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PROJECT PROPOSAL OF

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# Food Recipe App

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# Chapter 1

## Introduction

### 1.1 Project Overview

Recipes are guides to making something together with notes on ingredients and their amount. To be able to make food, of course, the cook must prepare the ingredients in advance to be processed into ready-to-eat dishes.

Often people have a lot of food ingredients but don't know how to process them. Back then, people depends on recipe that was passed down from generation to generation. Now, the digital world is growing rapidly. Everything needed is accessible with today's technology.

Finding new recipes daily with the ingredients in hand is a difficult task that leads to people looking at different recipe apps and cookbooks. But it is often not possible to find the recipe one is looking for with the constraint of ingredients.

The objective of this model is to build an android app so as to cater to all the problem faced by people while searching for new recipes. The proposed system gives ingredients with the recipes with other extra functionalities like BMI calculation that will give an extensive overview of health as well as recipes that the other available applications on market doesn't have. The system also consists of interactive features in the user interface enabling the user to save their recipes for later on.

# Chapter 2

## Motivation

### 2.1 Gap and Opportunity

Existing solutions often lack essential features such as a user-friendly login registration interface, advanced search options, and comprehensive nutritional information. Our Food Recipe App will address most of existing limitations. The limitations and overview of existing application on market is:

- **Cookpad**

*No of Downloads:* 10M+

*Features:* Connects users with a community of home -cooks for recipe sharing and discovery. Enables users to save and browse recipes based on ingredients and dietary needs [1].

- **Tasty:**

*No of Downloads:* 10M+

*Features:* Provides a large collection (over 3,000) of recipes with step-by-step instructions. Offers recipe recommendations and allows customization based on dietary preferences [2].

- **My Recipe Box:**

*No of Downloads:* 1M+

*Features:* Helps users organize their recipes, create grocery lists, and plan meals. Enables searching and importing recipes online, sorting and filtering them for easy access [3]. Allows sharing recipes and backing them up for safekeeping.

- **SideChef:**

*No of Downloads:* 500k+

*Features:* Offers step-by-step recipes with pictures and videos, making cooking easier [4]. Provides recipe filtering based on dietary needs and preferences. Integrates with

grocery stores for convenient shopping directly from the app. Allows users to create meal plans and save recipes for future use [4].

- **Respo Go:**

*No of Downloads:* 500+

*Features:* Provides recipes from many areas of the world, including Pakistan, India, and Afghanistan [5]. Offers recipes in both Urdu and English. Allows users to search for specific recipes or browse by cuisine. Includes a list of ingredients, step-by-step instructions, and nutritional information for each recipe [5].

## 2.2 Limitations to Work On

- Annoying Advertisement and third party links
- BMI
- Adding New Recipes
- Improved User Interface
- Authentication system
- Users can create personalized profiles
- The app will utilize an SQLite database to store a comprehensive collection of recipes, including details such as ingredients, instructions, and nutritional information.
- Users have the option to search for recipes based on available ingredients
- The app will display comprehensive nutritional information for each recipe, including details such as calories, macronutrients, and micronutrients.
- Users can contribute to the app by adding, updating, or deleting recipes. The app will provide information about the developers who created the application.

## Chapter 3

# Project Design

### 3.1 Implementation

#### 3.1.1 Functional and Nonfunctional Requirements

**Functional:**

**1. Login/register (User Authentication)**

**2. Show user profile**

- Show user profile currently who registered..
- User can update profile

**3. Recipe database**

- SQLite database will be used to store all recipes.

**4. Search Functionality**

- Allow users to search for recipes by keywords, categories, ingredients, or popularity.

**5. Recipe Categories**

- Provide a variety of categories such as breakfast, lunch, dinner, snacks, desserts, etc.

**6. Popular Recipe**

- Show All Popular recipes

**7. Ingredient-based Search:**

- Enable users to find recipes based on available ingredients..

**8. Dietary Information:**

- Display nutritional information
- Compute Estimated Energy requirement (How much to eat for diet)

**9. User-generated content**

- User Can Add Recipe
- User Can update the Recipe
- User can Delete the Recipe

**10. BMI**

- Compute BMI level as extra feature

**11. User interface**

- Show All functionality by using Surprising User interface

**12. Developer information**

- Show All developer information who developed this application.
- User can update profile

**Non-Functional:**

- Security – HTTPS
- Reliability
- Fast
- UI UX

**3.1.2 Environment Setup**

- Development Environment: Android Studio IDE with Kotlin support.
- Database: SQLite for local storage
- API Integration: Utilize recipe APIs for fetching recipe data.
- Version Control: Git for code management and collaboration.

**3.2 Project Timeline**

Week 1-2: Requirement gathering, research, and UI/UX design.

Week 3-4: Front-end development: Implementing login/registration, search functionality, and user profiles.

Week 5-6: Back-end development: Database setup, integration with APIs for recipe data and nutritional information.

Week 7-8: Testing, bug fixing, and optimization.

## Chapter 4

# Result and Conclusion

The proposed food recipe app promises to revolutionize culinary exploration and meal preparation with its comprehensive feature set. Upon development, users will benefit from functionalities such as secure user authentication, an extensive recipe database searchable by keywords and ingredients, detailed nutritional information, user-generated content capabilities, and a BMI calculator. The app is poised to become an indispensable tool for food lovers, offering a delightful and enriching culinary experience.

### 4.1 Referenece

- [1] <https://play.google.com/store/apps/details?id=com.mufumbo.android.recipe.search>
- [2] <https://play.google.com/store/apps/details?id=com.buzzfeed.tasty>
- [3] <https://play.google.com/store/apps/details?id=fr.recettetek>
- [4] <https://play.google.com/store/apps/details?id=com.sidechef.sidechef>
- [5] <https://play.google.com/store/apps/details?id=com.foodplanet.respogo>