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Secure Online Transaction Management System

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Abstract - The Secure Money Transaction System ensures safe, fast, and reliable online financial operations using AES and RSA encryption to protect sensitive data. It integrates multi-factor authentication and fraud detection to prevent unauthorized access and cyber-attacks. Developed with Java and MySQL, it provides a scalable and compliant platform for secure transactions. Performance testing confirms high efficiency and near-zero data breach risk. Future upgrades include blockchain validation, biometric authentication, and AI-based fraud prediction.

Key Words: Secure online transaction, AES-RES encryption, Multifactor authentication, Fraud detection, Blockchain integration.

1.INTRODUCTION

Secure online money transfer is vital in today's digital era due to the rise of online banking and e-commerce. Cyber threats like phishing, identity theft, and unauthorized access endanger financial safety. The Secure Money Transaction System uses AES and RSA encryption with strong authentication and fraud detection for protection. Built with Java Enterprise and secure databases, it ensures reliable, high-performance transactions. Real-time monitoring and scalability make it a fast, secure, and user-friendly financial solution.

2. Body of Paper

The Secure Money Transaction System is developed using a layered security approach that integrates encryption, authentication, and fraud detection to ensure safe and reliable digital transactions. Each transaction is validated, encrypted, and monitored in real time to prevent unauthorized access or data breaches. The system employs AES and RSA encryption algorithms to safeguard financial data by securing user credentials and transaction details during both transmission and storage. It is built using Spring Boot for backend processing, API security, and service management. MySQL is used for secure storage and efficient handling of user and transaction data. This combination ensures high scalability, strong data integrity, and consistent system performance. Overall, the architecture provides a secure and efficient foundation for modern online financial operations.

Table -1: FLowchart

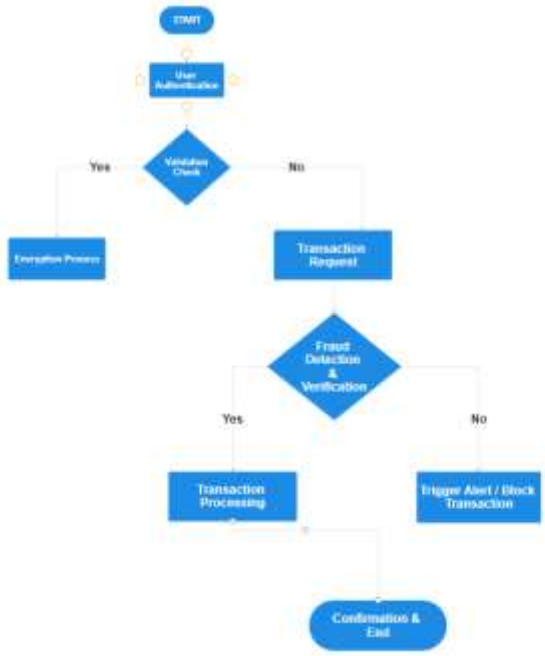

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Fig -1: Home Page

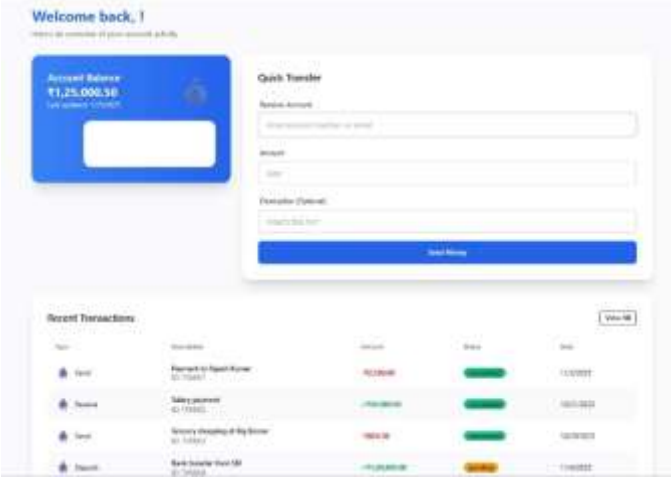

Fig -1: Dashboard

3. CONCLUSIONS

The Secure Money Transaction System provides a highly reliable and secure platform for digital financial operations. By integrating AES and RSA encryption, it ensures confidentiality and protection of user data. Multi-factor authentication and fraud detection enhance trust and reduce risks of cyber threats. The system's Java-based backend and MySQL database deliver speed, scalability, and accuracy in every transaction. Overall, it offers a safe, efficient, and future-ready solution for modern online money transfers.

ACKNOWLEDGEMENT

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