

Project Design Phase
Solution Architecture

| | |
|---------------|---|
| Date | 6 March 2025 |
| Team ID | SWTID1741161713158599 |
| Team Members | Ms. MONISHA K Ms. PADMAVATHI A Ms. SATHIYA PRIYA P Ms. VANITHA S |
| Project Name | COOKBOOK: YOUR VIRTUAL KITCHEN ASSISANT |
| Maximum Marks | 4 Marks |

Solution Architecture:

The solution architecture for the Recipe Application ensures a scalable, efficient, and user-friendly platform for discovering, saving, and managing recipes with real-time ingredient suggestions and nutritional information.

Goals of the Solution Architecture:

Identify the Best Tech Solution:

- Utilize modern front-end frameworks (React.js) and APIs (TheMealsDB API) to provide a seamless and interactive recipe discovery experience.

Define Structure & Characteristics:

- Ensure a modular, scalable, and maintainable software architecture that supports future feature enhancements like personalized meal planning and AI-based recipe recommendations.

Outline Features & Development Phases:

- Clearly define project milestones, including UI/UX design, API integration, database structuring, and deployment strategy.

Establish Specifications for Development & Delivery:

- Provide well-defined guidelines for system architecture, API integrations, data flow, and recipe data handling.
- Implement a high-performance backend to support large-scale user requests for recipe searches, filtering, and personalized recommendations without delays.

