

Basic Synopsis for Recipe Generator Hub (Django Project)

Objective:

The Recipe Generator Hub is a Django-based interactive web application that allows users to generate AI-powered recipes, view past generated recipes, and explore standard recipe templates. Users can modify and interact with the generated recipes.

Core Features & Pages

Login Page (User Authentication)

- Users must register or log in to access the platform.
- Django's authentication system will handle user sessions.

Welcome (Dashboard) Page

- After logging in, users land on a dashboard with three main options:
 - Generate Recipes (LLM-based AI generation)
 - See Past Recipes (User's saved/generated recipes)
 - See Templates (Predefined standard recipes)

Recipe Generation Page

- Users input a prompt (e.g., "Vegan pasta with mushrooms").
- Django processes the request and sends it to an LLM API (e.g., OpenAI or Hugging Face model).
- The generated recipe is displayed.

Recipe Interaction Page

- After generation, the user can:
 - Modify the recipe (edit ingredients, steps).
 - Save the recipe for future reference.
 - Export the recipe as a PDF or share it.

Past Recipes Page

- Displays all previously generated recipes.
- Users can edit, delete, or re-use past recipes.

Recipe Templates Page

- Showcases a collection of standard recipes (e.g., pasta, curry, desserts).
- Users can browse or modify them as per their preference.

Tech Stack

- Backend: Django (Django ORM, Views, Forms, Authentication)
- Frontend: Django Templates (HTML, CSS, JavaScript, Bootstrap for UI)

- LLM Integration: API calls to OpenAI/Hugging Face for recipe generation
- Database: PostgreSQL or SQLite (to store users, past recipes, and templates)

Project Scope

- The focus is on using Django's built-in features as much as possible.
- The project will be interactive (allowing users to modify generated recipes).
- It will have CRUD functionalities for managing past recipes.

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