**A FOOD RECIPE APP BASED ON SERVED FOOD**

**Project Title: Chop Bellyful**

**Project Group: Group 7**

**Names of Members**

* Raji Sherifdeen
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**Objective**

* Create a user-friendly mobile application that allows users to snap pictures of food, identify ingredients through image recognition, and search for recipes based on the identified ingredients.
* Creating meal plans for specific people and helping them manage their diets e.g. weight loss meal plans, hypertensive meal plans, diabetes meal plans, old people’s meal plans, and Meal plans for genotypes.
* General recipes for bachelors, families, and children and personalized meal plans for individuals based on their goals.

**Secondary Objectives**

* Users can save favorite recipes, and share their culinary experiences with the community.
* Provide a personalized user experience by offering recipe recommendations based on user preferences.
* Creating a monthly meal plan and shopping list for users to follow the meal plan and in the future recommend the cheapest markets close to their location.
* Access recipes from your favorite chefs when you keep daily streaks
* Clock in using streaks to log in daily intake and meals to keep track of how healthy you eat and recommendations on what to eat and avoid for healthy living.
* Daily streaks to grant access to more features on the app.
* Interact with an AI for food suggestions and clarification on recipes.
* Foster a sense of community by allowing users to interact through comments, ratings, and social sharing.

**Problem Statement**

* Most times when you see pictures of food you are interested in, you might not know the name or have the recipe, Chop Bellyful aims to address this problem by leveraging image recognition technology to identify ingredients from food photos, making it easier for users to discover and cook a wide variety of recipes.
* Most people want to eat healthy and some even have medical conditions that requires them to avoid certain food but they find it difficult to carve out a meal plan that suits that purpose, it also aims to address living healthy with specific meal plans for different users.

**Features**

**Image Recognition:**

Allow users to take pictures of food, analyze the images to identify ingredients, and suggest relevant recipes.

**Recipe Search:**

Implement a robust recipe search functionality, enabling users to search for recipes based on specific ingredients, cuisines, and dietary preferences.

**User Profiles:**

Provide users with the ability to create profiles, save favorite recipes, and track their cooking journey.

**Shopping List:**

Allow users to access shopping list for the month so that they can work with specific meal plan.

**Personalized Recommendations:**

Implement algorithms to offer personalized recipe recommendations based on user preferences, cooking history, and interactions with the app.

**Social Sharing:**

Enable users to share their cooking creations, recipes, and experiences on social media platforms.

**User Feedback and Ratings:**

Implement a system for users to leave feedback, ratings, and reviews for recipes, fostering community engagement and trust.

**Cross-Platform Compatibility:**

Develop the app for both iOS and Android platforms, ensuring a broad user reach.

**Technology Stack**

**Front-End**

**React Native:** For building a cross-platform mobile app with a single codebase.

Image Recognition:

**TensorFlow.js or TensorFlow Lite:** For implementing image recognition functionalities.

**Backend**

**Node.js:** For server-side development and handling backend logic.

**Express.js:** As a web application framework for Node.js.

**Database**

**MongoDB:** For storing user profiles, recipes, and other relevant data.

**Authentication**

**Firebase Authentication:** For user authentication and authorization.

**APIs**

Integration with external recipe databases and services (e.g., Spoonacular) for recipe data.

**Version Control**

**Git:** For version control and collaborative development.

**Deployment**

Deployment to Google Play Store (Android) and App Store (iOS) for wider distribution.