

**Project Design Phase**  
**Solution Architecture**

Date	6 March 2025
Team ID	SWTID1741282234158114
Project Name	COOKBOOK
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.

