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Online Electrical and Hardware Website

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ABSTRACT: The system aims to provide users with a seamless and secure platform to explore, select, and purchase cosmetic products, enhancing the online shopping experience within the beauty and skincare industry. The Online Electricals And Hardwares Website System offers an intuitive interface for customers to browse a diverse catalog of cosmetic products, view detailed product information, and securely complete their purchases.

KEYWORDS: Fast delivery, expert advice, and support for industrial, commercial materials And experienced electrician staffs.

I. INTRODUCTION

Shopping has long been considered a recreational activity by many. Shopping online is no exception. The goal of this application is to develop a web-based interface for online retailers. The system would be easy to use and hence make the shopping experience pleasant for the users. The goal of this application is to develop an easy-to-use web-based interface where users can search for products, view a complete description of the products and order the products. A search engine that provides an easy and convenient way to search for products specific to their needs. The search engine would list a set of products based on the search term and the user can further filter the list based on various parameters. Drag and Drop feature which would allow the users to add a product to or remove a product from the shopping cart by dragging the product in to the shopping cart or out of the shopping cart. A user can view the complete specification of the product along with various images and also view the customer reviews of the product. The integration of a wish list feature will enable users to save items they are interested in purchasing later, making the shopping experience more efficient and personalized.

Objective:

The primary objective of the "Online Electrical and hardware Website" project is to develop a web-based online shopping application is to develop a user-friendly interface that enhances the overall shopping experience for customers. The platform aims to provide an efficient and intuitive product search feature, allowing users to easily find items tailored to their needs using filters and keyword-based searches. Detailed product descriptions, high-quality images, and customer reviews will be available to help users make informed purchasing decisions. The system will incorporate a drag-and-drop feature for adding or removing items from the shopping cart, offering a more interactive and convenient user experience. A wishlist function will be included to enable users to save products for future purchases, making the shopping process more personalized and efficient. Additionally, the application will allow side-by-side product comparisons based on features, pricing, and user feedback.

II. LITERATURE SURVEY

The rapid growth of e-commerce has significantly transformed the way consumers purchase goods and services, including products in the electrical and hardware domain. Various studies have explored the design and implementation of online retail platforms to enhance user experience, improve efficiency, and expand market reach.

According to Laudon and Traver (2020), successful e-commerce platforms must focus on usability, interactivity, and secure transaction processing to ensure customer retention and satisfaction. In the context of electrical and hardware products, these platforms must also manage complex product specifications, stock variations, and technical support content.

A study by Jadhav and Patil (2016) emphasized the importance of search functionality and product filtering in improving the customer decision-making process. They found that customers are more likely to complete a purchase when provided with rich content, such as detailed specifications, customer reviews, and comparison tools.

Several platforms, such as Amazon and Flipkart, have integrated features like real-time inventory management,



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recommendation engines, and mobile responsiveness, as highlighted by **Sharma et al. (2019)**. These features are particularly critical for hardware and electrical tools, where product compatibility and technical accuracy are essential. Security remains a key concern in online transactions. Studies by **Gupta and Bansal (2018)** stressed the necessity of secure payment gateways, data encryption, and user authentication mechanisms, particularly when dealing with high-value electrical equipment.

III. WEB DEVELOPMENT PHASES REQUIREMENTS ANALYSIS:

USER REQUIREMENTS:

➤ **Objective:** To develop the "Online Electrical and hardware Website" project is to develop a objective of this web-based online shopping.

FUNCTIONAL REQUIREMENTS:

- **User Registration and Login** – Users should be able to create an account, log in securely, and manage their profile..
- **Admin Authentication** – Admins must log in through a secure interface to manage system data and user accounts.
- **Data Storage and Retrieval** – Submitted data must be stored in a database and be retrievable by users and administrators.
- **Product Browsing and Details View** – Users can browse through product categories and view detailed information, including specifications, images.
- **Admin Dashboard** – Admins can manage product listings, stock levels, categories, discounts, and user queries.
- **Shopping Cart Management** – Users can add or remove products to/from the cart using drag-and-drop or click-based options.

NON-FUNCTIONAL REQUIREMENTS:

- **Usability** – The system should have a clean, user-friendly interface that is easy to navigate for all users.
- **Performance and Scalability** – The platform should handle a growing number of users and products without performance degradation.
- **Availability** – The system should be accessible 24/7 with minimal downtime.

IV. HARDWARE AND SOFTWARE REQUIREMENTS

- **Frontend:** HTML, CSS, Bootstrap
- **Backend:** PHP
- **Database:** MySQL
- **Hardware:** 20GB free disk space, Processor: Intel Core i3 (minimum)

These are the key requirements needed to develop the web project, "Online Electrical and Hardware Website". By implementing these features, the project will become functional, user-friendly, and innovative. It will also provide hands-on experience in designing, coding, and managing a web-based system, helping to enhance web development skills while addressing the needs of employees.



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V. BLOCK DIAGRAM

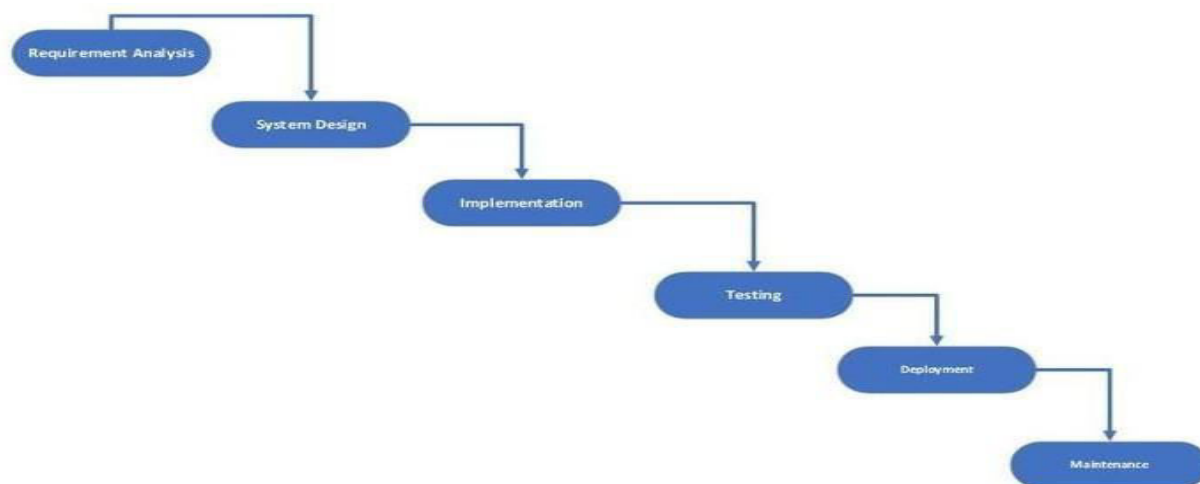


Figure 1: Block Diagram

This Block Diagram Gives the overall implementation of the “Online Electrical And hardware Website”.

DESIGNING PHASE:

USERFLOW DIAGRAM:

LEVEL 0:

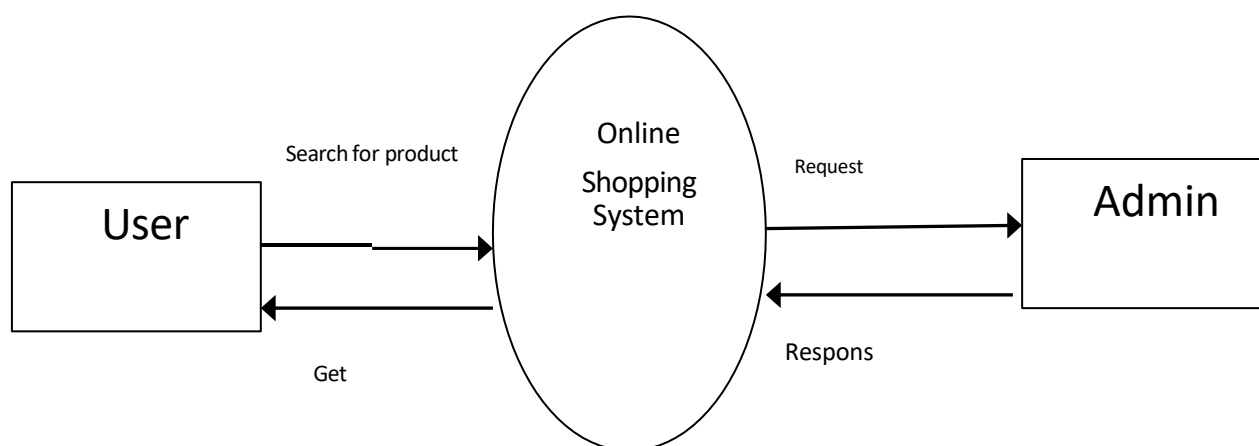


Figure 2: User Flow Diagram – level 0



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Level 1:

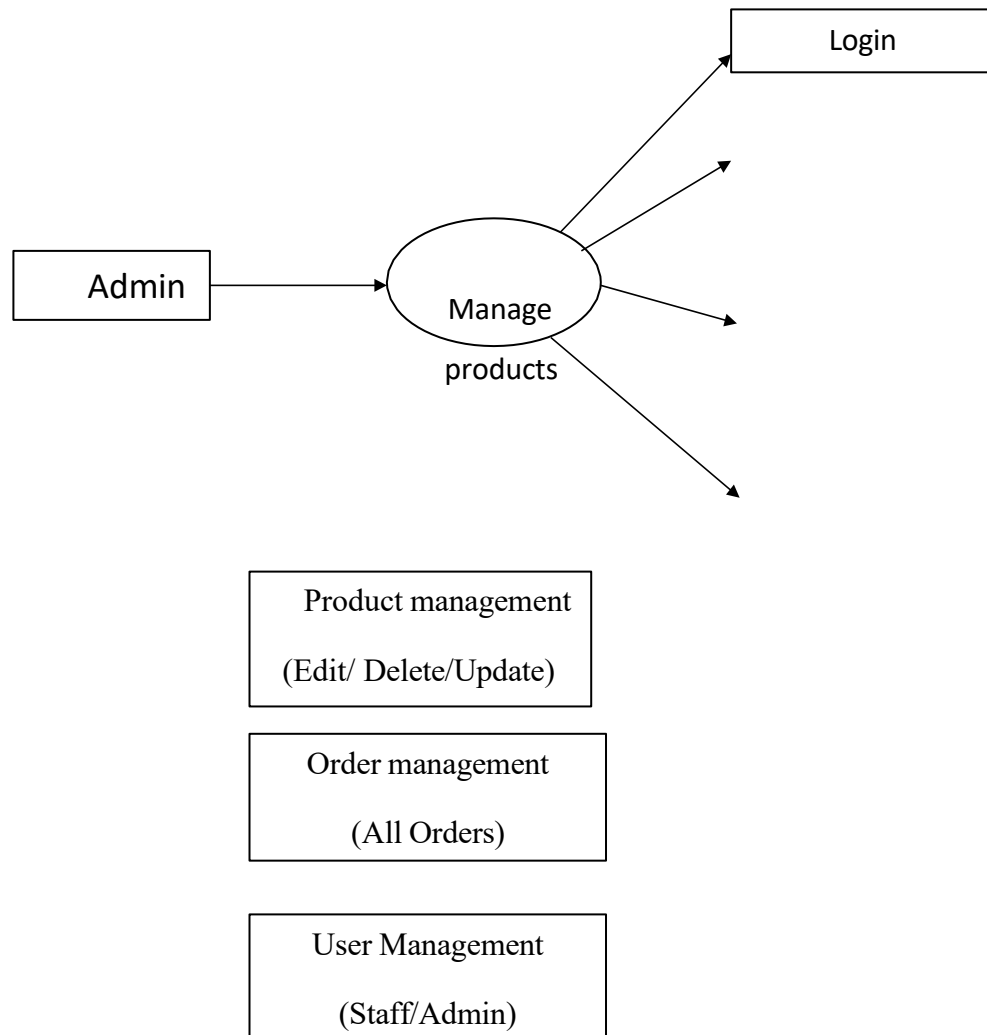


Figure 3: User Flow Diagram – level 1

User:

Can search for products.

Receives search results from the system.

Admin:

Sends requests (like adding products or managing orders).

Gets responses back (like confirmation or status).

The Online Shopping System is the central processing unit, connecting users and admins.

Level 2 – Admin Detailed Flow

This level explains the Admin's role:

Admin logs in and accesses the Manage Products function, which includes:

Product Management – Add, edit, delete, and update products.

Order Management – View and handle all user orders.

User Management – Manage staff and admin users.



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VI. OUTPUT

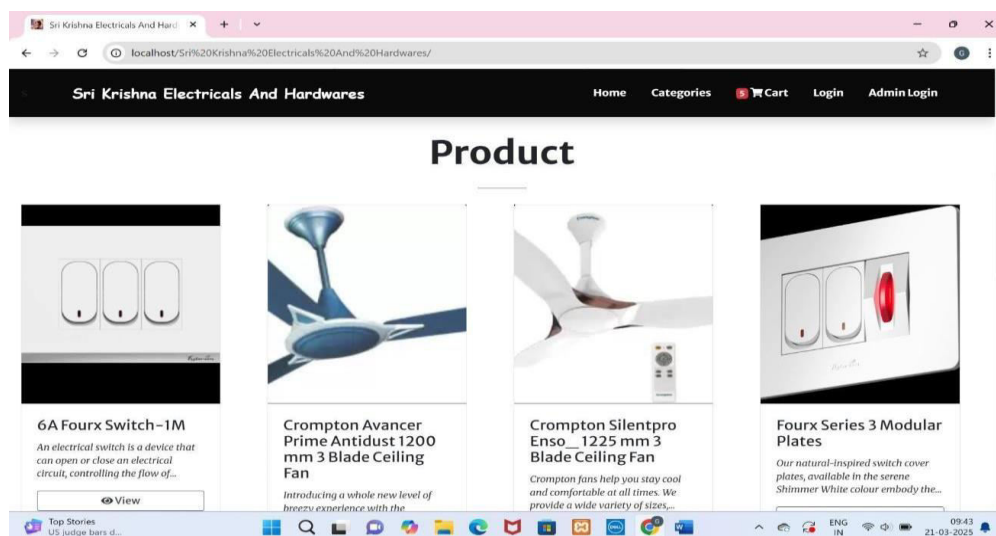
HOME PAGE



Figure 4: Home Page

PRODUCT DETAIL VIEW

Figure 5: Product Detail View





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ADMIN LOGIN PAGE

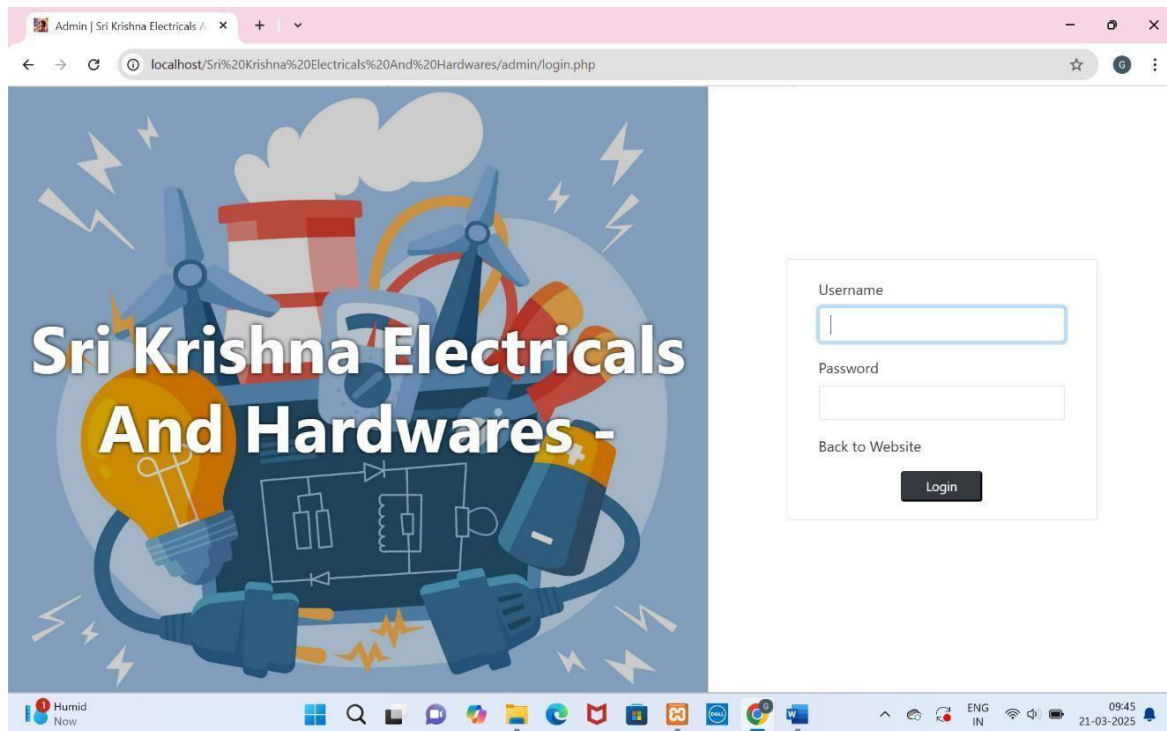


Figure 7: Admin Login Page

ADMIN ADD ITEM

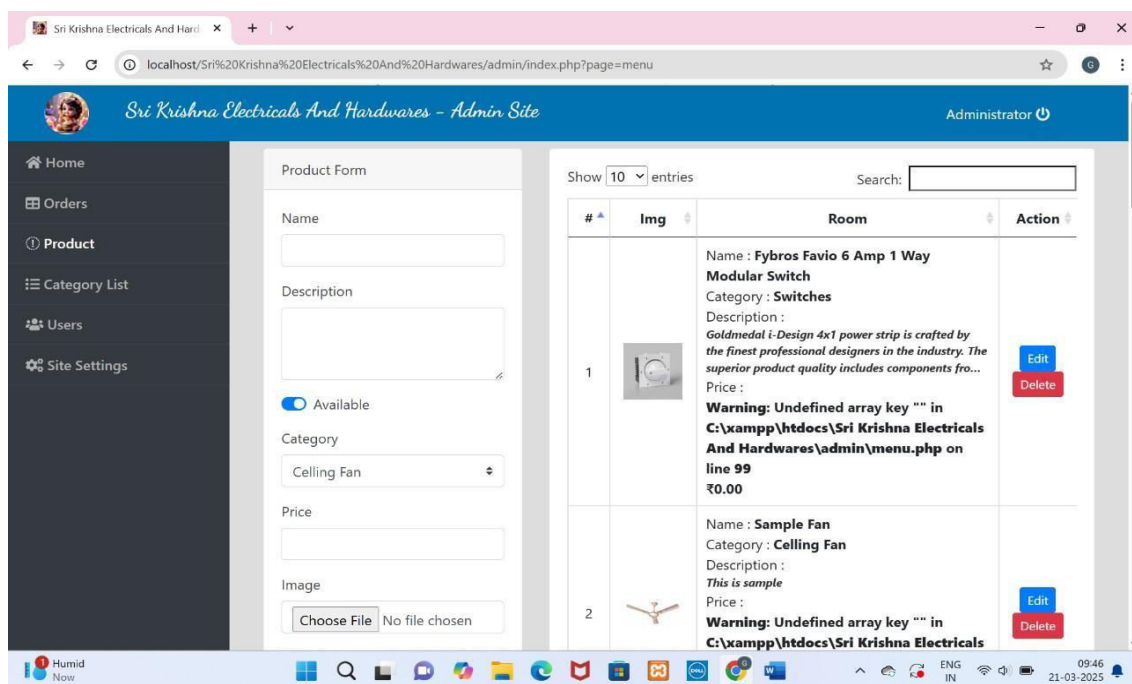


Figure 9: Add Item



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ADMIN ORDER MANAGEMENT

#	Name	Address	Email	Mobile	Status	
1	Gowtham C	Sri Krishna Electricals And Hardwares247654	test13@gmail.com	t712875328	Confirmed	View Order Delete
2	akilan v	coiminator	akilan@gmail.com	t712875328	Confirmed	View Order Delete
3	Gowtham C	Sri Krishna Electricals And Hardwares	test134@gmail.com	987654322	For Verification	View Order Delete
4	Gowtham C	Sri Krishna Electricals And Hardwares	akilaan@gmail.com	9361079302	Confirmed	View Order Delete

Figure 11: Admin Order Management

VII. SCOPE OF PROJECT

The scope of this project is to design and develop a comprehensive and user-friendly web-based platform specifically tailored for the online sale of electrical and hardware products. The system will serve both casual buyers and professional users, offering a wide range of electrical tools, components, and hardware supplies. The platform will allow users to browse, search, filter, and purchase products with ease, while also providing detailed information such as specifications, images, availabilities.

The scope includes:

User Management: Secure registration, login, and profile management.

Admin Capabilities: A dedicated admin panel for reviewing, approving, and managing orders and product Management. The platform aims to be adaptable for organizations seeking to digitize and streamline internal service processes, with future enhancements including mobile app support and AI-based analytics.

VIII. CONCLUSION

The "Online Electrical and Hardware Website" web-based application can be further enhanced with several additional features to improve the user experience and make it more interactive and efficient. Personalized recommendations powered by machine learning can suggest products based on a user's preferences or previous purchases, creating a more tailored shopping experience. Real-time stock availability ensures that users are informed about product status, preventing disappointment over out-of-stock items. Smart filters and sorting options allow users to refine their searches based on specific criteria like price, brand, and ratings, making it easier to find the right product. A product comparison tool can also be integrated, enabling users to compare products side by side on key specifications. Secure payment gateway integration ensures safe transactions, while order tracking and notifications provide real-time updates on the status of purchases.

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