

Task 2.7

With potentially dozens of recipes, users should be able to find recipes based on their:

- **Name** -- Users should be able to see available recipe options based on the name of the recipe. It's possible that there may be multiple variations of a recipe with the same name.
- **Ingredients** -- Users may have specific ingredients available to them to create a meal. Being able to search for recipes based on their ingredients provides users with different meal options.
- **Difficulty** -- Some users may like making elaborate dishes while others want something simple. Refining results based on their difficulty level takes away unwanted noise that a user might otherwise have to sort through.
- **Cooking time** -- Everyone needs to make a quick meal at some point. Or users may want a recipe that requires a lot of preparation time, or long intervals of cooking.

These levels of personalization make the user experience specific to each user. This kind of experience allows the user to find what they're expecting much faster than if they had to sift through pages of recipes that don't fit what they're looking for, and it may drive them to a competitor's application.

Data Analysis

I think the display-style of different charts depends on the volume of datasets available to the application. For smaller applications, providing data at your own discretion gives the user an all-around visual of what's available to them. Displaying graphs based on user input works well when data is meant to be personalized for the user so they can have a quick look at their specific topic. Maybe some instances can include both options on different parts of the website or application. Maybe something along the line of categorization and filtering for specific data within the selected category.

1. **Bar chart:**
 - **x-axis:** Difficulty Level
 - **y-axis:** Number of Recipes
2. **Pie chart:**
 - **Recipe Distribution by Difficulty**
3. **Line chart:**
 - **x-axis:** Difficulty Level

- **y-axis:** Average Cooking Time