

# PROJECT PLAN DOCUMENT

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## Task Matrix

| Nisa Naz Keleşoğlu       | Zeynep Saçaklı  | Beril Aydın            |
|--------------------------|-----------------|------------------------|
| Key Phases and Timelines | Budget Plan     | Objectives             |
| Project Organization     | Resources Plan  | Project Scope          |
| Communication Plan       | Risk Management | Change Management Plan |

**Project Scope:**

The project will include a functional recipe and ingredient search system, user accounts, dietary filters, filtering by preparation time, and sorting recipes by the most liked, but will not include calorie tracking, recipe rating, support meal planning or grocery list generation. If no exact match for available ingredients is found, the system will display the most liked recipes, highlighting the missing ingredients.

**Project Organization:**

- Beril: Backend development, database management
- Zeynep: Frontend development, UI/UX design
- Nisa: Documentation, testing, project coordination

**Objectives:**

- Ensure the project is delivered on time and within scope.
- Maintain clear communication and collaboration among team members.
- Implement agile methodologies to adapt to changes efficiently.
- Deliver a user-friendly and efficient application that meets user expectations.
- Conduct rigorous testing to ensure the reliability of features.
- Manage project risks proactively to avoid delays and technical issues.

**Key Phases & Timeline:**

1. Requirements gathering & UI/UX design (Week 1)
2. Backend and database setup (Week 2)
3. Frontend development (Week 3)
4. AI model integration & API implementation (Week 4)
5. Testing & debugging (Week 5)
6. Deployment & final documentation (Week 6)

## Resource Planning :

- **Frontend:** HTML, CSS, React (for UI development)
- **Backend:** JavaScript, Firebase (authentication & database management)
- **APIs:** Spoonacular API (recipe data)
- **Version Control:** GitHub (for source code management)
- **Collaboration Tools:** Slack (communication)

## Risk Management:

- **Potential Risk:** Delays in development  
**Mitigation:** Weekly progress meetings
- **Potential Risk:** API limitations  
**Mitigation:** Have backup sources for recipe data
- **Potential Risk:** Security vulnerabilities  
**Mitigation:** Implement strong authentication and authorization protocols, use HTTPS, and regularly update dependencies.
- **Potential Risk:** Scalability issues if user base grows rapidly  
**Mitigation:** Optimize database queries, use caching mechanisms, and plan for potential server upgrades.
- **Potential Risk:** User retention challenges  
**Mitigation:** Introduce gamification, push notifications, and personalized recommendations to keep users engaged.

## Communication Plan:

- Weekly team meetings will be held to discuss progress, address challenges, and ensure alignment on project goals.
- Slack will be used for daily communication, quick updates, and issue resolution.
- GitHub issues and project boards will be utilized for task tracking and collaboration.
- Email will be used for formal communication with external stakeholders, if required.

**Change Management Plan:**

- Any proposed changes to project requirements or scope must be submitted in writing via a shared document.
- The team will review proposed changes during the weekly meeting, and a decision will be made by consensus.
- If a change impacts the timeline or resources significantly, a revised project plan will be created and approved by all members.
- Changes will be documented in GitHub to maintain version control and track modifications.

**Budget Plan:**

- The project will primarily rely on free-tier services for hosting and APIs to minimize costs.