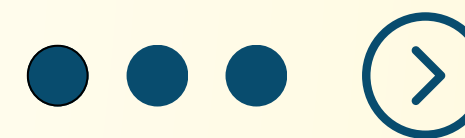




# CALHEALTH

The Wellness Calorie Tracker Application

Presented by: Mayo, Andulana



# INTRODUCTION



# CALHEALTH

- A practical tool that can help you manage your dietary goals.

## Problem Scenario

- Health and fitness sidelined in IT related fields due to sedentary work and busy schedules
- Abundance of health information online, but scattered and complex

## Sustainable Development Goals

- Our program aims to promote one of the Sustainable Developmental Goals created by the United Nations, ensuring healthy lives and promoting well-being for all at all ages
- This is answered through the features of the application which brings awareness of daily consumption and being conscious of the amount people intake.



# CALHEALTH



## Project Solution

- This project aims to make healthy living more convenient for those willing to keep track of their eating habits.
- With its simplistic interface, this app can be your stepping stone to healthy living.
- This program alone cannot guarantee you a healthy lifestyle
- However, using this program along with discipline and actively improving your eating habits, you may achieve your goal.

## Target Market

- accommodate people who have trouble keeping track of their eating habits or are self-aware of their food consumption
- providing an application that aims to give statistical results on their overall behavior.



# CALHEALTH







## Similar Application

- WebMD food calculator where it provides an inventory of meals which you can calculate overall calories based on servings
- Containing Databases of different consumed foods and adding up based on the number of servings.


DIET & WEIGHT MANAGEMENT

## Food Calculator



Get the calories, fat, carbs, protein and more for over 37,000 food and drinks. Then add them to your Daily Totals to see how your calories add up!

Search Food

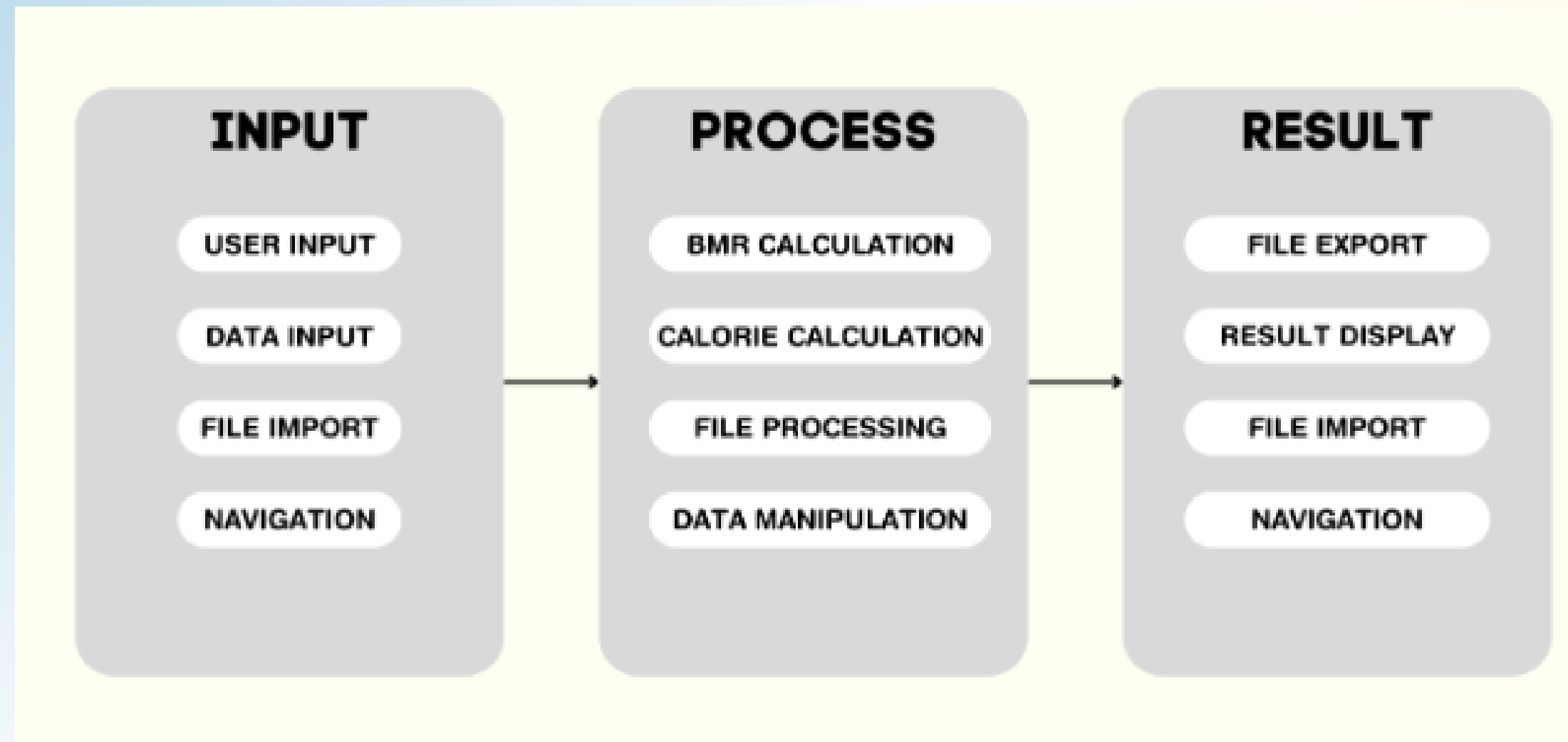


TIP: Add a brand or restaurant name to get better results.



# CALHEALTH

## Conceptual Framework







# CALHEALTH



## Scope and Limitations

- Basic GUI and functions cover existing features found in similar apps
- Calculates BMR based on Harris-Benedict formulas
- Meal planning includes extensive dictionary of uncategorized meals in a single list box
- Does not provide accurate representation of Calories based on user's daily work type
- Lack of additional information about individual meals aside from calories affects prediction realism
- Multilayer approach to displaying features is more intuitive but sacrifices simplicity and ease of use
- Application restriction to locked 800x600 aspect ratio limits usability for all screen types
- Limited to Windows platform, not portable to other devices without significant interface redesign



# CALHEALTH



## Project Solution

- ***Multilayer Graphical User Interface (Multilayer GUI)***
  - Contains multiple layers of interface with unique functionalities
- ***Username-based history system***
  - Saves previous sessions based on inputted username
- ***Directory system***
  - Includes a layered file system where user data is saved in dedicated folders
- ***Extensive Database system***
  - Provides multiple files to save data when functions are executed
    - *BMR Calculation:* Saves user's BMR data in a CSV file and presents results
    - *Meal Plan:* Imports a Txt file containing a dictionary of different items  
: Allows users to save selected meal plans and exports them to a CSV file





# CALHEALTH



## Project Solution

- *User History*: Imports various files displayed for users to view
- ***Title and Menu Interface***
  - Title interface with program title, username entry box, and start button
  - Menu interface with buttons for different features and brief information on previous session
- ***Feature Interface***
  - *BMR Calculation*: Calculate BMR and average estimated calories based on user's information
  - *Meal Planning*: Search, select, add, modify, and export meals
  - *User History*: Access existing usage history
- ***Exception handling***
  - Handles invalid/missing user entries and missing files to ensure program continues to function
- ***Navigation system***
  - Navigation buttons to move between interfaces



# PROGRAM PROTOTYPING

# NEW USER

Program Beta

# CalHealth

The CalHealth is an application designed to promote healthy living by providing health-conscious people an easy way to calculate he amount of calories eaten per meal and plan succeeding meals based on the results.

Username:

John

Start Program

# NEW USER, NO DATA

Program Beta

## Welcome to CalHealth John

User Information

Calculate Daily Caloric Intake

Plan Meals

User History

## No Existing data found

Delete User

Exit Program

# BMR CALCULATE NO DATA

Program Beta

Calorie Calculator

Age:

Gender:

☐ Male

☐ Female

Please indicate gender

Height (cm):

Weight (kg):

Calculate BMR

Proceed to Meal Plan

Return to Main Menu

# BMR CALCULATE IMPARTIAL DATA

Program Beta

Calorie Calculator

Age:

19

Gender:

☒ Male

☐ Female

Height (cm):

162

Weight (kg):

Calculate BMR

Proceed to Meal Plan

Return to Main Menu

# BMR CALCULATE INVALID DATA

Program Beta

Calorie Calculator

Age: 19

Gender: ☒ Male ☐ Female

Height (cm): sad

Weight (kg): dog

Calculate BMR

Proceed to Meal Plan

Return to Main Menu

# BMR CALCULATE

Program Beta

Calorie Calculator

Age: 19

Gender: ☒ Male ☐ Female

Height (cm): 162

Weight (kg): 80

Calculate BMR

BMR:

Maintain Weight: 1830 calories/day

Mild Weight Loss: 1665 calories/day

Weight Loss: 1501 calories/day

Extreme Weight Loss: 1171 calories/day

Proceed to Meal Plan

Return to Main Menu

# NEW USER UPDATED MENU

Program Beta

Welcome back John

Calculate Daily Caloric Intake

Plan Meals

Caloric History

User Information

Name	Data
User	John
Age	19
Weight	80
Height	162
Gender	M
BMR	1830
Maintain Weight	1830
Mild Weight Loss	1665
Weight Loss	1501
Extreme Weight Loss	1171

Delete User

Exit Program

# NEW USER LATEST BMR

Program Beta

Calorie Calculator

Age: 19

Gender: ☒ Male ☐ Female

Height (cm): 168

Weight (kg): 78

Calculate BMR

BMR:

Maintain Weight: 1832 calories/day

Mild Weight Loss: 1667 calories/day

Weight Loss: 1502 calories/day

Extreme Weight Loss: 1173 calories/day

Proceed to Meal Plan

Return to Main Menu



# NEW USER UPDATED LATEST BMR

Program Beta

Welcome back John

User Information

Calculate Daily Caloric Intake

Plan Meals

Caloric History

Name	Data
User	John
Age	19
Weight	78
Height	168
Gender	M
BMR	1832
Maintain Weight	1832
Mild Weight Loss	1667
Weight Loss	1502
Extreme Weight Loss	1173

Delete User

Exit Program

# NEW USER EXPORTED DATA

> .venv

> Datafile

> USERS

> asd

> John

John\_BMR.csv

> Jonathan

Jonathan\_BMR.csv

Jonathan\_meals.csv

User\_list.txt

meals.txt

.gitattributes

.gitignore

LICENSE

main.py

README.md

1 Name,Data

2 Date,2024-03-18

3 User,John

4 Age,19

5 Weight,80

6 Height,162

7 Gender,M

8 BMR,1830

9 Maintain Weight,1830

10 Mild Weight Loss,1665

11 Weight Loss,1501

12 Extreme Weight Loss,1171

13

14 Date,2024-03-18

15 User,John

16 Age,19

17 Weight,78

18 Height,168

19 Gender,M

20 BMR,1832

21 Maintain Weight,1832

22 Mild Weight Loss,1667

23 Weight Loss,1502

24 Extreme Weight Loss,1173

25

# MEAL PLAN INTERFACE

Program Beta

Available Meals:

Remove Meal

Greek Yogurt with Berries

Avocado Toast

Scrambled Eggs

Whole Wheat Pancakes

Smoothie Bowl

Steel-Cut Oatmeal

Smoked Salmon Bagel

Veggie Omelette

Peanut Butter Toast

Granola with Milk

Calories per serving:

Custom Meal:

Meal Name:

Calorie Count:

Add Meal

Add to Meal

Selected Meals:

Delete

Save Meal Plan

Total Calories: 0

Proceed to results

Return to Main Menu

# MEALPLAN ADD

Program Beta

Available Meals:

Pancakes with Maple Syrup

Remove Meal

Whole Wheat Pancakes

Pancakes with Maple Syrup

Vegan Pancakes

Calories per serving: 400

Custom Meal:

Meal Name:

Calorie Count:

Add Meal

Add to Meal

Selected Meals:

Delete

Save Meal Plan

Pancakes with Maple Syrup - 400 Calories

Total Calories: 400

Proceed to results

Return to Main Menu

# MEAL PLAN ADD CUSTOM MEAL

Program Beta

Available Meals:

Milk Tea (Hokkaido)

Remove Meal

Calories per serving: 140

Custom Meal:

Meal Name:

Milk Tea (Hokkaido)

Add

Calorie Count:

400

Add Meal

Selected Meals:

Delete

Save Meal Plan

Pancakes with Maple Syrup - 400 Calories

Milk (whole) - 150 Calories

Chocolate Banana Bread - 140 Calories

Total Calories: 690

Proceed to results

Return to Main Menu

# MEAL PLAN ADD CUSTOM MEAL RESULT

Program Beta

Available Meals:

Milk Tea (Hokkaido)

Remove Meal

Milk Tea (Hokkaido)

Calories per serving: 400

Custom Meal:

Meal Name:

Add

Calorie Count:

Add Meal

Selected Meals:

Delete

Save Meal Plan

Pancakes with Maple Syrup - 400 Calories

Milk (whole) - 150 Calories

Chocolate Banana Bread - 140 Calories

Total Calories: 690

Proceed to results

Return to Main Menu

# MEAL PLAN DELETE

Program Beta

Available Meals:

Avocado Toast

Remove Meal

Greek Yogurt with Berries

Avocado Toast

Scrambled Eggs

Whole Wheat Pancakes

Smoothie Bowl

Steel-Cut Oatmeal

Smoked Salmon Bagel

Veggie Omelette

Peanut Butter Toast

Granola with Milk

Calories per serving: 300

Custom Meal:

Meal Name:

Add

Calorie Count:

Meal

Selected Meals:

Delete

Save Meal Plan

Pancakes with Maple Syrup - 400 Calories

Chocolate Banana Bread - 140 Calories

Add to Meal

Total Calories: 540

Proceed to results

Return to Main Menu

# MEAL PLAN DELETE RESULT

Program Beta

Available Meals:

Avocad

Remove Meal

Rice Cakes with Avocado

Turkey and Avocado Wrap

Mango Avocado Salad

Avocado Tuna Salad

Chickpea and Avocado Salad

Chocolate Avocado Mousse

Calories per serving: 300

Custom Meal:

Meal Name:

Add

Calorie Count:

Meal

Selected Meals:

Delete

Save Meal Plan

Pancakes with Maple Syrup - 400 Calories

Chocolate Banana Bread - 140 Calories

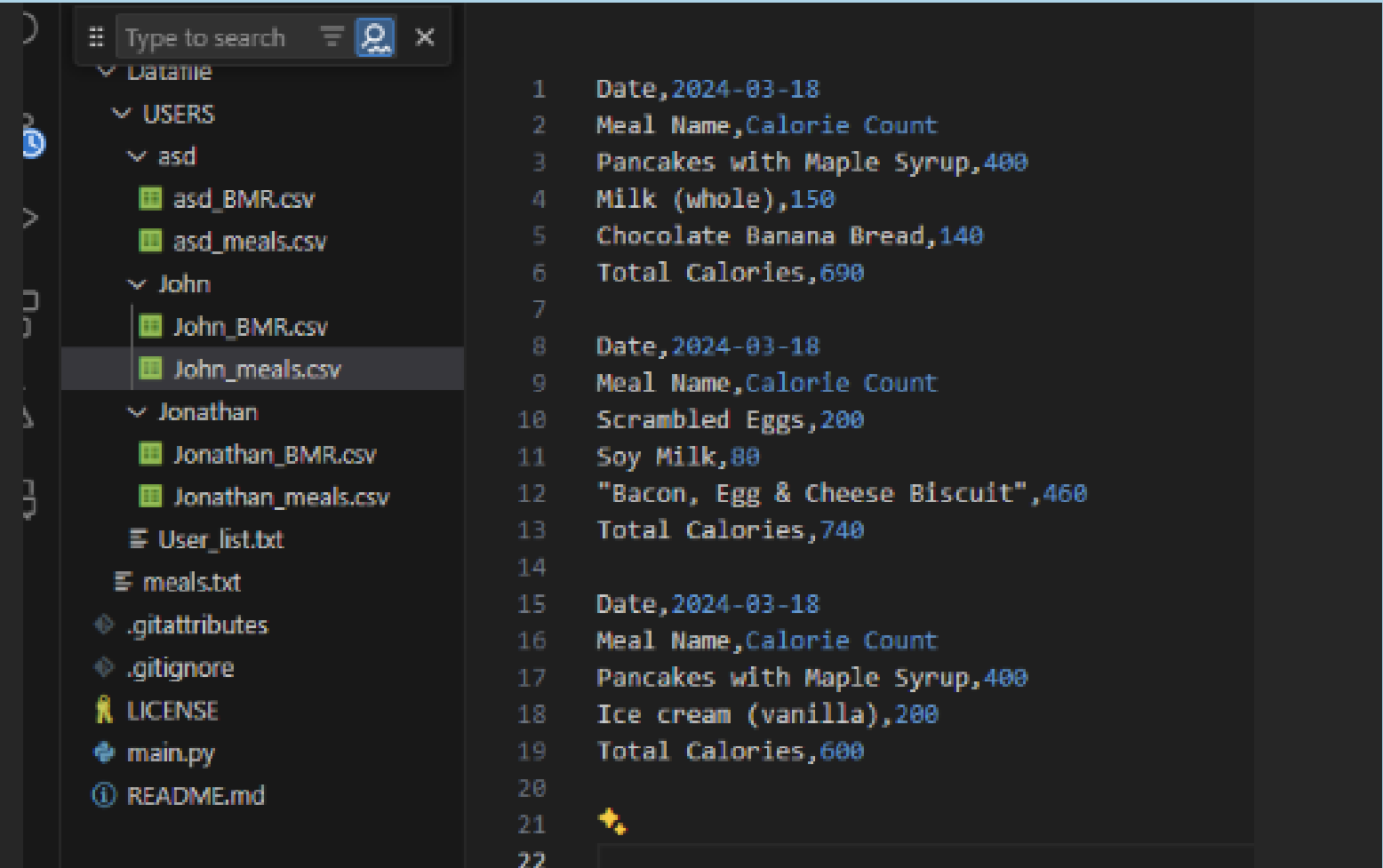
Add to Meal

Total Calories: 540

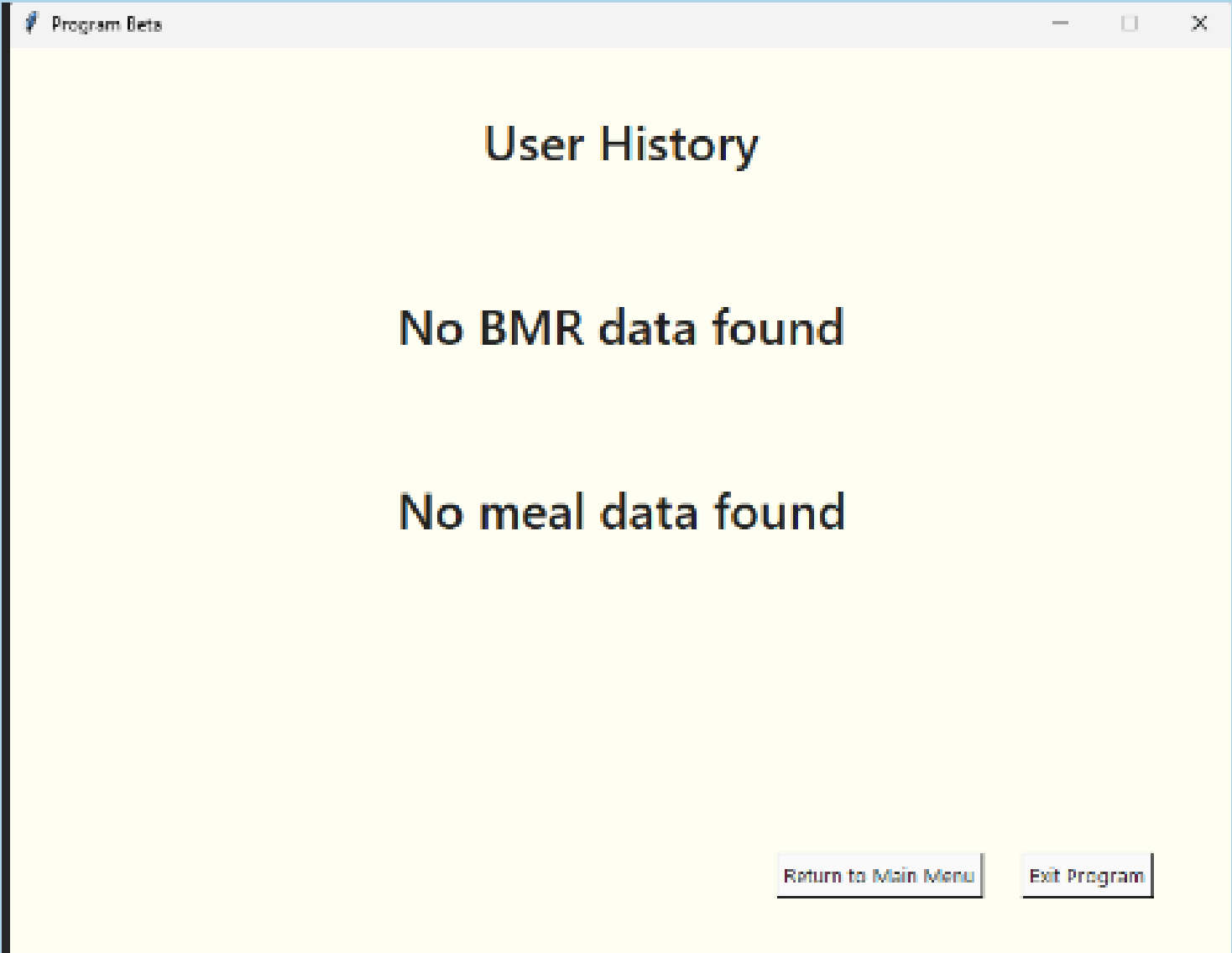
Proceed to results

Return to Main Menu

# MEAL PLAN EXPORT



# USER HISTORY NO DATA



# USER HISTORY IMPARTIAL DATA

Program Beta

User History

Name	Data
Date	2024-03-17
User	Jonathan
Age	19
Weight	80
Height	162
Gender	M

Date	
Meal Name	Calorie Count
Pancakes with Maple Syrup	400
Milk (whole)	150
Chocolate Banana Bread	140
Total Calories	690
Date	2024-03-18

Return to Main Menu

Exit Program

# USER HISTORY DATA

Program Beta

User History

No BMR data found

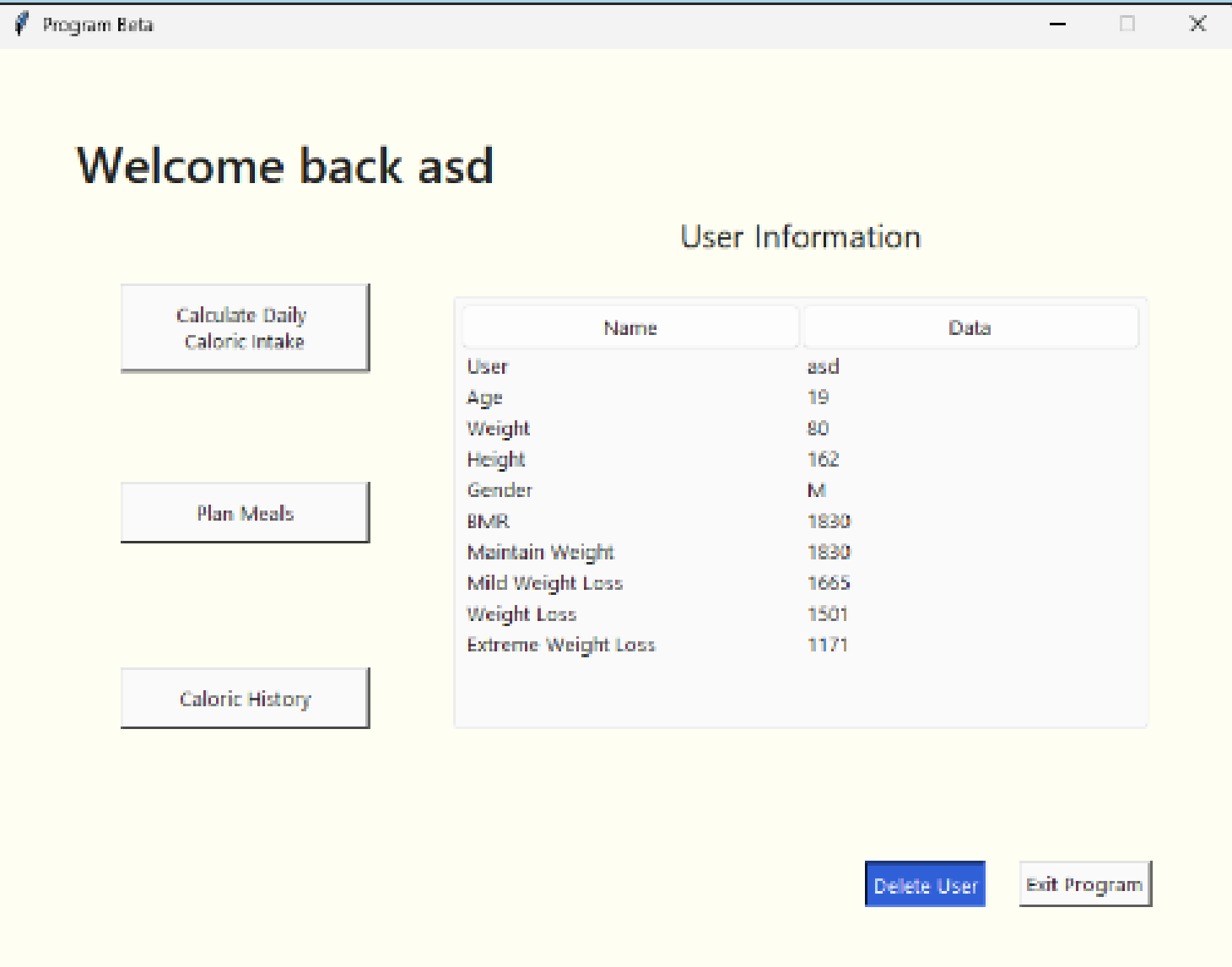
Date	2024-03-18
Smoothie Bowl	200
Total Calories	200
Date	2024-03-18
Smoothie Bowl	200
Veggie Omelette	300

Return to Main Menu

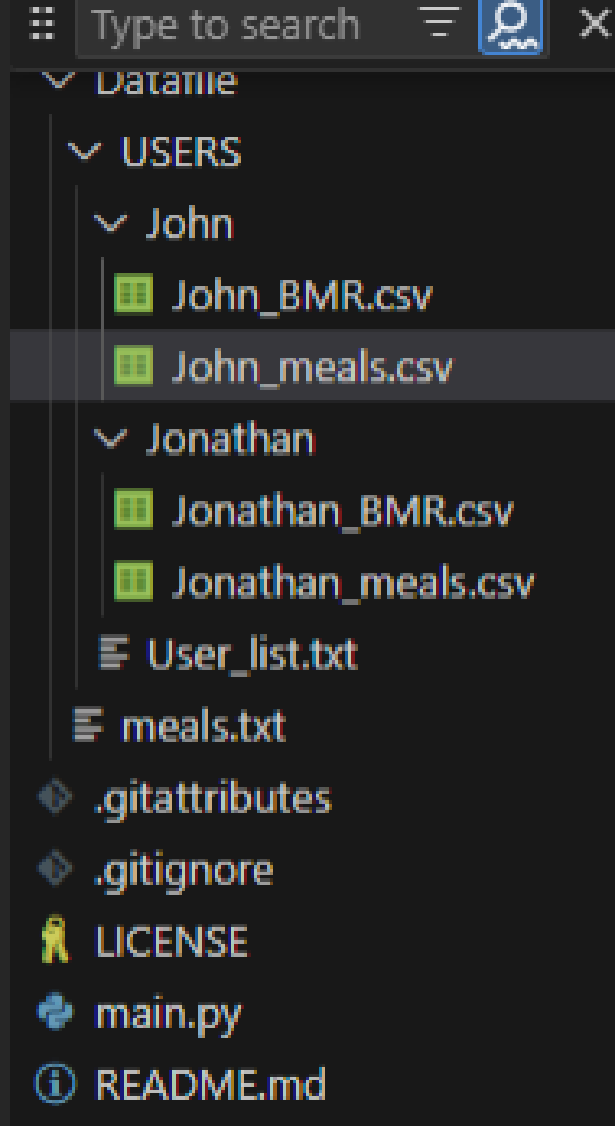
Exit Program



# DELETE USER



# DELETE USER RESULT





Femcelz



# THANK YOU