Retail Barcode System: A Web-Based Product Identification and Pricing System

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Abstract: *The retail industry requires fast, accurate, and scalable systems for product identification, pricing, and inventory management, especially in high-volume environments like supermarkets and department stores where traditional manual billing is time-consuming and prone to errors. With rapid digital transformation, barcode-based automation integrated with web technologies has emerged as a reliable solution. This paper presents the design and implementation of a web-based Retail Barcode System that automates product identification, pricing, billing, and inventory updates by retrieving real-time product information from a centralized database. The system ensures accurate pricing, efficient stock control, reduced checkout time, minimized pricing discrepancies, improved inventory visibility, and enhanced overall operational efficiency.*

Keywords: Retail Barcode System, Web-Based Application, Product Identification, Pricing System, Inventory Management, Barcode-based Automation