

# Project Breakdown

## Dining Services App

The Dining Services App aims to manage campus dining facilities and meal plans, providing a seamless and personalised dining experience. It features real-time menu access, dietary management tools, meal credit tracking, dining reservations, and a feedback system. The app includes a user-friendly dashboard for viewing menus, managing dietary preferences, and tracking meal credits, supported by robust APIs for menu data, dietary management, meal credits, reservations, and feedback.

### Objective:

Develop a Dining Services App to manage campus dining facilities and meal plans, providing a seamless and personalised dining experience for students, faculty, and staff.

### Key Features:

- **Menu Access:** Provide real-time access to dining menus across campus dining facilities.
- **Dietary Management:** Allow users to manage dietary preferences and restrictions.
- **Meal Credits:** Track and manage meal plan credits and transactions.
- **Dining Reservations:** Enable users to make reservations at campus dining facilities.
- **Feedback System:** Collect and manage feedback on dining services and meal quality.

### API Development:

- **Menu API:** Retrieve and update dining menu data, including nutritional information and ingredients.

- **Dietary Management API:** Manage user dietary preferences and restrictions.
- **Meal Credit API:** Track and manage meal plan credits, transactions, and balances.
- **Reservation API:** Handle dining reservations, including availability, booking, and cancellations.
- **Feedback API:** Collect and manage feedback on dining services and meals.

## Database Management:

- **Menu Database:** Store data on dining menus, nutritional information, and ingredients.
- **Dietary Database:** Maintain user dietary preferences and restrictions.
- **Meal Credit Database:** Track meal plan credits, transactions, and balances.
- **Reservation Database:** Manage dining reservations, including availability and booking details.
- **Feedback Database:** Store user feedback, ratings, and comments on dining services.

## Infrastructure:

- **Hosting and Scaling:** Ensure the server and database infrastructure can handle reasonable volumes of real-time data, especially during peak dining hours.
- **Security:** Implement robust security measures to protect user data, meal credit transactions, and feedback information.
- **Reliability:** Ensure reasonable availability and reliability of the platform, with minimal downtime.