Product Requirement Doc

MSME Onboarding Platform

Project Overview

This document outlines the backend requirements for the MSME Onboarding Platform, designed to streamline the process for small businesses to upload their products and manage their online presence. The platform will include features such as CSV upload, product summary generation, user authentication, and role-based access control.

Functional Requirements

1. User Authentication and Registration

- **Description:** Implement user login and registration using Google Single Sign-On (SSO).
- **Requirements:**
    - Integrate Google OAuth 2.0 for user authentication.
    - Store user information securely in the database.
    - Handle user sessions and token management.
    - Ensure seamless login experience and redirect users to the appropriate dashboard.

2. Role-Based Access Control (RBAC)

- **Description:** Implement role-based access control so that one seller cannot update or watch another seller's product.
- **Requirements:**
    - Assign roles during user registration or by an admin.
    - Restrict API access based on user roles.

3. CSV Upload and Parsing

- **Description:** Allow users to upload CSV files containing product information.
- **Requirements:**
    - Develop an endpoint to handle CSV file uploads.
    - Validate and parse the CSV data.
    - Convert parsed data into the required format.
    - Handle errors and provide feedback to users.

4. Product Summary Generation using LLM

- **Description:** Generate product summaries using a language model.
- **Requirements:**
    - Send parsed product data to an LLM API with characteristics of seller.
    - Receive and store generated summaries.

- ○ Provide endpoints for reviewing and editing summaries.
- ○ Ensure accurate and relevant summary generation.

5. Product Data Management

- ● **Description:** Manage product data within the database.
- ● **Requirements:**
  - ○ Create endpoints for CRUD operations on product data.
  - ○ Ensure data integrity and validation.
  - ○ Optimize database queries for performance.
  - ○ Implement search and filtering capabilities.

6. Automated Workflow and Notifications

- ● **Description:** Notify users about the status of their onboarding process like summaries for products are generated.
- ● **Requirements:**
  - ○ Implement an automated workflow system.
  - ○ Send notifications via email.