Saylani Microfinance App Hackathon Plan

Overview

We are organizing a 12-hour hackathon for students who have completed a 13-month MERN stack course. The objective is to develop a microfinance application for Saylani Welfare that offers loans under the Qarze Hasana program. The app will cater to multiple loan categories, include a landing page, and feature both user and admin functionalities.

App Features and Requirements

Loan Categories

The organization offers support in the following categories:

1. **Wedding Loans**
    - Subcategories: Valima, Furniture, Valima Food, Jahez
    - Maximum loan: PKR 5 Lakh
    - Loan period: 3 years
2. **Home Construction Loans**
    - Subcategories: Structure, Finishing, Loan
    - Maximum loan: PKR 10 Lakh
    - Loan period: 5 years
3. **Business Startup Loans**
    - Subcategories: Buy Stall, Advance Rent for Shop, Shop Assets, Shop Machinery
    - Maximum loan: PKR 10 Lakh
    - Loan period: 5 years
4. **Education Loans**
    - Subcategories: University Fees, Child Fees Loan
    - Maximum loan: Based on requirement
    - Loan period: 4 years

User Journey

Landing Page

- Displays loan categories and subcategories.
- Includes a loan calculator where users can:
    - Select a category and subcategory.
    - Input initial deposit.
    - Select loan period.
    - Calculate the estimated loan breakdown.

Application Process

1. **Proceed Action:**
    - Users click the "Proceed" button, which opens a popup.
    - Popup form fields:
        - CNIC
        - Email
        - Name
2. **Account Creation:**
    - User receives an email containing a password.
    - User logs in using the provided password.
    - User is prompted to generate a new password.
3. **Loan Request Submission:**
    - Users view their loan request details.
    - Users provide additional details, including:
        - Two guarantors' information (Name, Email, Location, CNIC).
        - Statement and salary sheet (optional).
        - Personal information (Address, Phone Number, etc.).
4. **Slip Generation:**
    - Once the application is complete, the system generates a slip containing:
        - Token number
        - QR code
        - Appointment details (date, time, and office location).
    - Users can download the slip to bring to the organization office.

Admin Panel

Features

1. **Application Management:**
    - View all applications submitted by users.

    - Filter applications by:
        - City
        - Country
    - Add token numbers to applications and view their details.
2. **Loan Details:**
    - View details of loans requested, including category, subcategory, and loan amount.
    - See guarantor details and user-provided information.
3. **Appointment Scheduling:**
    - Automatically schedule user appointments based on available slots.

Development Structure

Frontend

- **Technologies:** React.js
- **Pages:**
    - Landing Page
    - Calculator Page
    - User Registration/Login
    - Loan Request Form
    - Dashboard (User & Admin)

Backend

- **Technologies:** Node.js with Express
- **Database:** MongoDB
- **Features:**
    - User Authentication
    - Loan Request Handling
    - Guarantor Information Storage
    - Appointment Scheduling

API Endpoints

1. **User Endpoints:**
    - POST: Register user (CNIC, Email, Name)
    - POST: Submit loan request
    - POST: Add guarantor information
    - GET: Fetch loan details

    - GET: Generate slip with QR code and appointment details
2. **Admin Endpoints:**
    - GET: View all applications
    - PUT: Update application status
    - POST: Add token numbers to applications
    - GET: Filter applications by city/country

Project Workflow

1. **Design Phase:**
    - Create wireframes for the landing page, calculator, and user journey screens.
    - Finalize the database schema for users, guarantors, loan details, and appointments.
2. **Development Phase:**
    - Implement frontend components for the user journey.
    - Develop backend APIs for user authentication, loan requests, and admin functionalities.
    - Integrate QR code generation and appointment scheduling.
3. **Testing Phase:**
    - Test user flows for loan request submission and account creation.
    - Validate data integrity for guarantors and loan details.
4. **Deployment:**
    - Deploy the application on a platform such as Vercel or AWS.

Timeline for the Hackathon

1. **Hour 1-3:**
    - Set up project structure and basic frontend/backend integration.
    - Implement the landing page and calculator.
2. **Hour 4-6:**
    - Create user registration and login functionalities.
    - Develop loan request form and submission flow.
3. **Hour 7-9:**

    - Implement QR code generation and slip download.
    - Build admin panel functionalities.
4. **Hour 10-12:**

    - Test the complete application.
    - Deploy the project and prepare presentations.

Expected Deliverables

1. Fully functional microfinance app.
2. User-friendly landing page with loan categories and calculator.
3. Complete user journey for loan request submission.
4. Admin panel for managing applications and appointments.
5. Deployed app ready for presentation.

Hackathon Rules and Guidelines

1. Teams will consist of 4-5 members.
2. All code must be written during the hackathon.
3. Use of any pre-built templates or libraries must be disclosed.
4. Judges will evaluate based on:
    - Functionality
    - User experience
    - Code quality
    - Presentation.

Conclusion

The microfinance app aims to simplify the loan application process for users while ensuring efficient management for the organization. This hackathon will test students' MERN stack knowledge and provide a practical solution for Saylani Welfare's Qarze Hasana program.