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Databases Project Assignment 1
Flavor Finder

Intended Functionality (from User Perspective):

Flavor Find will allow users to discover recipes based on the ingredients they have at home, their dietary preferences, and their cooking preferences. Its mission will be to make cooking more accessible, reduce food waste, and inspire people to explore flavors from around the globe.

On the homepage, users will see a clean interface with a central search bar where they will enter the ingredients they currently have. They will be able to refine their search using filters such as cuisine type (e.g., Italian, Indian, Mexican), dietary restrictions (vegetarian, vegan, gluten-free), cooking difficulty, or preparation time. The system will check inputs, and in case of missing or invalid data, it will display prompts to guide users toward corrections.

After submitting a query, users will receive a curated list of recipes that match their selections. Each recipe will display key details, including cuisine, difficulty, cooking time, and step-by-step instructions. The system will also identify "almost complete" recipes, highlighting the few extra ingredients required, so users can decide whether to substitute or purchase them.

Users will be able to save favorite recipes to their personal profile for easy access in the future. Based on saved recipes and applied filters, FlavorFind will adapt over time to provide more personalized recommendations.

User Interactions with the System:

1. What the user sees

- A clean homepage with a central search bar.
- Filter options for cuisine type, dietary preferences, cooking difficulty, and preparation time.
- A generated list of recipes after submitting a search.

- Recipe details such as cuisine, difficulty, cooking time, and step-by-step instructions.
- "Almost complete" recipe suggestions with missing ingredients highlighted.
- A personal profile section with saved recipes and personalized recommendations.

2. What actions the user can take

- Enter available ingredients into the search bar.
- Apply filters to refine recipe results.
- Submit a search request.
- Open and view recipe details.
- Save favorite recipes to their profile.
- Explore personalized recommendations.

3. What are their results

- A curated list of recipes that match the entered ingredients and filters.
- Recipe pages showing detailed instructions and key information.
- Suggestions for recipes that require only a few extra ingredients.
- A personalized set of recommendations that improves over time.
- Quick access to previously saved favorite recipes.

4. What about illegal input/actions

- If the search bar is left empty, the system will prompt the user to enter at least one ingredient.
- If invalid or unrecognized ingredients are entered, the system will provide suggestions or corrections.
- If filters are applied in a way that yields no results, the system will inform the user and suggest adjusting filters.
- If users attempt restricted actions (e.g., saving without being logged in), the system will prompt them to log in first.

ER Diagram: