

Web Based Internet Banking Management System with Secure Transactions

Prof. Bramhdev Wadibhasme, Miss Diksha Karpe, Miss. Aastha Nikhare

Guide, Computer Science and Engineering Department

Student, Computer Science and Engineering Department

Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur, India

Abstract: *The rapid digital transformation in the banking sector has increased the demand for secure, scalable, and user-friendly online banking systems. Traditional banking processes often suffer from delays, manual errors, limited accessibility, and high operational overhead, which makes digital banking platforms essential for modern financial institutions. This research paper presents the design and development of a Web-Based Internet Banking Management System using Java Full Stack technologies, including Spring Boot, MySQL, and RESTful Web Services. The primary objective of the system is to provide customers with a reliable platform to perform banking operations such as secure login, balance inquiry, fund transfer, and transaction history retrieval with enhanced data confidentiality and integrity. A strong emphasis is placed on security, as financial applications are highly vulnerable to cyber threats. The system incorporates password hashing, input validation, prepared statements to prevent SQL Injection attacks, and secure session handling mechanisms to ensure safe user authentication and data transmission. The architectural design follows a Three-Tier Model, separating the presentation layer, business logic layer, and data layer for improved scalability, modularity, and maintainability..*

Keywords: *digital transformation*

