

REQUIREMENTS DOCUMENT

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Task Matrix

Zeynep Saçaklı	Nisa Naz Keleşoğlu	Beril Aydın
Requirements Document	Effort Estimations	Task Assignments

Functional Requirements:

1. Users must be able to enter ingredients.
2. The system must generate recipe suggestions based on inputs.
3. The system must display a detailed recipe including ingredients, steps, and estimated cooking time.
4. Users must be able to create an account.
5. Users must be able to save favorite recipes.
6. The recipe most saved in favorites should be suggested first.
7. The system needs to support filtering for dietary preferences such as vegetarian, vegan, gluten-free and lactose-free.
8. The system should generate recipe suggestions based on the time the user wants to allocate to the recipe.
9. If the inputs are not sufficient for any recipe, the system should mark the missing ingredients as missing and suggest recipes
10. Users must be able to search for recipes manually.

Non-Functional Requirements:

1. The project should only run in the browser.
2. The user interface (UI) should be simple and understandable.
3. The database must be structured to contain at least 1,000 recipes.
4. Page load time should be less than 5 seconds.
5. Minimum password requirements (e.g. 8 characters, uppercase letters, numbers) must be applied for Password Security

Effort Estimation for Each Phase

The effort estimation for each phase is based on expert judgment and analogy with similar projects. The project is planned for a 3-person team working over 6 weeks. The estimated effort is given in person-days:

1. **Requirements Gathering** – 10 person-days
2. **System Design** – 15 person-days
3. **UI/UX Design** – 12 person-days
4. **Backend Development** – 30 person-days
5. **Frontend Development** – 25 person-days
6. **Integration & API Development** – 20 person-days
7. **Testing (Unit & System Testing)** – 20 person-days
8. **User Acceptance Testing (UAT)** – 8 person-days
9. **Deployment & Maintenance** – 10 person-days

Total Estimated Effort: 150 person-days

Method Used:

- **Expert Judgment:** Based on prior experience with similar projects.
- **Analogy:** Comparing with past software development projects of similar scope.
- **Breakdown Estimation:** Dividing the project into distinct phases and estimating each separately.
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Team Members and Roles

Beril Aydın	Project manager/Developer
Nisa Naz Keleşoğlu	Requirements analyst/Developer
Zeynep Saçaklı	Developer/Tester

Task Table

Task /Requirement	Beril Aydın	Zeynep Saçaklı	Nisa Naz Keleşoğlu
Users must be able to enter ingredients.	+	+	+
The system must generate recipe suggestions based on inputs.	+	-	+
The system must display a detailed recipe including ingredients, steps, and estimated cooking time.	+	+	+
Users must be able to create an account.	+	+	+
Users must be able to save favorite recipes.	+	+	+
The recipe most saved in favorites should be suggested first.	+	+	+
The system needs to support filtering for dietary preferences (vegetarian, vegan, gluten-free, lactose-free).	+	-	+
The system should generate recipe suggestions based on the time the user wants to allocate to the recipe.	+	+	+
If inputs are insufficient, the system should mark missing ingredients and suggest recipes.	+	-	+

Users must be able to search for recipes manually.	+	+	+
The project should only run in the browser.	-	+	+
The user interface (UI) should be simple and understandable.	-	+	+
The database must contain at least 1,000 recipes.	+	-	+
Page load time should be less than 5 seconds.	+	+	+
Minimum password requirements must be applied for security.	+	+	+

Rationale for Task Assignment

The task distribution was organized in a way that everyone takes an active role in the project development process:

All team members contribute to the core development tasks.

Beril takes a major role in data processing and system logic, while also participating in the overall development process.

Zeynep manages the user interface and integrations, while also being involved in other development processes.

Nisa actively takes on development tasks in addition to project management and testing processes.

This structure balances the division of labor, allowing everyone to write code and be involved in management and testing processes.