Search Criteria

Recipe Name:

- Users can search for recipes by entering either the exact recipe name or a partial match of the recipe name.
- For example, searching for "tea" should return all recipes with names containing "tea."

Ingredients:

- Users can search for recipes based on ingredients.
- By entering the name of an ingredient, the search should return recipes that contain that ingredient.
- Partial matches should also be considered. For instance, searching for "Tomato" should return recipes containing ingredients like "Tomato Sauce."

Cooking Time:

- Users can search for recipes based on the cooking time.
- They can enter a specific cooking time (e.g., "30 minutes").
- The search should return recipes that have a cooking time that matches the specified time.

Difficulty:

- Users can search for recipes based on difficulty level.
- They can enter the exact difficulty level (e.g., "Easy," "Medium," etc.).
- The search should return recipes that match the specified difficulty level.

Format of Output

- The search results should be displayed in a user-friendly format.
- Each search result should include:
    - **Recipe Name:** Display the name of the recipe.
    - **Short Description:** Provide a brief description or summary of the recipe.
- If there are multiple search results:
    - List them in a visually appealing way, such as in a grid or a list.
    - Include pagination if there are many search results to ensure usability.
- Provide clear and concise information to help users quickly identify and select recipes of interest.

Data Analysis

Bar Chart:

- **x-axis:** Difficulty level
- **y-axis:** Number of recipes
- Information: Shows the distribution of recipes across different difficulty levels.

Pie Chart:

- No axis labels

- Information: Provides a visual representation of the proportion of recipes across various categories.

Line Chart:

- **x-axis:** Cooking time
- Information: Displays trends or patterns related to cooking times of recipes.

Execution Flow

1. **Login:**

   o The user will land on the login screen and log in with their credentials.

2. **Home Page:**

   o Upon logging in, the user will be redirected to the home page.
   o From the home page, the user can:
   - Click to see the recipes overview page
   - View all recipes
   - Search for a recipe based on the outlined criteria above.

3. **Recipes Overview Page:**

   o If the user navigates to the overview page, they will see:
   - A list of recipes
   - A series of charts showing various recipe information, including distribution by difficulty, number of ingredients needed, or cooking time.

4. **Searching or Navigating:**

   o The user can either search for recipes or navigate to see more information about a specific recipe.