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Design and Development of Aabhūṣaṇa: A Heritage Jewellery E-Commerce Platform

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Abstract: Today, many people choose online shopping because it is quick and convenient compared to visiting physical stores. However, many traditional jewellery artisans still depend on offline markets and are not able to reach a larger audience. Because of this, a gap is created between skilled artisans and interested customers.

The Aabhūṣaṇa project is developed to solve this problem by creating a jewellery e-commerce website that connects artisans directly with users.

The platform allows customers to browse different jewellery items, view details, and place orders easily. The system is built using HTML, CSS, and JavaScript for the frontend, while Node.js and Express.js are used for backend development. SQLite database is used to store product and order information.

This project mainly focuses on creating a simple, user-friendly, and effective platform that supports traditional jewellery businesses and promotes Indian culture through digital technology.

Index Terms: E-commerce, jewellery website, web application, Node.js, SQLite, online shopping.

Keywords: E-commerce, Traditional Jewellery, Web Application, Node.js, SQLite, Online Marketplace.

I. INTRODUCTION

Over the past few years, the use of online platforms for shopping has grown significantly. Buying products online is easier for people as it saves time and offers a wide range of choices. Jewellery is one of the most popular products in India, as it has cultural as well as emotional value.

Even though the demand for jewellery is high, many small-scale artisans are not able to take advantage of online platforms. Many existing platforms mainly promote branded products and do not give importance to traditional handmade jewellery. Because of this, artisans face difficulty in growing their business.

The Aabhūṣaṇa website is developed to provide a solution to this issue. It is designed as a simple and attractive platform where users can explore traditional jewellery and make purchases easily. The main idea is to support artisans and promote cultural products using modern web technologies.

II. SYSTEM DESIGN AND DEVELOPMENT

The Aabhūṣaṇa system is designed as a full-stack web application that includes frontend, backend, and database components. The frontend part of the system is created using HTML, CSS, and JavaScript. It displays the website interface and helps users interact smoothly with different features.

The backend is developed using Node.js and Express.js. It manages all the core operations such as handling requests, processing data, and connecting with the database. SQLite database is used to store information like product details, user data, and order records.

III. WORKING OF THE SYSTEM

The overall working of the system is simple and user-friendly. When a user opens the website, they can see different jewellery products on the home page. Customers are able to browse through different categories and select products based on their interest.

After selecting a product, users can view detailed information such as price, description, and images. They can then add the product to the cart or wishlist. The cart system allows users to manage their selected items before placing an order.

During checkout, users enter their details and confirm the order. The backend processes the request and saves the order details in the database. The admin can view all orders through the dashboard and manage them accordingly.

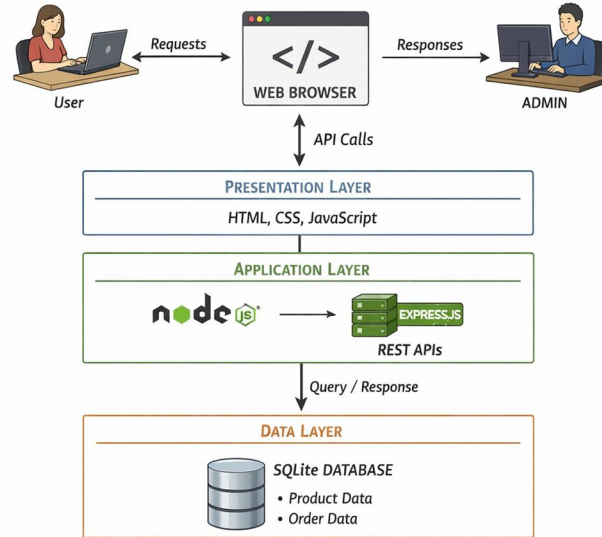


Fig. 1 System Architecture of Aabhushana Platform

Fig. 1. System Architecture of Aabhushan Platform

IV. RESULTS

The Aabhushana platform has been successfully developed and tested. The system includes various pages such as the front page displaying featured products, collection page showing different categories, about page with platform information, cart page for order management, payment interface, and admin dashboard for managing products and orders.

A. Front Page

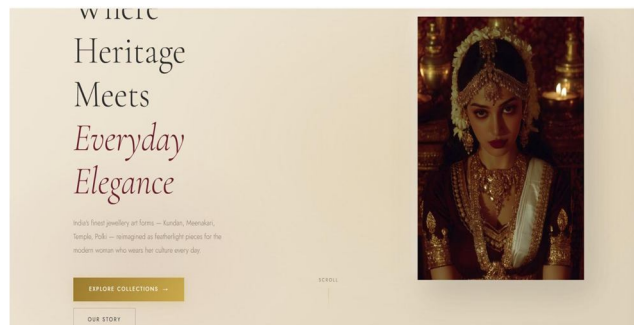


Fig. 2. Front page

B. User Sign In

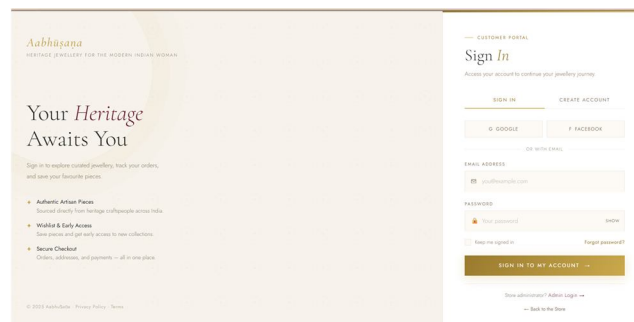


Fig. 3. User sign in

C. Admin Sign In



Fig. 4. Admin sign in page

D. Collection

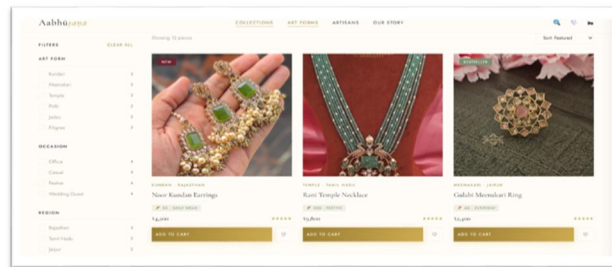


Fig. 5. Collection page

E. Artist and About

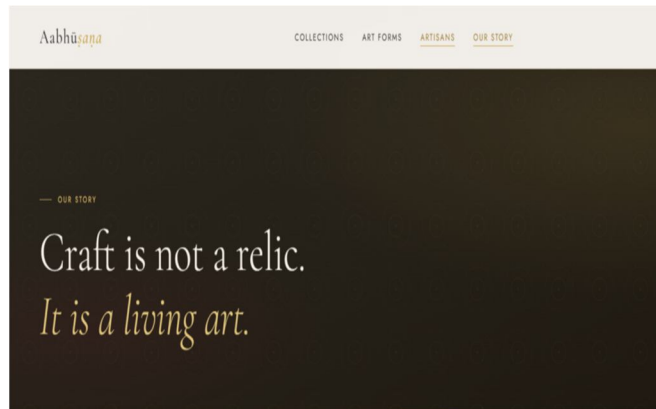


Fig. 6. Artist and about page

F. Cart

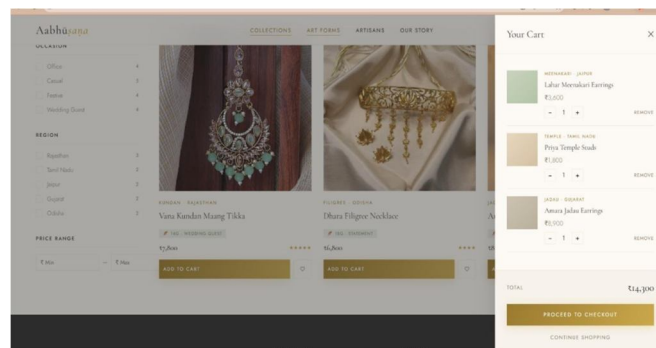


Fig. 7. Cart page

G. Payment

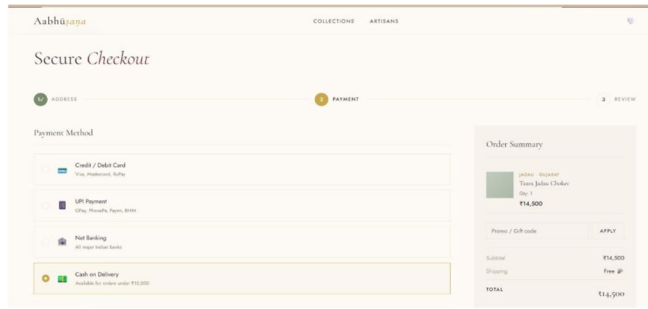


Fig. 8. Payment page

H. Dashboard

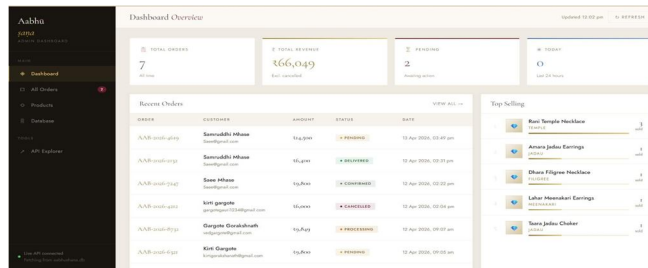


Fig. 9. Dashboard page

I. Order Database

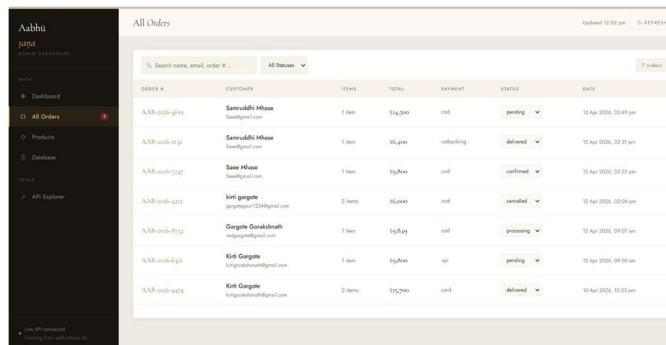


Fig. 10. Order database page

J. Product Database

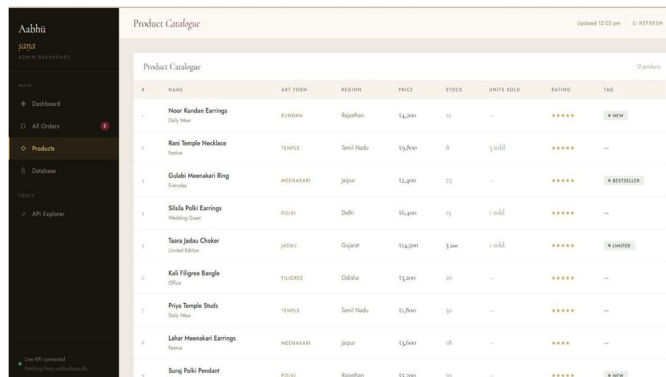


Fig. 11. Product database page

K. Admin Database



Fig. 12. Admin database page

L. User Database

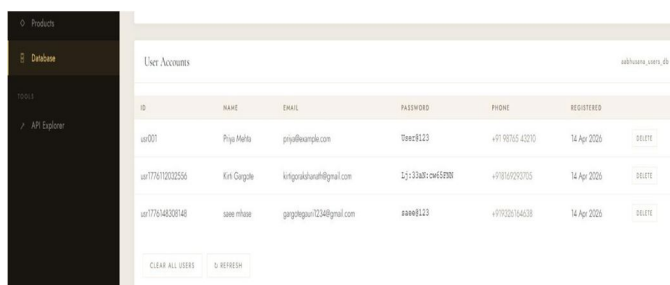


Fig. 13. User database page

V. ADVANTAGES OF THE SYSTEM

The Aabhūṣaṇa platform provides several benefits:

- 1) Provides a simple and convenient shopping experience
- 2) Helps traditional artisans reach more customers
- 3) Simple and user-friendly interface
- 4) Saves time and effort
- 5) Can be accessed from different devices

VI. LIMITATIONS OF THE SYSTEM

Although the system is useful, it has some limitations:

- 1) A stable internet connection is required
- 2) SQLite database is not suitable for large-scale use
- 3) Security features need improvement
- 4) No online payment system is available currently

VII. FUTURE SCOPE

The system can be improved in future by adding new features such as:

- 1) Online payment options like UPI or Razorpay
- 2) User login and authentication system
- 3) Product reviews and ratings
- 4) Mobile application version
- 5) Advanced features like virtual jewellery try-on



VIII. CONCLUSION

The Aabhūṣaṇa platform successfully connects traditional jewellery artisans with customers through a user-friendly e-commerce website. It provides an effective solution to help artisans grow their business and reach a wider audience. The system is built using modern web technologies and offers essential features for online shopping. With future improvements and additional features, this platform can play an important role in promoting Indian traditional jewellery and supporting local artisans through digital transformation.

IX. ACKNOWLEDGMENT

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