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BuildNBuy E-Commerce Webapp

Sahebrao Chafekar[1], Ms. Nitu Pariyal[2]
[1]*B.Tech Student, Computer Science Department, MGM's College of Engineering*
[2]*Guide, Asst. Prof. (M.Tech..), Dept. of Computer Science & Engg., MGM's College of Engineering*

Abstract: ***This paper introduces a fully functional online web portal that supports user registration, product purchasing and admin management. Waxpoetic The site allows users to create a detailed profile with a resume, experience and programming skills, use the profile for tailored services or for jobs. Visitors can log into their accounts, shop through a categorized product directory, control cart, check in new orders, and get in contact with you through a contact form. From an administration standpoint, the portal contains a comprehensive set of tools to manage your users, products, categories, orders and order statuses. Developed with HTML, CSS, JavaScript, PHP and MySQL, it protects data processing through password hash, input control and session management. We have several improvements in the pipeline, like payment gateway integration, personalized recommendations, or job matching using user profiles. This full-featured scalable platform is designed for optimizing e-commerce functionality for both users as well as administrators.***
Keywords: PHP, MySQL, HTML, CSS, JavaScript, Bootstrap.

I. INTRODUCTION

With e-commerce growing rapidly, the way users interact with products and services online has transformed, setting a higher standard for secure, seamless and personalised shopping experience. BuildNbuy is a customizable framework built to meet these changing requirements which includes standard ecommerce features with powerful user profiling and membership management features and priveledges and also to have good admin control. "Built to source detailed user profiles (including resumes, work history, and coding abilities), BuildNbuy is positioned to offer robust services (like individualized product picks or job matches) that will provide an optimal user experience not achievable with traditional online shopping.

The platform features a secure and user-friendly interface, allowing users to register, browse products, manage shopping carts, track orders, and communicate with customer support seamlessly. On the administrative side, a powerful control panel enables comprehensive management of users, orders, and product catalogs, along with real-time status updates. Built with technologies like HTML, CSS, JavaScript, PHP, and MySQL, BuildNbuy prioritizes scalability and security through mechanisms such as password hashing, session management, and input validation. By integrating career-related data with e-commerce, BuildNbuy offers a unique, multifunctional online portal that combines usability with future growth opportunities.

II. LITERATURE REVIEW

A. User Profiling and Personalization

Modern e-commerce platforms are increasingly incorporating detailed user profiles that go beyond basic personal information. Collecting data such as resumes, years of experience, and programming skills allows platforms to provide personalized services and recommendations. This trend supports enhanced user engagement and opens new avenues like job matching alongside traditional shopping experiences.

B. Comprehensive Administrative Control

Effective management of users, orders, products, and categories is critical for the smooth operation of online portals. Research highlights the need for robust admin panels that offer real-time order tracking and status updates, enabling better control over the system and improved customer satisfaction through timely order processing and communication.

C. Security and Data Integrity

Security remains a fundamental concern in web portals, especially those handling sensitive user data. Techniques such as password hashing, session management, and input validation are essential to protect user privacy and maintain data integrity. These measures prevent unauthorized access and mitigate common vulnerabilities like SQL injection and cross-site scripting (XSS).

D. Research Gap

1) Lack of Integration Between User Skills and E-commerce: Current platforms rarely combine detailed user professional data with shopping experiences to provide personalized job offers or skill-based recommendations.

2) Insufficient Advanced Admin Controls: Many systems lack comprehensive, real-time management tools for admins to efficiently handle users, orders, and product categories in one unified panel.

3) Inadequate Focus on Security in Multi-Feature Portals: There is a need for stronger, holistic security approaches that protect sensitive user data while supporting complex functionalities like file uploads and dynamic order tracking.

III. METHODOLOGY

The development of the BuildNBuy platform followed a structured methodology to ensure clear feature implementation, user-focused design, and secure backend operations. The system was divided into two core components: frontend and backend, with clearly defined responsibilities and interactions.

1) Frontend Development: The frontend was designed to provide a responsive, user-friendly interface for both users and admins. Special focus was placed on ease of navigation, form validation, product visibility, and order tracking. Technologies like HTML, CSS, JavaScript, and Bootstrap were used to develop the user and admin interfaces, ensuring cross-browser compatibility and mobile responsiveness.
2) Backend Development: The backend handled all server-side logic, database interactions, session control, authentication, and file management (such as resume uploads). It was developed using PHP and MySQL to create a reliable and scalable structure. Secure practices such as password hashing, session handling, and data validation were implemented to protect sensitive user data.

A. Key Features

User Registration: Detailed signup capturing resume, experience, age, and skills.
Secure Login/Logout: Session-based authentication with password encryption.
Product Catalog and Cart: Users can browse products, add to cart, and place orders.
Order Tracking: Users can track order status in real time using order ID.
Admin Panel: Admins can manage users, products, categories, and order statuses.
Contact System: Allows users to send inquiries directly to admins.

B. Development Tools and Technologies

A combination of client-side and server-side technologies was used for full-stack development.

1) Frontend Development:
- Languages: HTML, CSS, JavaScript
- Frameworks/Libraries: Bootstrap for responsive design
- Features:
  1. Form validation
  2. Interactive UI components
  3. Navigation and real-time feedback

2) Backend Development:
- Languages: PHP
- Database: MySQL
- Key Functionalities:
  1. User authentication and session management
  2. File upload and secure storage (resumes)
  3. CRUD operations for products, categories, orders, and users
  4. Role-based access control for admin and user modules

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IV. WORKING FLOW

The BuildNBuy platform follows a structured flow that separates responsibilities between Users and Admins, ensuring an organized and secure shopping and management experience.

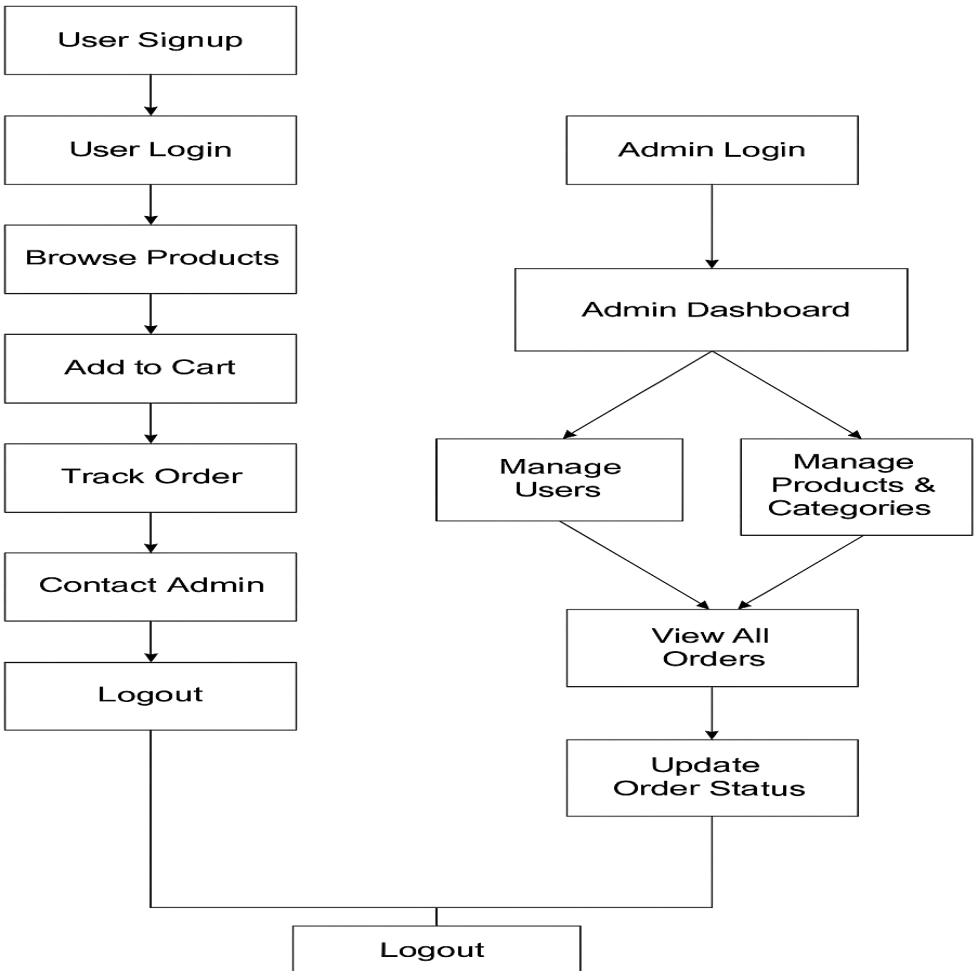

Fig 1.1. Flow Chat

A. User Authentication

Objective:

Ensure that users can securely register and log in to the BuildNBuy platform.

Process:

New users register by providing personal and professional details such as name, mobile number, email, password, experience, and resume upload. These details are securely stored in the backend database (e.g., MySQL). During login, credentials are validated using secure password hashing. Only authenticated users gain access to their dashboard; if credentials are invalid, an error message is displayed.

B. Homepage & Navigation Lobby

Objective:

Provide users with an intuitive interface to navigate products, categories, cart, orders, and contact features.

Process:

After successful login, the user lands on the homepage. This page serves as the main lobby of the portal, showcasing featured products, categories, offers, and navigation links. Users can choose to browse products, view cart, track orders, or contact support — all accessible via a responsive navigation bar.

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C. Product and Order Module

Objective:

Allow users to browse products, manage their shopping cart, place orders, and track order status.

Process:

Users can browse a catalog of categorized products. After selecting products, they add them to the cart, adjust quantities, and proceed to checkout. On placing the order, the backend stores product details, quantities, total cost, and assigns a unique order ID. Users can then monitor order status in real-time — pending, shipped, delivered, or canceled — via the "My Orders" and "Track Orders" sections.

D. Resume Upload and Profile Management

Objective:

Allow users to upload resumes and manage professional details for future job-matching or service personalization.

Process:

During signup or via the profile dashboard, users can upload resumes (PDF/DOC), enter years of experience, age, and list programming languages. Uploaded files are securely stored on the server, and user profiles are saved in the database. Admins can later access these details for analytics or recruitment purposes.

V. RESULTS

The BuildNBuy web portal was successfully developed and deployed with a secure, user-friendly interface. Key features such as registration, login, profile management, product browsing, cart functionality, and order tracking operate smoothly. Users can easily register, upload professional details, and place orders.

The admin panel enables efficient management of users, products, categories, and orders, with real-time status updates. Security mechanisms like password encryption, session control, and validated file uploads ensure data privacy. Overall, BuildNBuy delivers a responsive, scalable, and feature-rich e-commerce solution that can evolve to include job recommendations and personalized shopping experiences.

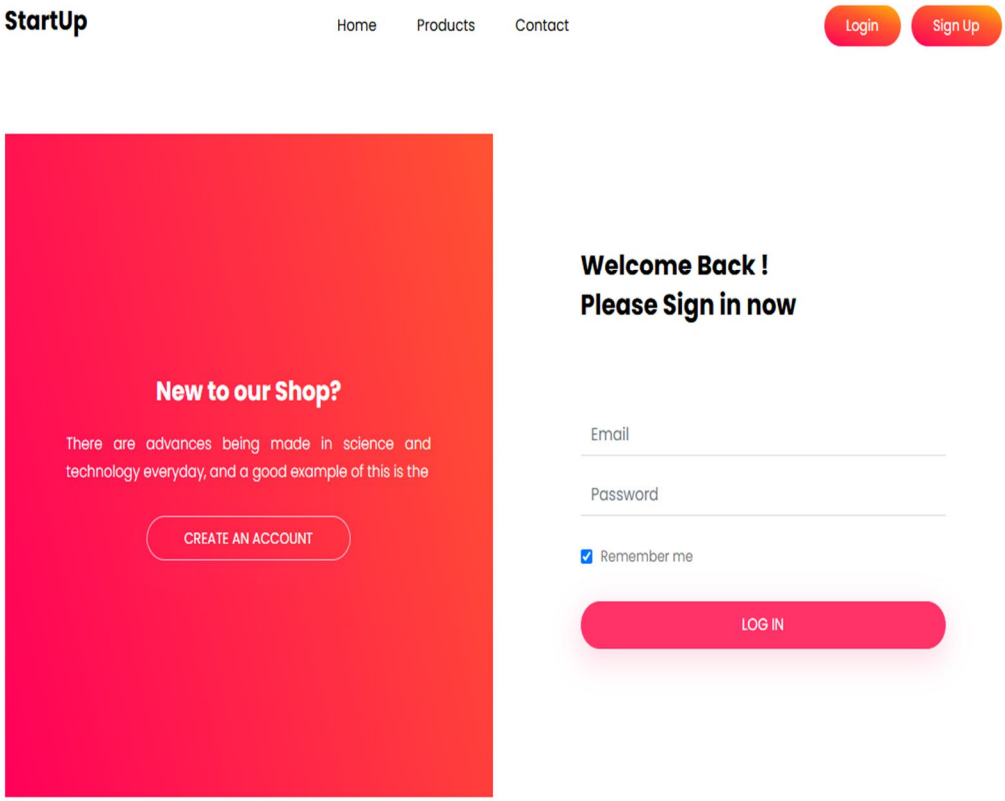

Fig 1.2 Sigup Page

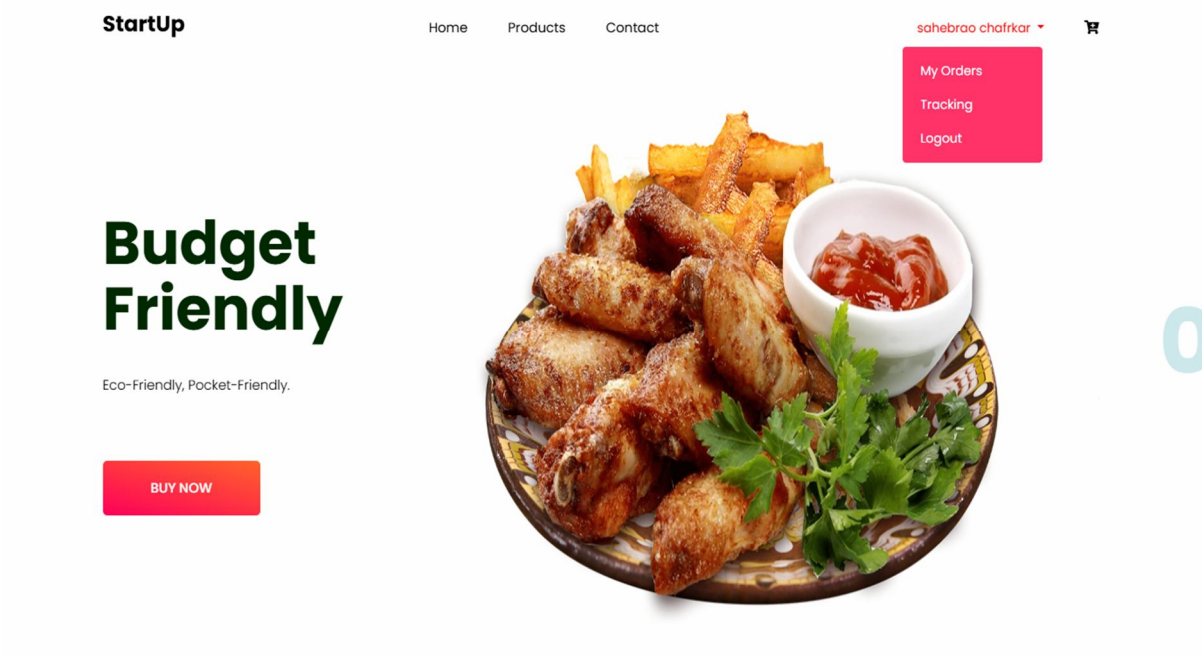

Fig 1.3 Home Page

VI. CONCLUSION

The developed BuildNBuy platform effectively addresses the evolving needs of modern digital commerce by combining user profiling, secure authentication, product ordering, and administrative controls within a unified web-based system. This all-in-one solution eliminates the need for separate platforms to manage shopping, user data, and backend administration, thereby streamlining the entire user and admin experience.

The use of robust technologies such as HTML, CSS, JavaScript, Bootstrap for frontend and Node.js, Express.js, and MySQL for backend ensures high performance, scalability, and secure data handling. Real-time order tracking, resume upload, and dynamic product management features further enhance usability for both users and administrators.

The system's clean UI, responsive design, and structured navigation support a seamless experience across devices, enabling wide accessibility. The admin panel simplifies the management of users, orders, and product categories in real time, contributing to overall operational efficiency.

This research project demonstrates the potential of customized e-commerce solutions tailored to user-specific data and skill integration. By combining professional profiling, advanced ordering systems, and admin functionalities, BuildNBuy offers a scalable, future-ready platform that bridges the gap between traditional e-commerce and personalized user interaction.

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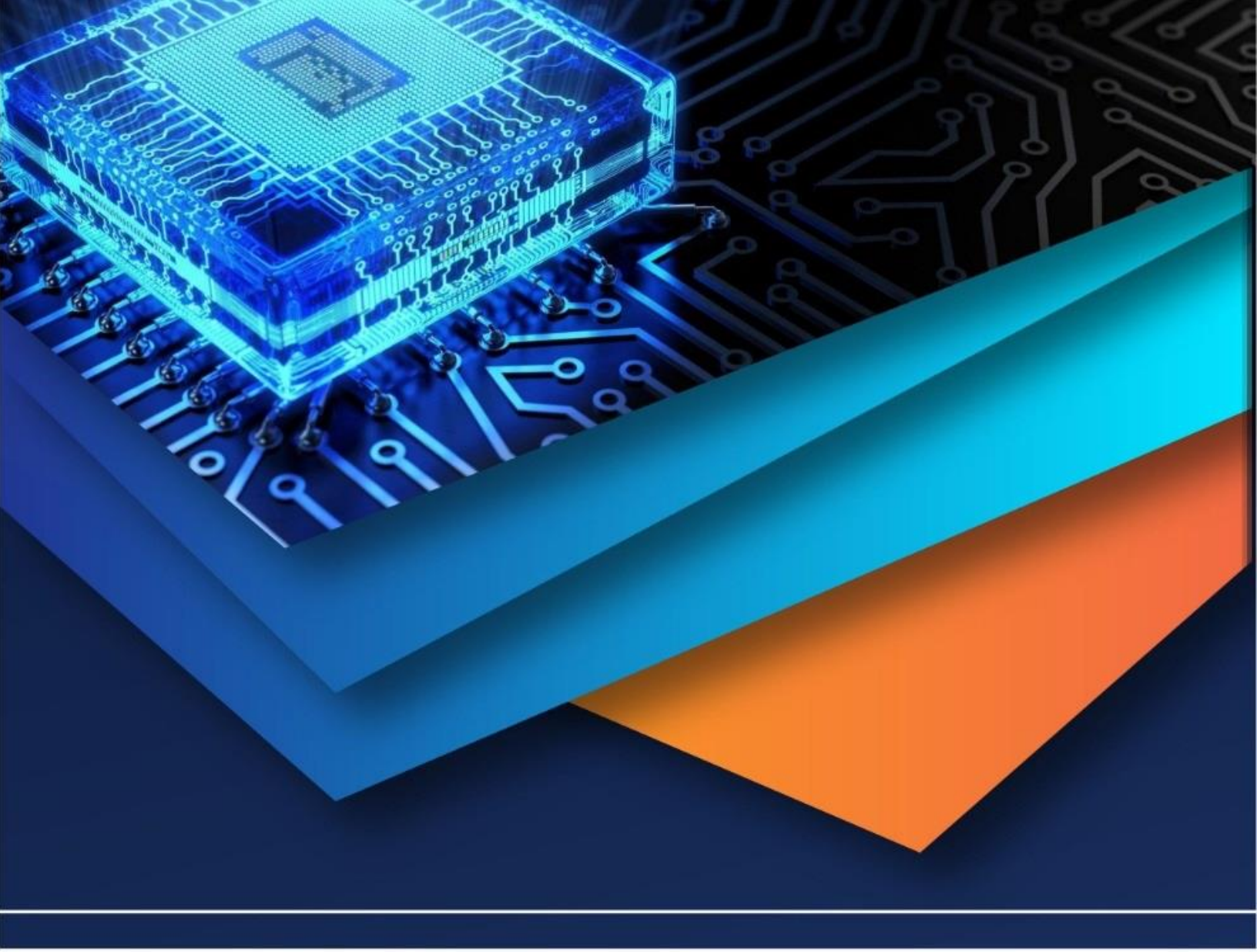

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