Documentation for Farmer Management System

Overview

The Farmer Management System is designed to manage farmers, loans, and reports for a streamlined farming operations workflow. This document serves as a guide for installing the system, setting up the database, and testing its features.

Features

1. **Farmer Management:**

   o   Register new farmers.

   o   View a list of registered farmers.

2. **Loan Management:**

   o   Register new loans for farmers.

   o   Manage loan statuses (pending, approved, rejected, repaid).

   o   Generate loan reports with filters.

3. **Reports:**

   o   View total disbursed loan amounts.

   o   Group loans by statuses (e.g., approved, pending, rejected).

System Setup

1. Prerequisites

Ensure the following software is installed on your system:

- PHP 8.2 or higher

- Composer

- Laravel 8 or higher

- MySQL database

- A web server (e.g., Apache or Nginx)

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2. Installation Steps

1. **Clone the Repository:**

bash

git clone <repository_url>

cd farmer-management-system

2. **Install Dependencies:**

bash

Copy code

composer install

npm install

npm run dev

3. **Set Up Environment File:** Copy the .env.example file and configure your database and application settings.

bash

cp .env.example .env

Update the .env file with:

Dot
env

DB_CONNECTION=mysql

DB_HOST=127.0.0.1

DB_PORT=3306

DB_DATABASE=farmer_management

DB_USERNAME=root

DB_PASSWORD=

4. **Generate Application Key:**

bash

php artisan key:generate

5. **Migrate Database:** Run the migration to set up the database schema.

bash

php artisan migrate

6. **Seed Sample Data (Optional):**

bash

php artisan db:seed

7. **Start the Development Server:**

bash

php artisan serve

Access the application at http://127.0.0.1:8000.

Database Setup

1. Open MySQL and create a database:

sql

CREATE DATABASE farmer_management;

2. Run the migrations to create the required tables.

User Manual

1. Registering a New Farmer

1. Navigate to the **Farmers** section in the sidebar.

2. Click **Register Farmer**.

3. Fill out the form with farmer details:

   o First Name

   o Last Name

   o NRC Number

   o Mobile Number

   o Address

   o Type of Farm

   o Category (Commercial or Subsistent)

4. Click **Register**.

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2. Managing Loans

1. Navigate to the **Loans** section.

2. Click **Register Loan**.

3. Fill in the loan details:

   o Farmer Name (select from the dropdown).

   o Loan Amount.

   o Repayment Duration.

4. Submit the form.

5. Update loan statuses (Approve, Reject, Repay) from the loan list.

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3. Generating Reports

1. Navigate to the **Reports** section under Loans.

2. Use the filter options to:

   o Search by farmer name.

   o Filter by loan status.

3. View total disbursed amounts and loans grouped by status.

Testing

1. Verify registration forms save the data correctly.

2. Confirm that loan statuses update accurately.

3. Test filters and reports for proper data retrieval.

4. Check user access control (ensure unauthorized users cannot access restricted pages).

Troubleshooting

1. **404 Errors on Pages:**

   o Ensure the routes are defined correctly in routes/web.php.

   o Check the @yield sections in the Blade layouts.

2. **Database Connection Errors:**

   o Verify database credentials in the .env file.

   o Ensure MySQL service is running.

3. **Assets Not Loading:**

   o Run npm run dev to compile assets.