



Innovate4FinLit

Game Challenge

Innovating Game-Based Solutions for Financial Literacy

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Problem Statement : The lack of practical, accessible, and behavior-driven financial education—especially in low-connectivity environments—creates a need for a scalable, offline-first gamified platform that enables users to learn financial decision-making through real-world simulations.



Brief about the Idea:

The idea is to develop a **scalable, offline-first gamified financial literacy platform** that helps users learn money management through **real-world financial simulations** rather than theoretical lessons. The platform allows users to manage a virtual income, make financial decisions related to budgeting, savings, credit, insurance, investments, and digital safety, and observe the **short-term and long-term consequences** of those decisions.

Designed as a **mobile-first Progressive Web App**, the solution works effectively in **low-internet and rural environments**, with offline gameplay and secure data synchronization when connectivity is available. The system follows a **modular backend architecture**, enabling scalability across multiple user groups such as students, young adults, women, and farmers.

By combining **behavior-driven learning, gamification, and scalable software engineering**, the platform enables users to build practical financial skills, improve decision-making behavior, and become financially empowered in real life.



Opportunity should be able to explain the following:

1. How is it different from existing solutions?

Most existing financial literacy platforms rely on **theory-based content, videos, or quizzes** that explain concepts but do not prepare users for real-world financial decisions. These solutions also depend heavily on **continuous internet access**, making them unsuitable for rural and low-bandwidth environments.

Our solution is different because it uses **real-life financial simulations and decision-driven gameplay** instead of static learning. It is designed as an **offline-first platform**, allowing users to learn anytime, anywhere, without being dependent on internet connectivity.

2. How will it solve the problem?

The platform solves the problem by enabling users to **learn by doing**. Users manage a virtual financial life, make decisions related to budgeting, savings, credit, insurance, investments, and digital safety, and immediately see the **consequences of their choices**. This behaviour-driven approach helps users understand financial trade-offs, avoid common mistakes, and gradually develop better financial habits. Offline support ensures accessibility across diverse Indian conditions, while a scalable backend allows the system to grow with increasing users and scenarios.

3. USP (Unique Selling Proposition) of the Solution

A behaviour-driven, offline-first gamified platform that teaches financial literacy through real-world decision simulations, making learning practical, accessible, and scalable.

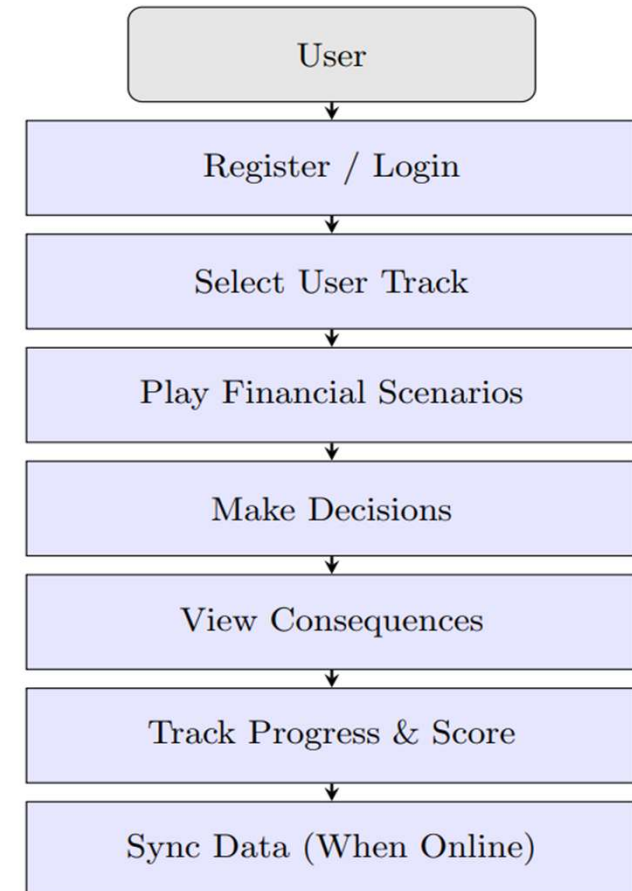
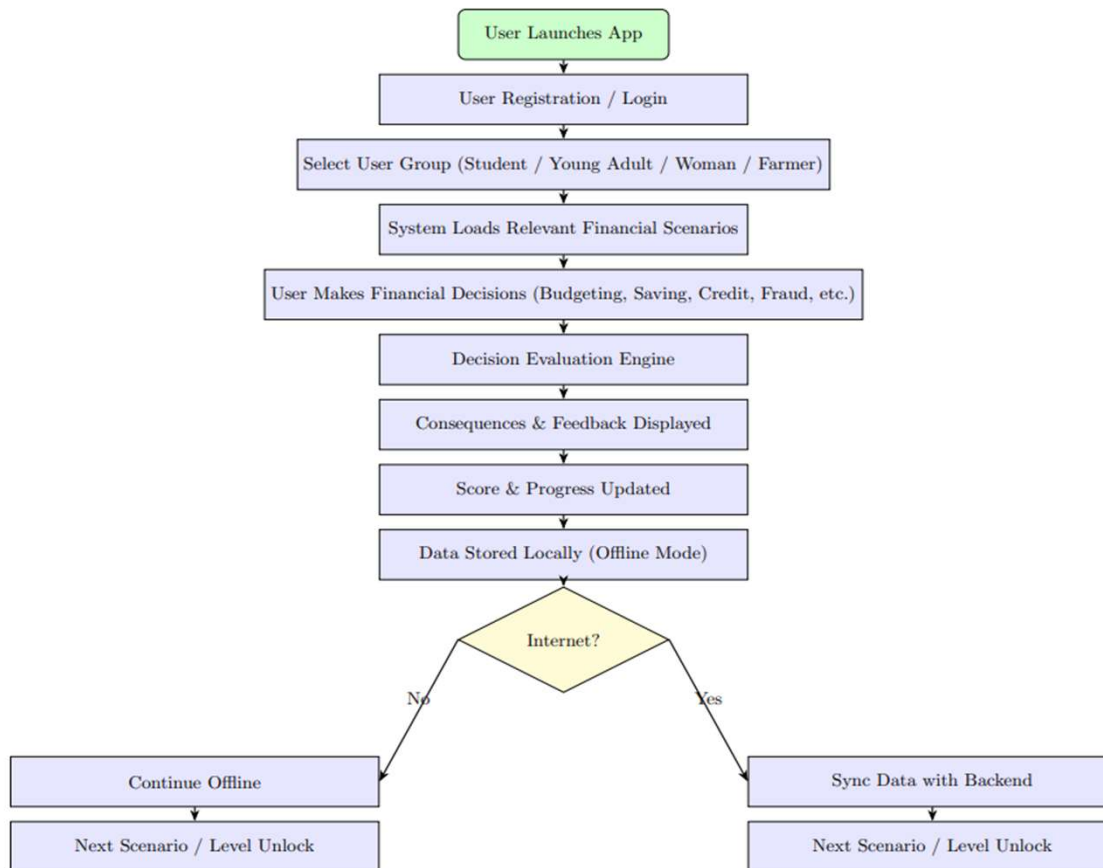


List of features offered by the solution

- ✓ Offline-first financial simulations
- ✓ Decision-based learning with real consequences
- ✓ Gamified progress tracking (levels, scores, rewards)
- ✓ Fraud awareness & digital financial safety simulations
- ✓ Multi-user group support (Student, Young Adult, Women, Farmer)
- ✓ Scalable and extensible backend architecture
- ✓ Low-bandwidth & rural-friendly design
- ✓ Real-time feedback on financial decisions
- ✓ Scenario-based learning instead of quizzes
- ✓ Long-term financial health scoring
- ✓ Secure user authentication & data protection
- ✓ Multilingual support
- ✓ Future-ready AI/ML-based personalization (optional)

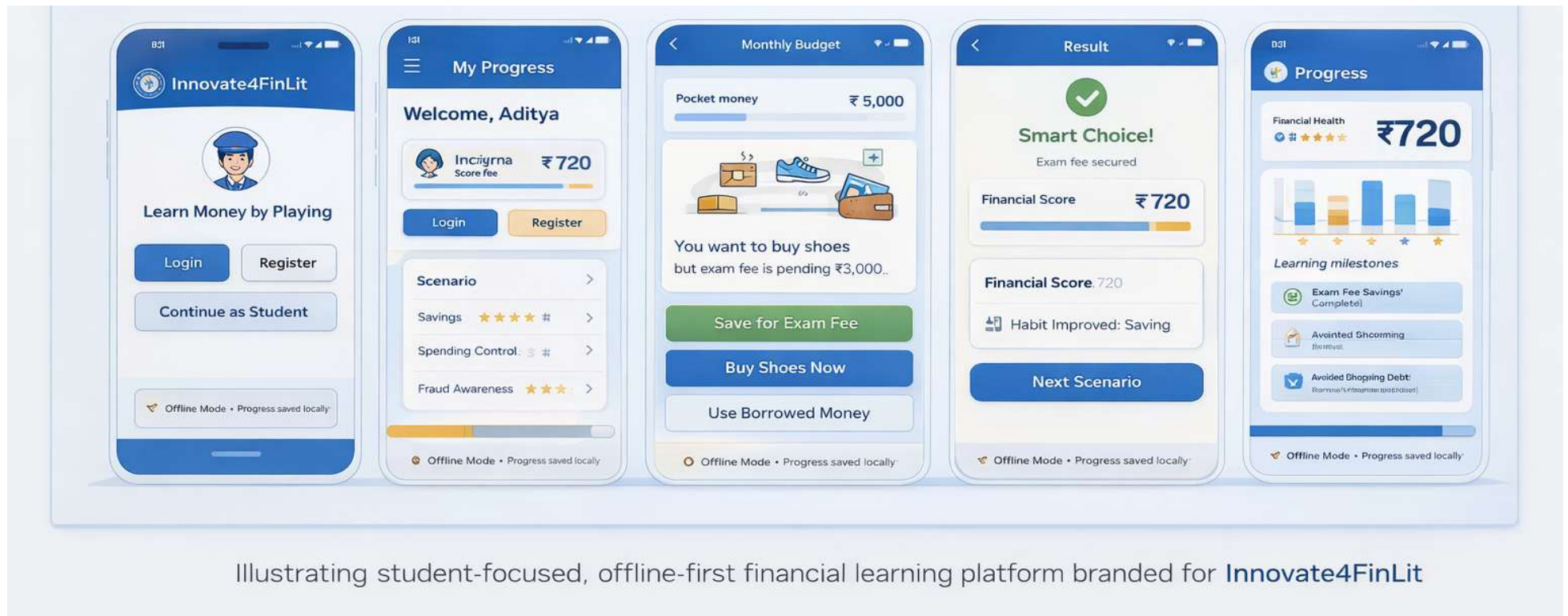


Process flow diagram or Use-case diagram



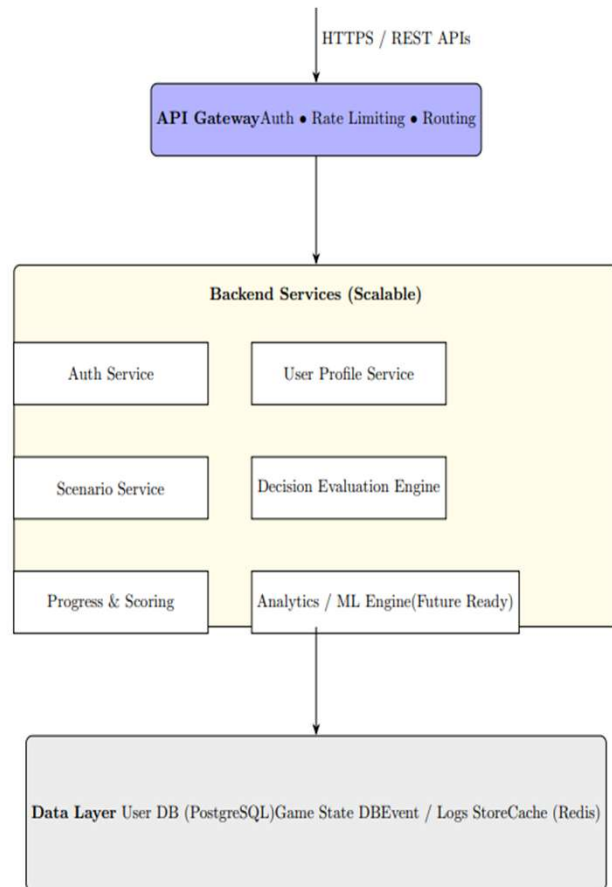


Wireframes/Mock diagrams of the proposed solution





Architecture diagram of the proposed solution





Technologies to be used in the solution:

Frontend / Client

React.js, Progressive Web App (PWA), HTML5, CSS3, JavaScript
Service Workers, IndexedDB (Offline Storage)

Backend / APIs

Node.js, Express.js, RESTful APIs, JWT Authentication
✓

Database & Storage

PostgreSQL, MongoDB, Redis (Caching)

Machine Learning & Analytics (Optional / Future)

Python, Pandas, NumPy, Scikit-learn, Mlflow, FastAPI

Infrastructure & DevOps

Docker, AWS EC2, AWS S3, AWS RDS, Git, GitHub



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THANK YOU

