CREDAI - ALTERNATIVE CREDIT SCORING FOR THE INFORMAL `ECONOMY

ABSTRACT

CredAI represents a transformative step toward bridging the gap between informal sector workers and the formal financial ecosystem. By leveraging alternative financial data such as UPI transactions, utility bill payments, and mobile recharge patterns, the system offers a novel approach to credit scoring that is both inclusive and data-driven. This innovation is particularly vital in developing countries like India, where millions of gig workers, freelancers, and small vendors remain excluded from traditional credit systems due to the absence of formal income documentation and credit history.

The platform's intelligent architecture combines rule-based logic and machine learning algorithms to assess creditworthiness in a more holistic manner. Users can input their financial behavior through a user-friendly interface built with React.js and Bootstrap, while the backend—powered by Java Spring Boot and Python Flask—processes the data to generate a personalized credit score. This score is then categorized into risk levels (Low, Moderate, High), helping both users and lenders make informed financial decisions. The downloadable credit report and tailored credit improvement suggestions further enhance the system's utility.

CredAI also includes an admin dashboard for managing user data and system operations, ensuring scalability and ease of maintenance. The use of modern development tools like IntelliJ IDEA, VS Code, Postman, and Git ensures a robust and agile development process. By integrating MySQL for data storage and offering secure user authentication, the platform maintains both performance and data integrity.

Ultimately, CredAI is more than just a credit scoring tool—it's a mission-driven initiative aimed at financial empowerment. By recognizing and validating the financial behaviors of informal workers, it opens doors to loans, insurance, and other financial services that were previously inaccessible. This project not only promotes financial inclusion but also sets a precedent for how AI and alternative data can reshape the future of credit evaluation.

In conclusion, CredAI stands as a scalable, practical, and socially impactful solution to one of the most pressing challenges in financial access. It redefines creditworthiness through innovation and empathy, offering informal sector workers the opportunity to participate in the formal economy with dignity and confidence.