Tkinter Project Proposal: Calorie Tracker Application

Daphne Nguyen, Mahmood Sultan, Mohamad El Chaar, Toqa Alshwatreh

University of Toronto Mississauga

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Prof. Michael Nixon

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Our group's idea is to create an easy-to-use calorie tracking application using Python and the Tkinter library. The application will let users track their meals and their daily calorie intake. Each entry will have data like the name of the food, the number of calories, and what type of food it is (breakfast, lunch, dinner, snack). Users will be able to add, edit, and delete their entries, see their total daily calories, and have their data/info saved even after closing the window of the app using a persistence layer.

How we'll meet the project requirements

Tkinter interface: We will build the interface using the Tkinter widgets like buttons, entries, frames, labels, textboxes, and more. The layout will be designed with clear, user-friendly sections for entering new foods, showing existing ones, and showing the daily calorie total on the screen.

CRUD:

Create: Add new meal entries with calories.
Read: Show all added entries in a listbox or text format.
Update: Select an entry and modify/edit it.
Delete: Remove unnecessary or incorrect entries.

Persistence/storing data: We will use a text file or a JSON file to store the data. This will allow the program to load saved meals automatically when reopened, to make sure that the user's data is not lost.

Multiple windows/classes: We will separate our program into different classes, for example: A 'mainApp' class that's responsible for navigation and windows, then an EntryForm class that's meant for handling user inputs, and a CalorieDatabase that's responsible for saving/loading the data. We may also add a small stats window to show total calories over time.

A successful version of this project will:
- Run smoothly without crashing or freezing.
- Allow the user to add, view, edit, and delete the food entries easily.
- Save all data locally using a persistent text or JSON file.
- Display a running total of daily calorie intake.
- Have a clean and easy-to-navigate interface that is clear and consistent for new users.

Tools we will use:
- Python 3
- Tkinter
- JSON or CSV, or a txt file
- GitHub

GitHub repository link: https://github.com/sh3raaa/Project-2