



School of Computer Science and Engineering

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# CUSTOMIZABLE DIET PLANNER

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# OUTLINE:

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# INTRODUCTION

The Customizable Diet Planner is a personalized web-based application designed to generate customized meal plans based on user inputs such as cultural or regional food preferences, professional background, and health conditions. The system aims to improve users' nutritional intake while respecting cultural habits and dietary needs. It provides users with personalized meal recommendations, nutritional breakdowns, and health tips to support a healthy lifestyle.



# LITERATURE REVIEW

Existing diet planning systems and fitness applications often provide generic meal plans that fail to consider individual preferences such as **local cuisines, professional lifestyles, or medical restrictions**. Many available tools focus solely on calorie counting or weight tracking. However, studies and systems in the domain of personalized nutrition have highlighted the importance of customization based on **culture, health condition, and professional needs**. The Customizable Diet Planner builds upon these findings by offering a culturally adaptive and user-centric approach that bridges this personalization gap.

# PROBLEM STATEMENT

Most diet planning applications lack the ability to generate personalized meal plans that incorporate **regional food preferences, dietary restrictions, and professional nutritional requirements**. As a result, users often receive generic recommendations that are difficult to follow in their daily routines. There is a need for an intelligent and adaptive system that can analyze user-specific data and suggest diet plans that are both healthy and practical according to the user's background.

# OBJECTIVES

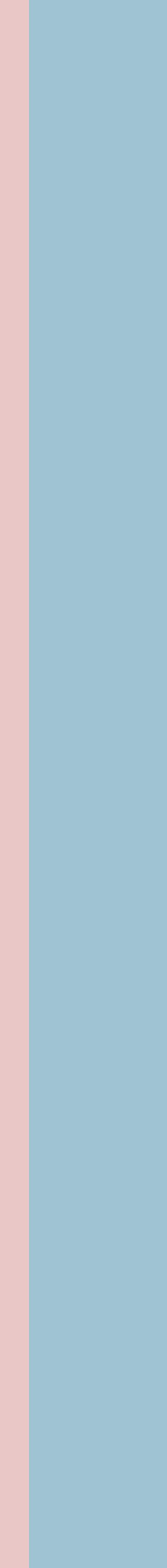
- To identify the impact of cultural, professional, and health-based preferences on dietary planning.
- To generate personalized diet plans that enhance nutrition and promote healthy eating habits.
- To design a system that collects user data such as health condition, BMI, and food preferences.
- To ensure scalability and efficiency for multiple concurrent users.

# PROPOSED SOLUTION

- The proposed solution, Balanced Bites, is an intelligent mobile application designed to provide users with personalized and nutritionally balanced meal plans. The app focuses on creating customized diet recommendations based on each user's **cultural background, health condition, dietary preference, and professional lifestyle**. It aims to promote healthy eating habits while respecting individual food choices and regional cuisines.
- Through a simple and interactive interface, users can input personal details such as **state or regional food preferences, dietary type (vegetarian, vegan, keto, etc.), health conditions (e.g., diabetic or hypertensive), and profession (athlete, patient, or general user)**. Based on this information, Balanced Bites uses a recommendation algorithm that generates a personalized meal plan matched with verified nutritional data.
- The app allows users to **view, modify, and save** their diet plans while displaying a detailed nutritional breakdown and health tips to help them stay on track. It also includes smart features such as **diet tracking, progress monitoring, meal reminders, and offline access to saved plans**.

## REFERENCES:

- Customizable Diet Planner – Software Requirement Specification (SRS), Internal Project Document, 2024.
- USDA FoodData Central – Verified Nutritional Database (<https://fdc.nal.usda.gov/>).
- World Health Organization (WHO) – Dietary Guidelines and Nutritional Standards.
- Android Developers Documentation – Best Practices for Secure Mobile App Development



# THANK YOU

