

Data Dictionary

Term	Description
User	Refers to the party operating the web application
Username	A unique identifier that was chosen by the user during registration.
Password	A secret String of characters used for user authentication. This must be a minimum of 8 characters long, including an uppercase character and a special character
Age	The user's age measured in years old, provided from the "create profile" page.
Height	The user's height measured in centimetres, provided from the "create profile" page
Weight	The user's weight measured in kilograms, provided from "create profile" page
Gender	A choice field that the user can choose from either "female" or "male".
Activity Level	A choice field on "create profile" page where user selects their level of physical activity. The categories are sedentary (little to no exercise), Lightly active (light exercise/sports 1-3 days/week), Moderately active (moderate exercise/sports 3-5 days/week), Very active (hard exercise/sports 6-7 days a week), Super active (very hard exercise & physical job or 2x training).
Diet Type	A choice field on "create profile" page where user selects the type of nutritional plan they are on based on a specific criteria. The categories are anything, vegetarian, vegan, dairy free, gluten free, paleo).
Allergy Categories	A choice field on "create profile" page where user selects the types of food they are allergic to. The categories are gluten, peanuts, eggs, fish, dairy, soy, shellfish).
'Login' Page	The page where users enter their username and password to access their account. This page displays text fields for username and password
'My Plan' Page	The page that users are redirected to after successfully logging in. This is the main dashboard where the users personalised informations such as meal plan is displayed
Course	A course is a meal that is either breakfast, lunch, dinner or snack.
Interactive weekly calendar	A visual calendar that allows users to select dates and navigate between weeks. Users can also switch between days within a selected week by

	selecting on the specific date.
Tick icon	An icon used to mark a meal as completed.
Cross icon	An icon used to remove a recipe from the planned menu for a particular course.
Basal Metabolic Rate(BMR)	<p>BMR represents the number of calories the body needs to maintain its current weight without any additional activity.</p> <p>Calculation of BMR is as follows:</p> <p>Men: $(10 \times \text{weight in kg}) + (6.25 \times \text{height in cm}) - (5 \times \text{age in years}) + 5$ Women: $(10 \times \text{weight in kg}) + (6.25 \times \text{height in cm}) - (5 \times \text{age in years}) - 16$</p>
Total Daily Energy Expenditure(TDEE)	<p>TDEE gives the estimated number of calories we need to maintain our current weight based on our activity level.</p> <p>Calculation of TDEE is as follows:</p> <p>Sedentary (little to no exercise): $\text{BMR} \times 1.2$ Lightly active (light exercise/sports 1-3 days/week): $\text{BMR} \times 1.375$ Moderately active (moderate exercise/sports 3-5 days/week): $\text{BMR} \times 1.55$ Very active (hard exercise/sports 6-7 days a week): $\text{BMR} \times 1.725$ Super active (very hard exercise & physical job or 2x training): $\text{BMR} \times 1.9$</p>
Calories	Calories refer to the energy we get from the food we consume. Displayed in grams, up to the nearest whole number.
Protein	<p>Protein are molecules that are required for the structure, function and regulation of the body's tissues and organs, found mostly in seafood and meat. Displayed in grams, up to the nearest whole number.</p> <p>Calculation of daily protein needs is as follows:</p> <p>For sedentary/lightly active individuals: $1\text{-}1.2\text{g/kg/day}$ For moderately active - extremely active: $1.4\text{-}2.2\text{g/kg/day}$</p> <p>Convert body weight in pounds to kg's (round to the nearest 10th). Multiply weight in kilograms by the range that best fits your activity levels.</p> <p><i>Example:</i></p> <p>$150\text{lbs} / 2.2 = 68.2\text{kg}$ $68.2\text{kg}(1\text{g}) = 68\text{g}$</p>
Fats	Fats is a source of essential fatty acids which help the body absorb Vitamin A, D and E. Displayed in grams, up to the nearest whole number.

	<p>Calculation of daily fat needs is as follows:</p> <p>Convert body weight in pounds to kg's (round to the nearest 10th). Multiply weight in kilograms by 1.</p> <p><i>Example:</i></p> <p>$150\text{lbs} / 2.2 = 68.2\text{kg}$ $68\text{g of fat needed per day}$</p>
Carbohydrates	<p>Carbohydrates is being broken down into glucose, which is the main source of energy for the body's cells, tissues and organs. Displayed in grams, up to the nearest whole number.</p> <p>Calculation of daily carbohydrates needs is as follows:</p> <p>Multiply daily calorie requirements by 0.45 & 0.65 to obtain calories from carbohydrates.</p> <p><i>Example:</i></p> <p>a. $0.45(2000) = 900\text{ calories}$ b. $0.65(2000) = 1300\text{ calories}$</p> <p>Divide answers in the above step by 4 since there are 4 calories per 1 gram of carbohydrate</p> <p><i>Example:</i></p> <p>a. $900/4 = 225\text{g}$ b. $1300/4 = 325\text{g}$</p>
Nutrition progress percentage	The percentage displayed on the pie chart showing the progress towards the recommended intake for each nutrient, rounded to the nearest whole number.
RecipeAPI	An external service or API that provides a list of recipes. The system queries this API to obtain recipe suggestions.
'Discover' Page	A page where users can view recipes that match their profile. This page displays recipes with basic information and allows users to filter the list based on various criteria.
Cost	The total price of ingredients needed to make the meal using the recipe. Displayed in SGD and up to 2 decimal places.
Cuisine	The type of meal. The categories are western, italian, chinese, thai, etc.

Estimated Preparation Time	It is the duration needed to make the meal according to the recipe given. Displayed in minutes.
'Recipe' Page	A detailed page that displays comprehensive information about a specific recipe. This includes the basic data (image, name, cost, cuisine), estimated preparation time, nutrition breakdown, ingredient list with prices, and instructions.
'Add to Meal Plan' Button	A button on the recipe page that allows users to add the selected recipe to their meal plan. Clicking this button opens a popup for users to select the date and course for the meal.
Popup	A dialog that appears when users click the "Add to Meal Plan" button. It includes choice fields for selecting the date and course (breakfast, lunch, dinner, snack) for the meal. It also has a 'Confirm' button to finalize the addition to the meal plan.
Ingredient List	A compiled list of all ingredients needed to make the food from the recipe.
Grocery List	A compiled list of all ingredients needed and to be purchased for meals planned for a particular week. It includes the total number of items for each ingredient.
Ingredient Price	The cost of each ingredient displayed in SGD (Singapore Dollars), rounded to 2 decimal places of accuracy. This price is fetched using the Web Scraper API.
Past Recipes List	A display of recipes that the user has previously used. It includes the recipe names, creation dates, cuisine types, images, and costs, displayed in SGD to 2 decimal places of accuracy.
Search Bar	A text field provided for users to enter keywords related to a recipe. The search criteria must be between 1 and 50 characters long, contain any ASCII characters, and will return recipes matching the search criteria.
Sort and Filter Options	The functionalities that allow users to organize and narrow down the list of past recipes. Users can sort by criteria such as date, cuisine type, cost, estimated preparation time, and date, and apply filters using a choice field.
Recipe Page Navigation	The functionality that allows users to click on a recipe image to be directed to the recipe's detailed page, where more comprehensive information about the recipe is displayed.