

Project Plan

Cook up Companion

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Distribution

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1. Project assignment

1.1 Context

The project focuses on developing a recipe sharing and meal planning application to streamline the process of discovering new recipes, planning meals, and generating shopping lists. The application aims to provide users with a centralized platform where they can explore a diverse range of recipes, customize their meal plans according to dietary preferences, and efficiently manage their cooking routine.

1.2 Goal of the project

The primary goal of the project is to create a user-friendly and feature-rich application that enhances the culinary experience for individuals and families. The project aims to address the following objectives: Provide users with a convenient platform to discover, save, and organize recipes.

Simplify meal planning by allowing users to schedule meals for the week and generate shopping lists automatically.

Offer customization options to accommodate diverse dietary preferences and cooking requirements.

Enable social interaction through features such as liking, commenting, recipes with others.

Showcase proficiency in developing cross-platform applications and integrating with external APIs and databases.

The new preferred situation would involve users seamlessly navigating through an intuitive interface, exploring an extensive database of recipes, effortlessly planning their meals, and receiving nutritional insights for informed decision-making. The advantages of this project include enhancing user satisfaction, promoting healthy eating habits, and showcasing technical expertise in application development and user experience design. Additionally, the project adds value to the company by demonstrating its capability to deliver innovative solutions that cater to the needs of modern consumers.

1.3 Scope and preconditions

Inside scope:	Outside scope:
1 Development of user registration and authentication system.	1 Physical distribution of ingredients or meal preparation services
2 Creation of a comprehensive recipe database with detailed information.	2 Integration with third-party delivery or grocery services
3 Implementation of search and discovery functionalities for recipes.	
4 Integration of search and discovery functionality for recipes	
5 Development for cross-platfor winform and web	
6 Incorporation of social feature for user engagement	
7 Integration of nutrition analysis features	
8 Provision of customization options for user preferences	

1.4 Strategy

I have choose the waterfall strategy

Well-defined Requirements: If the project requirements are stable and clearly understood upfront, the waterfall model can be effective. In such cases, there is less likelihood of significant changes occurring during the project lifecycle, making it suitable for a linear approach. **Predictable Scope and Deliverables:** When the project scope and deliverables can be accurately defined early on, the waterfall model provides a structured framework for planning and execution. Each phase has specific deliverables, making it easier to track progress and manage expectations. **Client/Stakeholder Preferences:** If the client or stakeholders prefer a traditional, sequential approach to project management, the waterfall model aligns with their expectations. This can be especially true for projects in regulated industries where documentation and formal sign-offs are essential. **Limited Iterations and Changes:** Projects with strict deadlines or budget constraints may benefit from the waterfall model's sequential nature, as it minimizes the need for extensive rework or iterations. Changes can be costly and time-consuming in waterfall, so if there's a need to avoid frequent changes, this model may be appropriate. **Clear Phases and Milestones:** The waterfall model provides well-defined phases and milestones, making it easier to plan and allocate resources accordingly. This structured approach can be advantageous for projects with complex dependencies or where tasks need to be completed in a specific sequence.

1.5 Research questions

How can user engagement be enhanced through social features such as liking, commenting, and sharing recipes? Approach: Conduct user surveys and usability testing to gather feedback on desired social functionalities and iterate based on user preferences.

What are the most effective methods for integrating nutrition analysis into recipe browsing and meal planning? Approach: Evaluate existing nutrition analysis APIs and conduct feasibility studies to determine the optimal approach for integrating nutritional insights into the application.

How can cross-platform compatibility be achieved while maintaining a consistent user experience across web and desktop versions? Approach: Investigate cross-platform development frameworks and methodologies, and assess their suitability for implementing consistent UI/UX design principles across different platforms.

1.6 End products

Product Breakdown Structure (PBS):

- 1. User Registration and Authentication System: Allows users to create accounts and securely log in.*
- 2. Recipe Database: Comprehensive repository of recipes with detailed information.*
- 3. Search and Discovery Functionality: Enables users to find recipes based on various criteria.*
- 4. Meal Planning Tools: Facilitates the scheduling of meals and generation of shopping lists.*
- 5. Social Features: Incorporates functionalities for liking, commenting, and sharing recipes.*
- 6. Cross-Platform Compatibility: Development of web and desktop versions for broader accessibility.*
- 7. Nutrition Analysis Feature: Provides users with detailed nutritional information for recipes.*
- 8. Customization Options: Allows users to personalize their profile settings and dietary preferences.*

2. Project organisation

2.1 Stakeholders and team members

<<Indicate all stakeholders and team members for your project. For each stakeholder indicate the role for your project. Note that the role that a person has for your project is different from the function the person has. E.g., someone with the function “department manager of department X” can have the role of product owner for your project.

Name	Abbreviation	Role and functions	Availability
Martin Simeonov	M.S	Project Manger	24/7
Boiko Borisov	B.B	Client	Monday ,Tuesday ,Friday from 10 to 16

2.2 Communication

Project Kickoff Meeting:

Goal: Discuss project objectives, roles, and responsibilities.

Location: Office conference room or virtual meeting platform.

Timing: At the start of the project.

Attendees: All team members and stakeholders.

Weekly Status Meetings:

Goal: Review progress and address any issues or concerns.

Location: Office conference room or virtual meeting platform.

Timing: Every Monday at 10:00 AM.

Attendees: Project Manager, Lead Developer, UI/UX Designer, Backend Developer, Database Analyst, Quality Assurance.

Monthly Stakeholder Meetings:

Goal: Present project updates and gather feedback from stakeholders.

Location: Office conference room or virtual meeting platform.

Timing: First Wednesday of every month at 2:00 PM.

Attendees: Project team, company supervisor, external stakeholders as needed.

3. Activities and time plan

3.1 Phases of the project

Main Phases:

Project Initiation
Requirements Analysis
Design and Planning
Implementation
Testing and Quality Assurance
Deployment
Maintenance and Support

3.2 Time plan and milestones

Phasing	Effort	Start date	Finish date
1 Project Initiation			
2 Requirements Analysis			
3 Design and Planning 4 Implementation 5 Testing and Quality Assurance 6 Deployment 7 Maintenance and Support			

4. Testing strategy and configuration management

4.1 Testing strategy

The testing strategy will include:

1. Unit testing for individual components and functions.
2. Integration testing to ensure the seamless interaction between different modules.
3. System testing to validate the application as a whole.
4. Acceptance testing to verify compliance with user requirements.

Automation will be prioritized for unit and integration testing to streamline the testing process and ensure efficient regression testing. A goal of achieving at least 80% code coverage for relevant unit tests will be set.

4.2 Test environment and required resources

The testing strategy will include:

1. Development environment for ongoing code changes and feature development.
2. Testing environment to simulate production-like conditions for thorough testing.
3. Acceptance environment for user acceptance testing (UAT).
4. Production environment for the final deployment of the application.

Cloud-based resources and virtualization technology will be utilized to facilitate flexible testing environments. Continuous Integration/Continuous Deployment (CI/CD) pipelines will be established to automate the deployment process and ensure consistency across environments. It includes: Unit testing for individual components and functions. Integration testing to ensure the seamless interaction between different modules. System testing to validate the application as a whole. Acceptance testing to verify compliance with user requirements. Automation will be prioritized for unit and integration testing to streamline the testing process and ensure efficient regression testing. A goal of achieving at least 80% code coverage for relevant unit tests will be set.

4.3 Configuration management

Version management will be handled using Git as the primary version control system. A branching strategy such as GitFlow will be implemented to manage feature development, bug fixes, and releases effectively. Change requests and problem reports will be tracked using an issue tracking system such as Jira, with a defined process for prioritization, resolution, and validation.

5. Finances and risk

5.1 Project budget

The project budget for hardware, software, licenses, and other resources is estimated at \$50,000. This budget will cover expenses related to:

- Hardware procurement for development and testing environments.
- Software licenses for development tools, testing frameworks, and project management software.
- Cloud services for hosting, storage, and testing environments.
- Libraries and frameworks required for application development.
- Development environments setup and maintenance costs.

To obtain budget approval, a detailed budget proposal outlining the above expenses along with their justifications will be prepared and presented to the project sponsor or relevant stakeholders. The proposal will highlight the necessity of each expenditure in achieving project objectives and delivering a high-quality solution within the specified timeline.

5.2 Risk and mitigation

Risk	Prevention activities	Mitigation activities
1 Unclear Requirements	Conduct thorough requirements gathering and analysis at the beginning of the project. Involve stakeholders and subject matter experts to clarify ambiguities.	Establish a change control process to manage requirements changes. Regularly communicate with stakeholders to ensure alignment and minimize misunderstandings.
2 Technical Challenges	Conduct a comprehensive technical feasibility study to identify potential challenges early on. Allocate sufficient time for research and prototyping.	Maintain a skilled and adaptable team capable of addressing technical challenges. Seek external expertise or consulting if necessary.
3 Resource Constraints	Identify resource requirements upfront and allocate resources accordingly. Regularly monitor resource utilization and adjust allocation as needed.	Prioritize tasks based on resource availability and criticality. Consider outsourcing non-critical activities to third-party vendors if internal resources are insufficient.