for staff to navigate and perform tasks efficiently.By automating manual tasks, minimizing errors and improving customer service, this Jewellery Shop Management System enhances business operations and helps jewellery store owners manage their businesses more effectively.

The aim of this application is to reduce the manual effort needed to manage transactions and historical data used in various gods owns. Also this application provides an interface to users to view the details about events.Today most of the jewellery shop is useful for shopping site. The admin have lots of paper work and they are using desktop, spread sheet like MS Excel application to manage data soft copy about user record. In this proposed jewellery System, it will run in server and user can h and le whole the registration activities.

I. INTRODUCTION

The Jewellery Shop Management System is a software solution designed to streamline and automate the daily operations of a jewellery store. It helps manage inventory, sales, customer records, employee details and financial transactions efficiently. This system eliminates the need for manual record-keeping, reducing errors and improving overall productivity Jewellery businesses deal with a wide range of products, including gold, silver, diamonds and gemstones, requiring proper categorization and tracking. The system allows store owners to add, update and manage jewellery stock while keeping real-time inventory records. It also facilitates easy order processing, automated billing and invoice generation.The system includes a customer management module, allowing store owners to maintain customer details, track purchase history and offer personalized recommendations. Customers can browse products, place orders and receive notifications about their purchases, enhancing their shopping experience.

Additionally, an employee management module enables store owners to assign roles, track staff performance and manage payroll. The sales reporting feature provides insights into revenue, stock levels and business performance.Built with secure authentication and user role management, the system ensures data protection. Whether implemented as a desktop or web- based application, the Jewellery Shop Management System significantly enhances efficiency, minimizes manual workload and improves customer satisfaction, making it a valuable tool for jewellery businesses.

An “Jewellery Shop Management System” The main goal of this project was to create shopping cart, which allows customers to shop and purchase the Jewelleryproducts online. Moreover, the project is also designed in such a way it lets managers manage the products information.

II. LITERATURE REVIEW

The **Jewellery Shop Management System** is an essential tool for managing jewellery businesses efficiently. Several studies and existing systems highlight the importance of **automated inventory management, secure transactions and user-friendly interfaces**.

Traditional Jewellery Management,Earlier, jewellery businesses relied on manual records, which led to errors and inefficiencies.Managing stock, orders and customer details manually was time-consuming and prone to mistakes.

Database-Driven Management Systems Modern systems use relational databases (MySQL, PostgreSQL) to store and retrieve jewellery product data securely.Database-driven solutions provide better accuracy, faster transactions and automated inventory tracking.

Use of PHP and MySQL in Web Applications PHP is widely used for server-side scripting due to its ease of integration with MySQL.Web-based jewellery management systems allow real- time data access, secure transactions and multi-user support.

Role of Security in E-commerce Jewellery Systems Research emphasizes the need for secure payment gateways, data encryption and user authentication.Secure coding practices prevent issues like SQL injection and unauthorized access.

Integration of Emerging Technologies Some systems incorporate AI-based recommendations and Augmented Reality (AR) for virtual jewellery trials.Mobile applications also improve customer engagement and business growth.

Existing System:

The existing Jewellery Shop Management System primarily relies on manual record- keeping or basic software to h and le inventory, sales and customer details. This approach leads to inefficiencies in tracking stock, managing sales and processing customer orders. Jewellery stock is often recorded in ledgers or spreadsheets, making it difficult to update and prone to human errors. Manual billing takes extra time, increasing the chances of miscalculations and delayed customer service. Additionally, customer data is not stored systematically, resulting in missed opportunities for personalized recommendations and marketing. Security is also a concern, as physical records are vulnerable to loss or unauthorized access. The lack of real-time inventory updates and sales reports makes it hard for shop owners to analyze business performance. Due to these challenges, a modernized, automated system using PHP and MySQL is necessary to enhance efficiency, accuracy and customer satisfaction in jewellery shop management.

III. METHODOLOGY

The methodology for developing the Jewellery Shop Management System follows a structured approach to ensure an efficient, scalable and secure application. The system is designed using PHP and MySQL with a well-defined Software Development Life Cycle (SDLC) process.

System Architecture

The Jewellery Shop Management System follows a three-tier architecture for efficient data processing, security and scalability. This architecture consists of the Presentation Layer (Frontend), Business Logic Layer (Backend) and Data Layer (Database).

Presentation Layer (Frontend)

Technologies Used: PHP, HTML, CSS, JavaScript

Role: Provides the user interface (UI) for customers, staff and admins.

Features:

- Login & Authentication
- Product Catalog (Jewellery Display)
- Order Placement & Billing
- Dashboard for Admin & Staff

Business Logic Layer (Backend)

Technology Used: PHP (Server-Side Scripting)

Role: Manages data processing, transactions and business rules.

Features:

- H and les Inventory Management

- Processes Orders & Payments
- Manages Users & Access Control
- Generates Reports & Analytics

Data Layer (Database)

Technology Used: MySQL (Relational Database)

Role: Stores and retrieves customer data, product details, transactions and reports. Tables:

- users – Stores admin, staff and customer details
- products – Stores jewellery items with stock details
- orders – Tracks customer purchases
- transactions – Manages sales and payments.

Development Tools and Environment

Backend Development (Server-Side)

- PHP: H and les server-side logic and connects with the database.
- MySQL: Stores and retrieves data related to products, customers and transactions.

Frontend Development (Client-Side)

- HTML & CSS: Designs the structure and layout of the web pages.
- JavaScript & jQuery: Enhances interactivity and real-time updates.

Database Management

- phpMyAdmin: A GUI-based tool to manage MySQL databases.
- MySQL Workbench: Alternative for database design and queries.

Testing & Debugging Tools

- XAMPP/WAMP/LAMP: Provides a local testing environment for PHP and MySQL.
- Postman: API testing tool (for h and ling requests between frontend and backend).
- PHP Debugger (Xdebug): Helps in debugging and performance optimization.

Deployment Tools

- cPanel / FTP Clients: Used for hosting the system online.
- Cloud Hosting: AWS, DigitalOcean, or shared hosting services.

IV. SYSTEM MODULES

User Management – H and les admin, staff and customer accounts with secure authentication. **Inventory Management** – Manages jewellery stock, updates product details and tracks availability.

Sales & Billing – Processes sales, generates invoices and calculates prices with taxes/discounts. **Customer Management** – Stores customer details, purchase history and sends notifications. **Order Management** – Manages order placement, tracking and status updates. **Reports & Analytics** – Generates sales, stock and revenue reports for business insights. **Security & Backup** – Ensures secure access, prevents cyber threats and creates data backups..

Development Approach

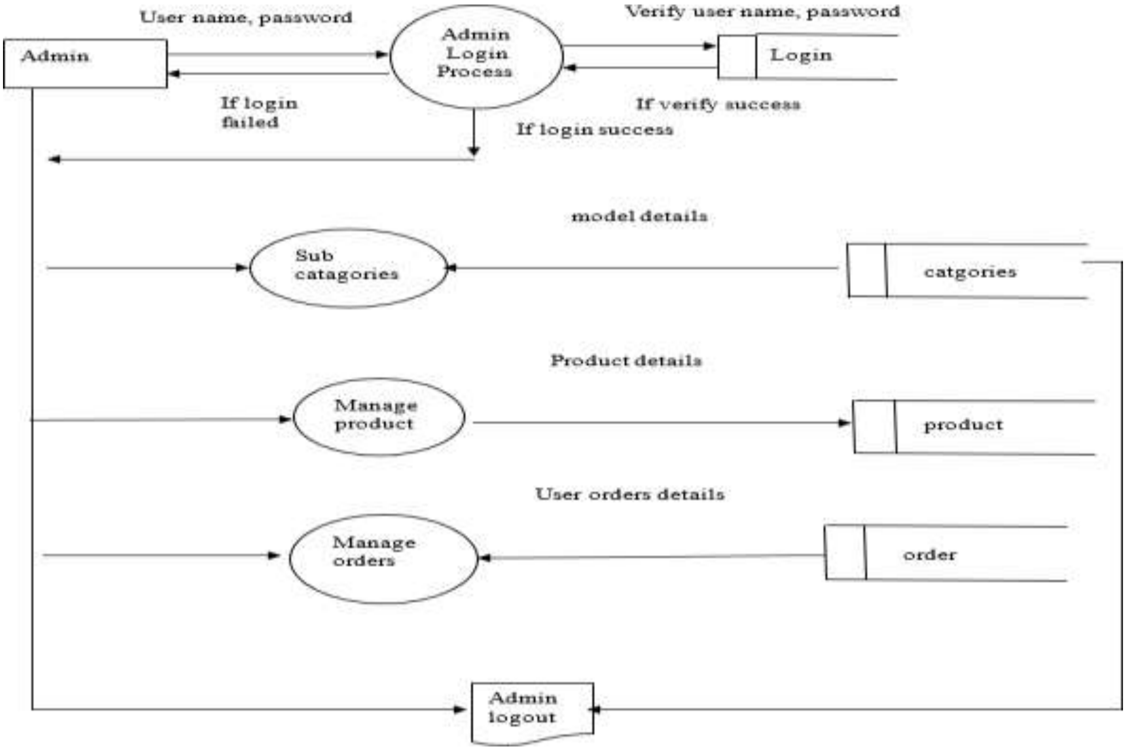
- Requirement Analysis – Identify business needs, system functionalities and user roles.
- System Design – Create database schema, UI/UX wireframes and module architecture.
- Implementation – Develop frontend (PHP, HTML, CSS, JavaScript) and backend (PHP & MySQL).
- Testing – Perform unit, integration and security testing to ensure system reliability.
- Deployment – Host on a server (XAMPP/WAMP for local, cPanel/cloud for live).
- Maintenance & Updates – Regular updates, bug fixes and performance optimization.

Testing Strategy

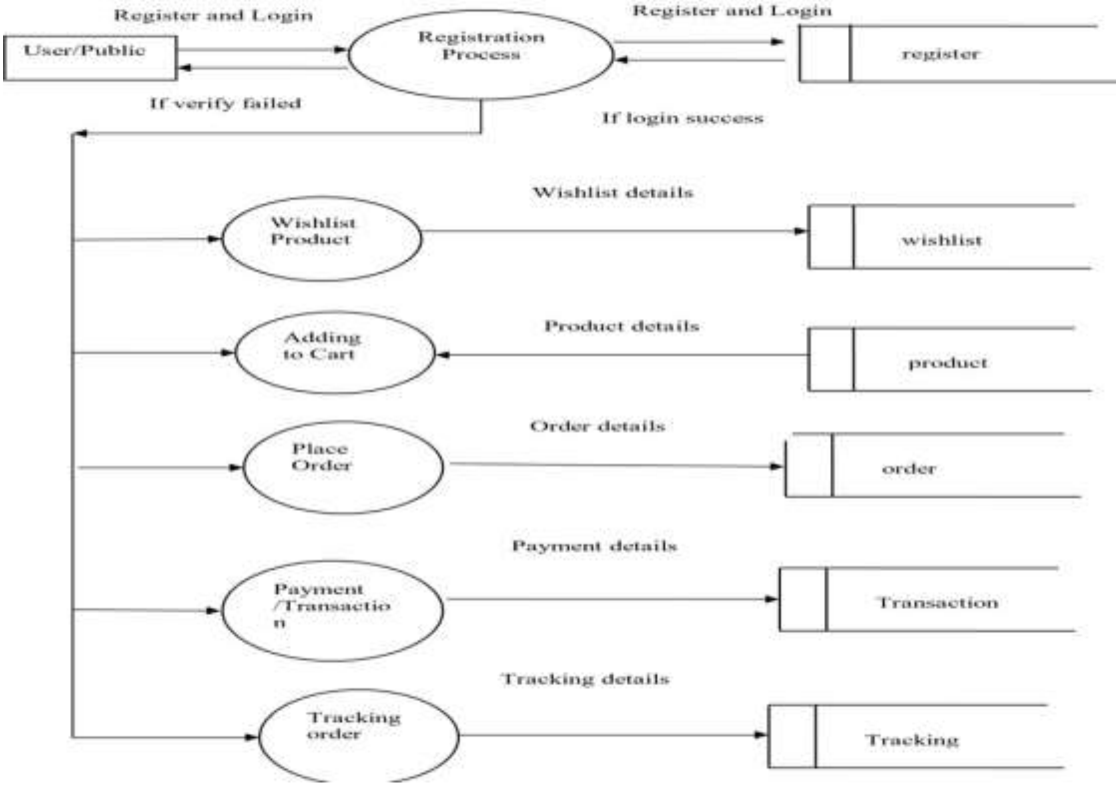
- Unit Testing – Test individual modules like user authentication, inventory updates and order processing.

- Integration Testing – Verify seamless data flow between frontend, backend and database.
- Functional Testing – Ensure all features (billing, product management, reports) work as expected.
- Security Testing – Check for vulnerabilities like SQL injection and unauthorized access.
- Performance Testing – Assess system speed, load h and ling and database efficiency.
- User Acceptance Testing (UAT) – Get feedback from real users to ensure usability.

Data Flow Diagram: ADMIN:



USER



V. RESULTS AND DISCUSSION

The Jewellery Shop Management System improves business efficiency by automating key processes like inventory tracking, sales management and customer h and ling. Below are the key results and insights:

1. System Efficiency

- Reduces manual errors in billing and stock management.
- Speeds up product search, order processing and invoicing.

2. Security & Data Protection

- Implements user authentication, encrypted transactions and role-based access.
- Prevents unauthorized access and cyber threats like SQL injection.

3. User Experience & Accessibility

- Responsive UI allows easy navigation for customers and staff.
- Real-time updates for stock, sales and order tracking enhance decision-making.

4. Business Growth & Scalability

- Data-driven reports help in revenue analysis and dem and forecasting.
- System can be exp and ed with new features like online payments and AR-based jewellery trials.

Output

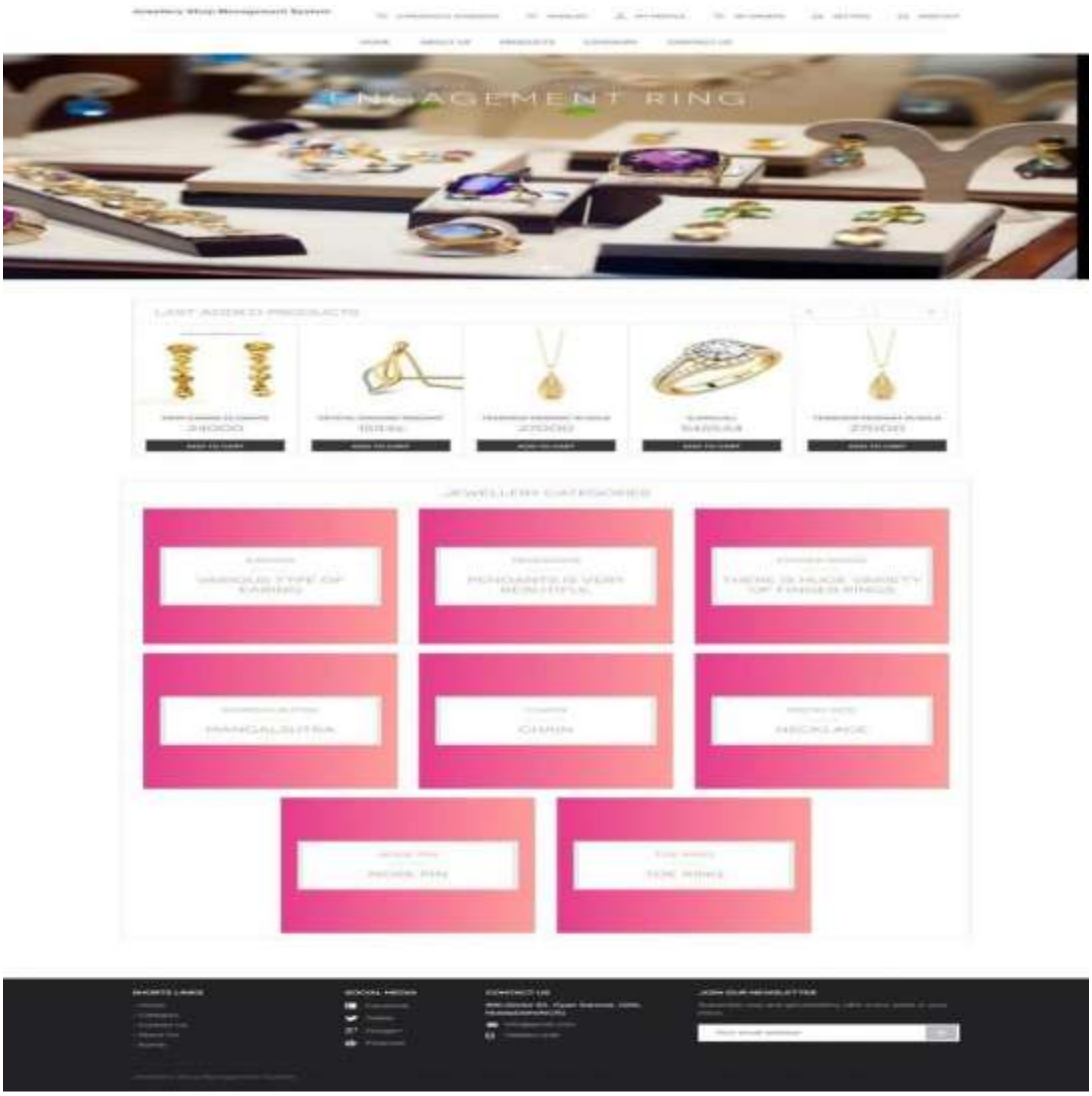
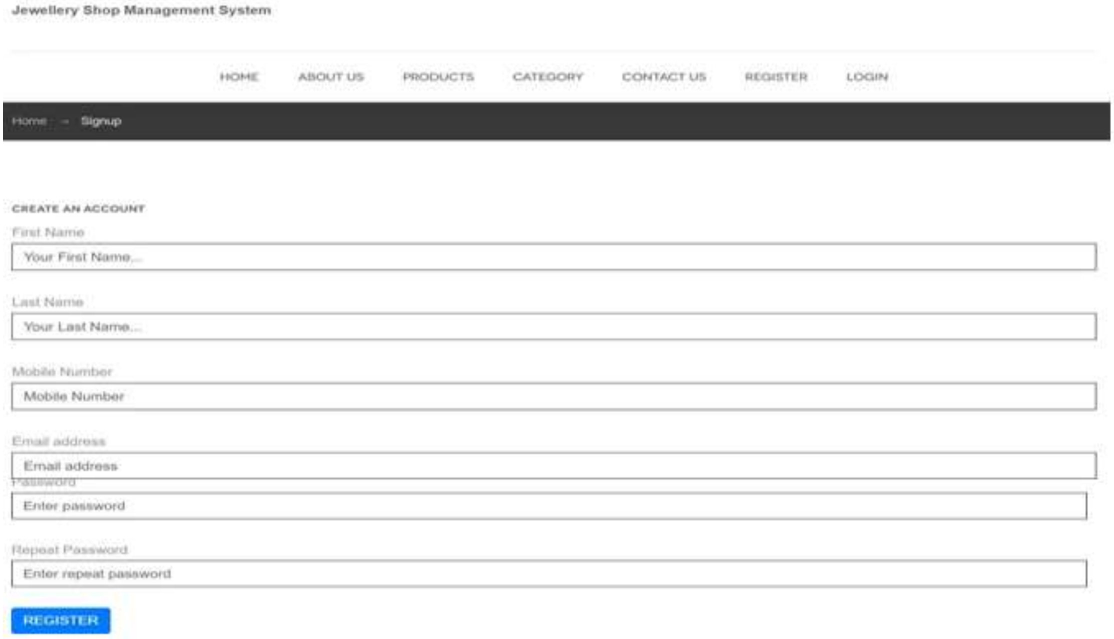


Figure 1: Home Page



CREATE AN ACCOUNT

First Name
Your First Name...

Last Name
Your Last Name...

Mobile Number
Mobile Number

Email address
Email address

Password
Enter password

Repeat Password
Enter repeat password

REGISTER

Figure 2: Register form Page

Figure 3: order placement form Page

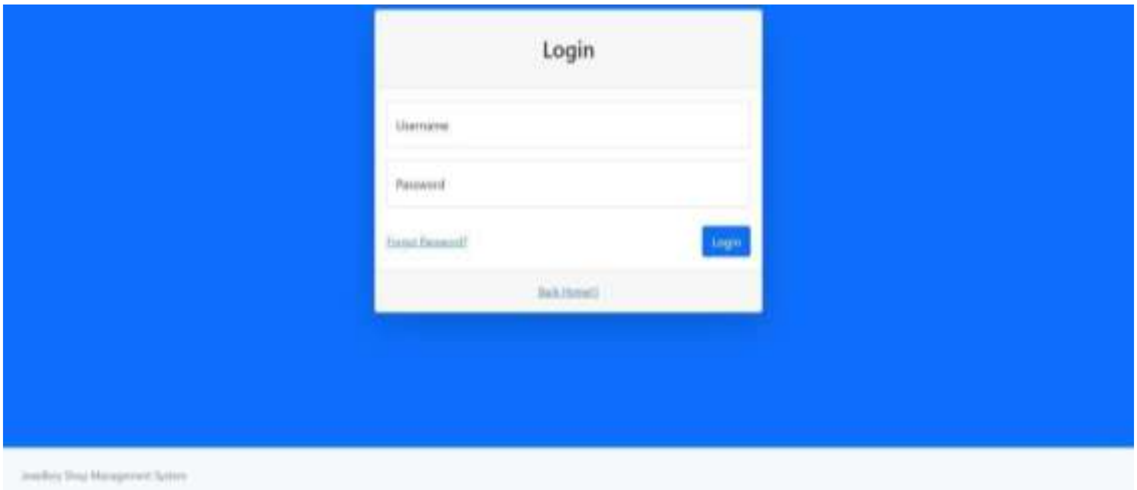


Figure 3: User login

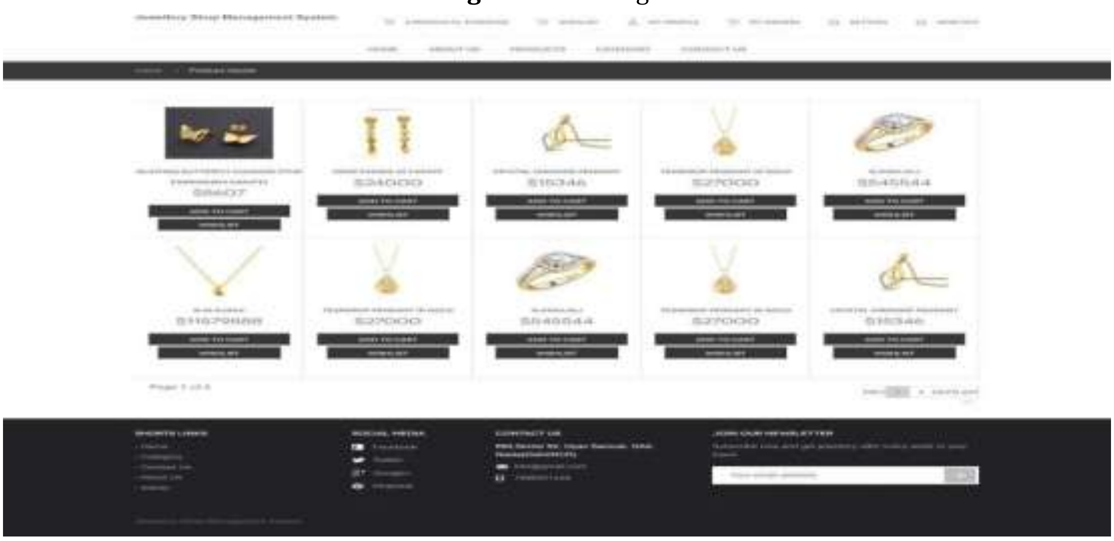
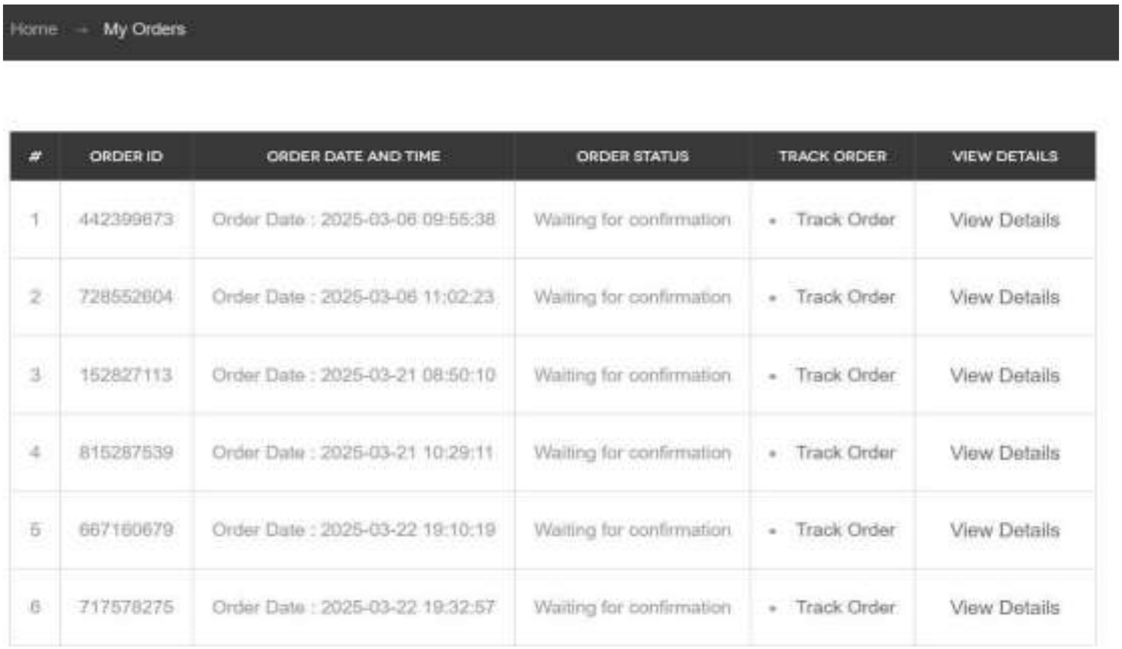


Figure 4: Product list Page



Home → My Orders

#	ORDER ID	ORDER DATE AND TIME	ORDER STATUS	TRACK ORDER	VIEW DETAILS
1	442399673	Order Date : 2025-03-06 09:55:38	Waiting for confirmation	• Track Order	View Details
2	728552604	Order Date : 2025-03-06 11:02:23	Waiting for confirmation	• Track Order	View Details
3	152827113	Order Date : 2025-03-21 08:50:10	Waiting for confirmation	• Track Order	View Details
4	815287539	Order Date : 2025-03-21 10:29:11	Waiting for confirmation	• Track Order	View Details
5	667160679	Order Date : 2025-03-22 19:10:19	Waiting for confirmation	• Track Order	View Details
6	717578275	Order Date : 2025-03-22 19:32:57	Waiting for confirmation	• Track Order	View Details

Figure 5: Order Confirmation Page

VI. CONCLUSION

The Jewellery Shop Management System is a comprehensive web-based application designed to streamline the operations of a jewellery store. Built using PHP and MySQL, the system automates various tasks such as inventory management, customer order processing, sales tracking and payment h and ling.

This system enhances efficiency by allowing admins to manage jewellery products, track stock levels, process customer orders and generate sales reports. Customers can browse products, place orders, make secure payments and leave reviews, improving their shopping experience. The inclusion of user authentication and role-based access ensures data security and prevents unauthorized modifications.

One of the key benefits of this system is its real-time inventory tracking, which prevents over- selling and ensures stock availability. The order management module simplifies the purchasing process, providing clear updates on order status and delivery tracking. The payment module supports multiple payment methods, making transactions seamless. .

VII. REFERENCES

[1] PHP and MySQL Web Development Book by (4th Edition) by Luke Welling, Laura Thomson.

[2] Head First PHP & MySQL Book by Lynn Beighley and Michael Morrison

[3] PHP & MySQL for Dummies Book by (4th Edition)BY Janet Valade

[4] (HTML and CSS , javascript) MDN web Docs

[5] web server Apache HTTP Server Documentation