**EXPERIMENT 1**

**FUNCTIONAL REQUIREMENTS**

Functional requirements specify what the system or software should do or the actions it should perform. They describe the intended functionality, features, and capabilities of the system. These requirements outline the system's behaviour, inputs, outputs, and interactions with users or other systems. Functional requirements are typically specific, measurable, and verifiable. Examples include user authentication, data input validation, report generation, and system integration.

* **User Authentication**

Users must be able to create accounts with unique login credentials.

Secure authentication mechanisms should be implemented for user data protection.

* **Ingredient Input**

Users should have the option to input ingredients they have at home.

The system should support both dynamic list selection and manual entry.

* **Real-Time Recipe Updates**

Recipes should update instantly as users add or remove ingredients.

The system must provide a responsive and seamless user experience.

* **Recipe Categorization**

Recipes should be categorized into user-friendly sections for easy navigation.

Categories may include cuisine types, dietary restrictions, or meal types.

* **Personalized Recommendations**

The platform must analyse user preferences and dietary restrictions to offer personalized recipe recommendations.

Recommendation algorithms should be able to adapt to user feedback and evolving preferences.

* **Recipe Contribution**

Users interested in cooking can contribute recipes.

The contribution process should be straightforward, allowing users to share their culinary creations with the community.

* **Visibility Controls**

Contributors should be able to manage the visibility of their recipes.

Privacy settings should allow control over who can view and access the shared recipes.

* **Search Functionality**

The search tool should efficiently match input ingredients with available recipes.

Search results should be displayed in a user-friendly and organized manner.