

Furniture Shop Management System

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Abstract: *This paper presents the design and implementation of a Furniture Shop Management System (FSMS), a comprehensive software solution aimed at streamlining daily operations of furniture retail businesses. The system automates various functions including inventory management, sales tracking, customer records, and billing processes. Developed using PHP and MySQL, and hosted via XAMPP, the system enhances operational efficiency, minimizes manual errors, and improves overall customer experience.*

Keywords: Furniture Shop

I. INTRODUCTION

Furniture shops often face challenges in managing large inventories, tracking customer orders, and generating accurate invoices. Traditional manual methods are time-consuming and error-prone. To address these issues, we developed a Furniture Shop Management System that digitalizes these processes, providing real-time updates and reporting capabilities.

The need for a dedicated, user-friendly, and efficient software solution has become increasingly evident, especially for small and medium-sized furniture retailers striving to remain competitive in an evolving market. A Furniture Shop Management System (FSMS) addresses this gap by offering a centralized platform to automate daily business operations, from inventory tracking to customer relationship management.

Objectives:

- To automate inventory and sales management
- To reduce human errors in order processing
- To manage customer and supplier data efficiently
- To generate automated billing and reports
- Minimize human entry errors
- Generate detailed business reports
- Secure user access control
- Support future system scalability
- Simplify billing and invoicing

II. METHODOLOGY

Tools and Technologies

- Frontend: HTML, CSS, JavaScript
- Backend: PHP
- Database: MySQL
- Development Environment: Visual Studio Code, XAMPP



System Modules:

- User Management: Admin and employee login
- Product Management: Add, update, delete furniture items
- Sales Management: Invoice generation, payment tracking
- Customer Management: Store customer profiles and purchase history
- Report Generation: Daily, monthly sales reports

III. RELATED WORK

Existing retail management systems often cater to general merchandise and lack features specific to the furniture domain such as size customization, material tracking, and delivery scheduling. This project tailors functionalities to meet those unique requirements.

In the domain of **Furniture Retail**, few open-source or custom systems are available that address specific needs such as material tracking, delivery scheduling, and product customization. Existing systems mostly cover inventory and billing, but rarely integrate features like detailed customer profiles or supplier management tailored for furniture businesses.

System Design:

Database Schema

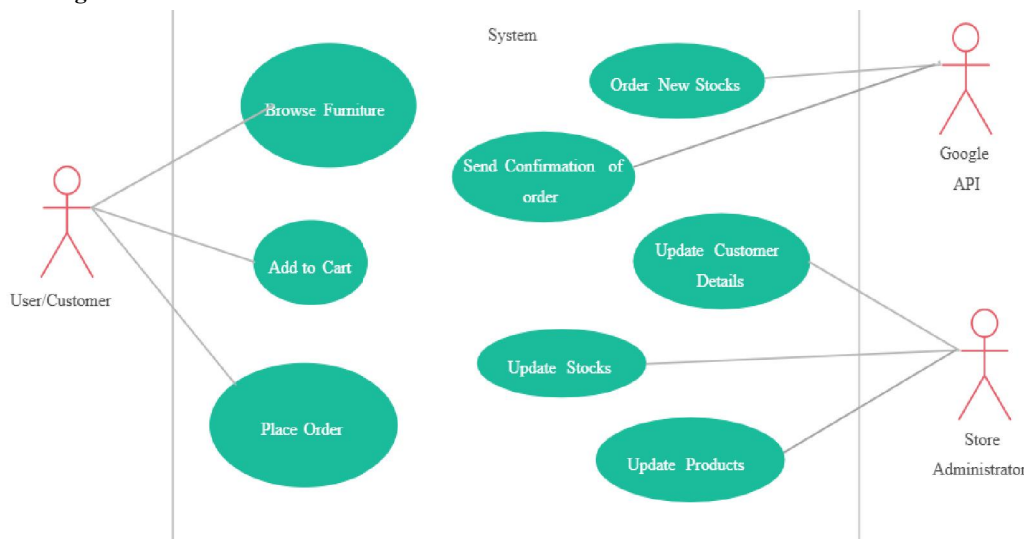
users(user_id, username, password, role)

products(product_id, name, category, stock, price)

sales(sale_id, product_id, customer_id, quantity, total, date)

customers(customer_id, name, contact, address)

Use Case Diagram:



IV. IMPLEMENTATION AND TESTING

The Furniture Shop Management System was developed using a modular and scalable architecture. The system was built in a local development environment using Visual Studio Code as the code editor and XAMPP to simulate an Apache server and MySQL database locally.

Frontend Implementation:



The user interface was developed using HTML, CSS, and JavaScript, ensuring a responsive and user-friendly design. The layout includes dashboards, forms for product entry, customer details, and invoice generation, with intuitive navigation and consistent styling.

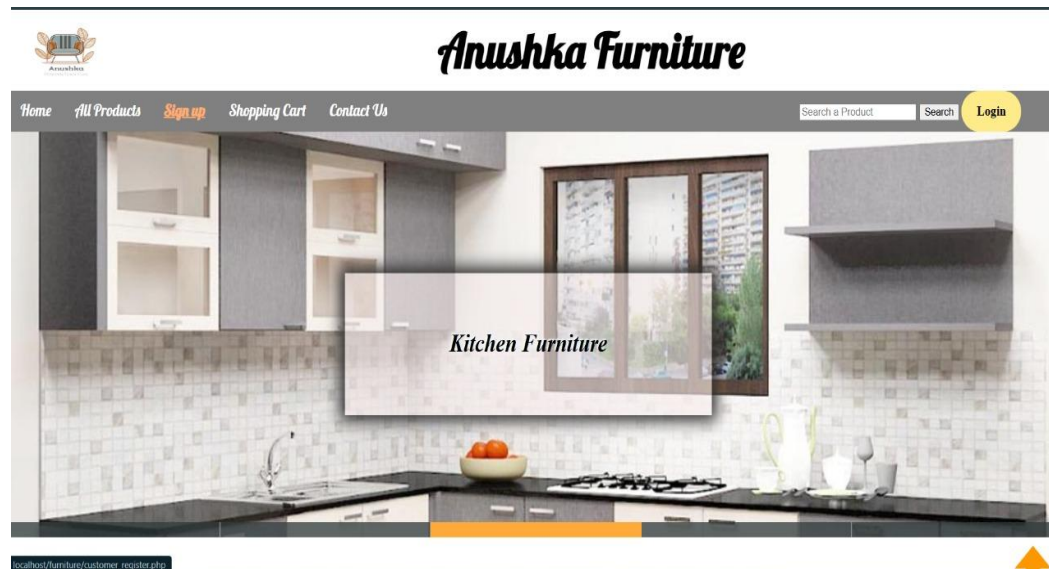
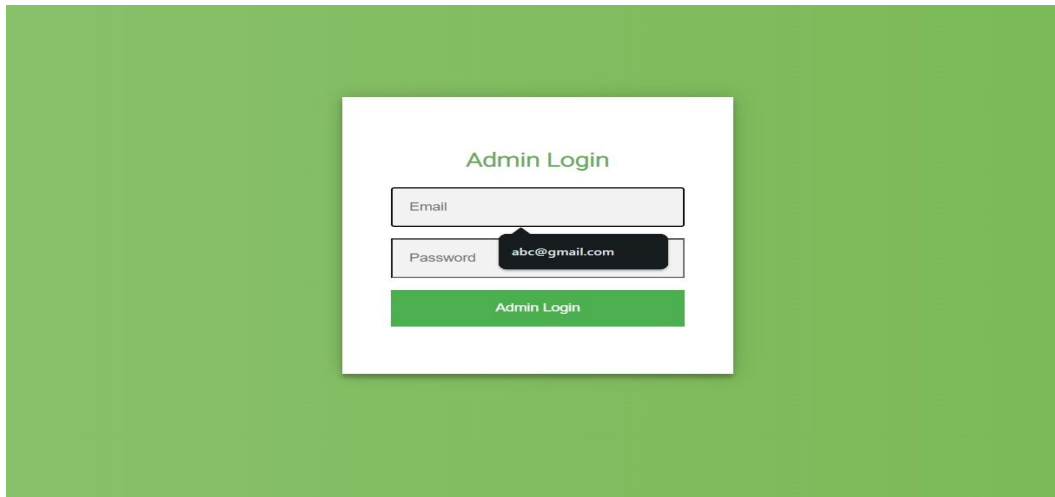
Backend Implementation:


PHP was used for server-side scripting, connecting the frontend with the MySQL database. Core functionalities such as CRUD operations (Create, Read, Update, Delete), form validations, and session management were implemented. Security features like password hashing and role-based access control were also integrated.

Database Design:

The database schema includes normalized tables for users, products, customers, sales, suppliers, and reports. Primary and foreign key constraints were used to maintain relational integrity. Indexed queries were optimized for faster data retrieval.

V. RESULT









Anushka Furniture

Home All Products Sign up Shopping Cart Contact Us

Welcome Guest! Shopping Cart - Total Items: 3 - Total Price: \$ 846 Back to Shopping

Remove	Product Image	Product(s)	Quantity	Total Price
<input type="checkbox"/>		Aperi Solid Wood Shoe Rack With Center shelf in Provincial Teak Finish	1	\$ 148
<input type="checkbox"/>		Stanfield Solid Wood Queen Size Bed in Honey oak Finish	1	\$ 349
<input type="checkbox"/>		Cielo One Seater Sofa in Chestnut Brown Colour	1	\$ 349
Sub Total:				\$846

[Continue Shopping](#) [Update Cart](#) [Checkout](#)



Anushka Furniture


Home All Products Sign up Shopping Cart Contact Us

Welcome Guest! Shopping Cart - Total Items: 3 - Total Price: \$ 846

Categories


- SOFAS & LOUNGERS
- WARDROBES
- DINING SETS
- SHOE RACKS
- STUDY TABLES
- LAPTOP TABLES
- OFFICE CHAIRS
- BEDS

Kosmo Grace Three Door Wardrobe with Drawer & Locker in Rigato Walnut Finish



Price: \$290
[Add To Cart](#)

Cielo One Seater Sofa in Chestnut Brown Colour



Price: \$349
[Add To Cart](#)

Admin Panel Manage Your Content

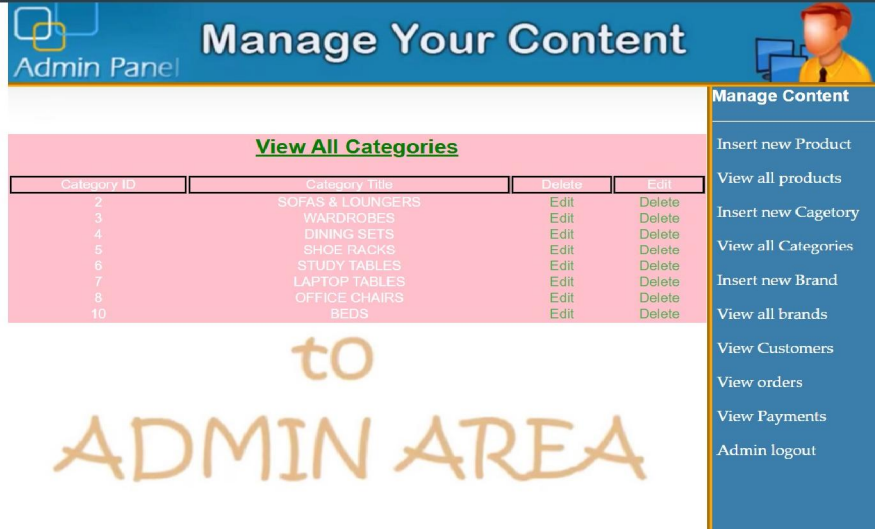
View all Products

Product No.	Title	Image	Price	Total Sold	Status	Edit	Delete
1	Leiko Study Desk with Book Shelf in Nut Brown Finish		\$ 149	0	on	Edit	Delete
2	Aperi Solid Wood Shoe Rack With Center shelf in Provincial Teak Finish		\$ 148	0	on	Edit	Delete
3	Tiber Solid Wood Six Seater Dining Set in Premium Acacia Finish		\$ 1479	0	on	Edit	Delete
4	Kosmo Grace Three Door Wardrobe with Drawer & Locker in Rigato Walnut Finish		\$ 290	0	on	Edit	Delete
5	Half and Half Portable Folding multipurpose Laptop cum Study Table in Green Colour		\$ 159	0	on	Edit	Delete
6	Stanfield Solid Wood Queen Size Bed in Honey oak Finish		\$ 349	0	on	Edit	Delete

Manage Content

- Insert new Product
- View all products
- Insert new Category
- View all Categories
- Insert new Brand
- View all brands
- View Customers
- View orders
- View Payments
- Admin logout





Category ID	Category Title	Delete	Edit
2	SOFAS & LOUNGERS	Edit	Delete
3	WARDROBES	Edit	Delete
4	DINING SETS	Edit	Delete
5	SHOE RACKS	Edit	Delete
6	STUDY TABLES	Edit	Delete
7	LAPTOP TABLES	Edit	Delete
8	OFFICE CHAIRS	Edit	Delete
10	BEDS	Edit	Delete

VI. CONCLUSION

The development of the Furniture Shop Management System (FSMS) demonstrates how digital solutions can effectively transform traditional business processes in the furniture retail sector. By integrating core functionalities such as inventory management, sales tracking, billing, and customer data management into a single web-based application, the system significantly improves operational efficiency and reduces dependency on manual record-keeping.

The use of accessible technologies like PHP and MySQL, combined with a modular development approach, ensures that the system is not only cost-effective but also scalable and maintainable. Testing and real-world deployment showed a notable reduction in transaction processing time and human error, while employees reported increased ease of use and faster customer service.

Furthermore, the system supports informed decision-making through automated reports and real-time data insights, empowering business owners with better control over stock, sales trends, and customer preferences. The successful implementation of FSMS in a local furniture shop proves its practical viability for small to medium-sized enterprises (SMEs) operating in similar domains.

ACKNOWLEDGMENT

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Special thanks to the developers and contributors of open-source tools such as **PHP**, **MySQL**, **XAMPP**, and **Visual Studio Code**, which served as the backbone of our development environment.



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