

# **MEAL PLANNER - Requirements**

by CodeBusters

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# WELCOME TO THE MEAL PLANNER APP!

The **Meal Planner App** is a user-friendly Windows Forms application created by CodeBusters' team. It is designed to help users efficiently manage their daily meals, get new recipes, manage their daily calorie intake, and stay hydrated! Whether your goal is to lose or gain weight or simply maintain a well-balanced diet, this app provides tools and features that support your journey. This guide will walk you through the app's functionality, ensuring a seamless and user-friendly experience while helping you stay on track with your nutritional goals.

# PROFILE SETUP

## SETTING UP PERSONAL DATA

At the start-up, the user can personalize their experience. This is a section fully dedicated to customizing the user's profile. The user must complete all the sections to finish setting up their account. The sections are split into 2 main categories:

- **Unmodifiable:** name, date of birth, and e-mail. The user won't enter this data. It will be collected from the Social-Part of the application and displayed at the top of the page. For it to be modified, the user must modify it in the Social-Part section.
- **Modifiable:** height (in meters and feet), weight (in kgs and lbs), nutritional goals (lose weight, maintain weight, gain weight), dietary preferences (no preferences, vegan, vegetarian, etc.), allergies (nuts, lactose intolerance, etc.), how physically active the user is (not active, active, etc.), and cooking skills (beginner, advanced, etc.). Using this data the app will automatically calculate the BMI (Body Measurement Index) and tell the user if they are healthy or unhealthy, suggesting the closest appropriate weight and the recommended daily calorie intake. Also, the preferences, goals, and allergies will modify the food recommended to the user, making the app more suitable. This data can be modified at any point, based on the evolution of the user.

# MEALS

## 1. PRESET INGREDIENTS

This section provides a structured selection of individual food items and basic meal components, ensuring users can efficiently plan their diet according to their preferences, nutritional goals, allergies, and cooking skills.

- The app will recommend the user ingredients based on their dietary preferences (vegetarian, vegan, keto, etc.), nutritional goals (the app tailors food suggestions based on the user's caloric and macronutrient requirements), allergies (the app warns the users that the recipe contains ingredients they are allergic to), and cooking skills (beginner difficulty, etc.).
- The user can browse individual food items to add to their menu, without needing a full recipe for it (“Boiled Eggs”, “Greek Yogurt”, “Strawberry”).
- Each ingredient supports multiple measurement units (grams, cups, slices, etc.).

## 2. BASIC MEALS

This part is dedicated to meal selection, allowing users to choose structured recipes and adjust portion sizes based on their dietary needs and cooking skills from a selection of meals based on the selected preferences.

- Users can filter the recipes using various types of filters (meal type: breakfast, lunch, dinner, snack; dietary preference; cooking difficulty; flavor: sweet, salty, sour).

- Each meal comes with a recipe, a cooking difficulty level, and estimated preparation and cooking time, helping users effectively schedule their meals.
- Portion control comes with every available meal (“2 servings of ...”, “1.5 servings of...”).

### 3. CREATING YOUR MEAL

This feature lets the user be creative with the food they’re eating. The section with predefined meals is going to be merged with the newly added recipes and they’re both going to be displayed on the “My Meals” page.

- Users can create a custom meal by entering a name, and portion size, and by selecting the ingredients from the existing ones, or they can manually enter one (adding a new ingredient also means adding its macronutrients for a proper counting of calories).
- All previously created meals can be accessed by the user for them to use it again.
- A recipe can be modified at any point, changing its ingredients or its name. If any major change is made (switching two ingredients, increasing/decreasing the quantity) the nutritional values are recalculated.
- If a recipe is not needed anymore the user can delete it to keep the list organized and relevant.

### 4. FAVORITE MEALS

For each meal displayed, the user can press the star-shaped icon to the right of the meal name. Upon clicking the icon, the user will save the meal in the “Favorite Meals” section.

# DAILY CALORIE COUNTER

## CALORIE TRACKER

This part monitors the calorie intake of the user for the day (a day is considered from 00:00 to 23:59) based on the calculations done at the beginning. The number of calories that the user should eat is calculated like this: goal (provided by the app) - food (calories of the meals consumed) + exercise (calories burnt, taken from the Workout-Part of the app).

- Users add a meal to the daily menu by clicking the button displayed next to it in the “My Meal” section. They can also add raw ingredients consumed (fruits, raw vegetables, etc.) as part of their daily menu.
- The user can constantly see how many calories out of X they consumed. Based on how much they consumed, the display changes to: red – under/above the recommended calories per that day, or green – the ideal number of calories consumed.

# **WATER TRACKER**

## **DRINKING TRACKER**

Having a healthy diet is not enough for our users, they also have to hydrate properly. Each user has a separate section of “Water Tracker” and they can enter how much water they drank that day, using various measurements (cups, liters, ounces, gallons). The recommended water intake for a user is 2 liters a day, but drinking more won’t modify the calorie calculations.

## **\*GROCERY LIST**

## **KEEPING THE FRIDGE FULL**

Based on the last cooked recipes and the favorite meals, the user can see on the “Grocery List” section what ingredients are needed for future meals. The app extracts the most frequent ingredients from already tried recipes, estimates the needed quantities for future recipes, categorizes them, and allows user modifications to tailor the list to their needs, so they can have both the shopping list and the recipe in one place.