Title : Development of an E-Commerce Web Application for Chili Products Using the MERN Stack

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ABSTRACT

The development of the Chili e-commerce platform was initiated to address the limitations of traditional methods for managing and selling chili-based products, which frequently suffer from inefficiencies and limited accessibility. The primary objective of this project is to engineer a comprehensive web application that facilitates robust product and order management for administrators, while providing consumers with a seamless interface to search for items, access product details, and execute purchase transactions. The system architecture employs the MERN stack (MongoDB, Express.js, React.js, and Node.js). The front-end utilizes React.js to deliver a responsive, user-centric interface designed to optimize the consumer experience. The back-end infrastructure is built upon Node.js and Express.js, integrating a MongoDB database to efficiently process, store, and manage data pertaining to products, users, and transactions. The development lifecycle was executed within the projected timeframe and incorporated comprehensive unit and system testing. Evaluation results demonstrate that the application operates reliably and fulfils all predefined objectives. Customers can intuitively navigate the product catalogue and place orders, while administrators are equipped to seamlessly oversee inventory and monitor transactions. In conclusion, this platform significantly enhances the operational efficiency of online commerce for these products, aligning with contemporary digital retail demands.