

Nutrients and Calorie Calculator

This application allows users to track their daily, monthly, and annual calorie consumption, manage their profile details, and analyze nutrient percentages through a graphical user interface (GUI) built with PyQt6.

Class	Brief Description
MainWindow	This class represents the main window of the Nutrients and Calorie Calculator application. It provides a welcome screen to the users and options to sign up or sign in.
SignUpWindow	The SignUpWindow class allows new users to register by providing their details such as first name, last name, and pin code. It generates a username for the user upon successful signup
TestGenerateUsername	This unit test class is responsible for testing the functionality of generating usernames based on user details.
TestAddNewUser	The TestAddNewUser class is a unit test class designed to test the functionality of adding a new user to the system.
SignInWindow	SignInWindow enables registered users to authenticate and log in to their accounts using their username and pin code.
UserDashboard	UserDashboard serves as the interface for registered users, offering various functionalities such as adding meals, viewing consumed calories, and updating profile details.
UpdateProfileWindow	This class allows users to update their profile details, including height, weight, and calorie limits.
ViewBMI	ViewBMI displays the user's Body Mass Index (BMI) value and status based on their profile details.
AddMealWindow	AddMealWindow enables users to input details about the meals they have consumed, including meal type (e.g., breakfast, lunch, dinner, snack).
ViewDailyCalorieConsumption	This class provides users with a view of their daily calorie consumption, displaying details of meals consumed on a particular day.
ViewAnnualCalorieConsumption	ViewAnnualCalorieConsumption allows users to view their total calorie consumption over the course of a year.

ViewMonthlyCalorieConsumption	Users can use ViewMonthlyCalorieConsumption to view their monthly calorie consumption, displayed in a pie chart format.
ChangePincode	ChangePincode enables users to change the PIN code associated with their account for added security.
Utility	The Utility class contains static functions that are utilized by multiple classes. Notable methods include generate_username, which generates usernames based on user details, and draw_pie_chart, which is used to draw pie charts for displaying nutrient consumption details.

Libraries:

PyQt6: For building the graphical user interface (GUI) and handling user interactions.

CSV: For reading and writing CSV files to manage user profile data and meal information.

OS: For accessing file paths and directories within the operating system.

datetime: For validating and processing date inputs in the meal data.

Features:

- Pincode Protection
- User can change password Every user has a two csv files. One for profile data and other for saving the calories consumed for each meal
- View Daily calories consumed
- View Monthly Calories consumed
- View annual calories consumed
- View BMI
- User can select the type of meal such as breakfast, snack, lunch or dinner
- User can view percentages of the nutrients consumed.
- User can set daily calorie limit
- User can set monthly calorie limit
- User can set annual calorie limit