The impact of daily diet and exercise on weight

Ren-Song Ko, Wen-Shou Hsu, and Tzu-Chi Hsiao

Official website is available here.
Source code is available here.

Floor One, Innovation Building
National Chung Cheng University, Chiayi county, Taiwan

Outline

- Introduction
- Tools for develop model
- Results
- Conclusion

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Introduction

- People emphasize their health and strengthen it by exercising at the gym, in the park, or even at home.
- We aim to establish a website to help them check whether their healthy is normal.
- Given their age, gender, height, weight, eating habits, activity level, goal, daily calories and After days.
- Displays result with suggestions and amounts of each nutrient in histogram.

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Tools for develop model

- Programming Language: Python, HTML, CSS
- Data transmitting: Flask
- Aesthetic: JavaScript

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Results

Our anticipate

- Accurately calculate the actual weight using a series of indexes, such as BMR, TDEE.
- Provide a histogram to show the amounts of each nutrient.

Our model anticipate

- Provide suggestion, different histograms for each nutrient.

Results (Continued)

Suggestion: You are underweight. Consider increasing your calorie intake and doing strength training.

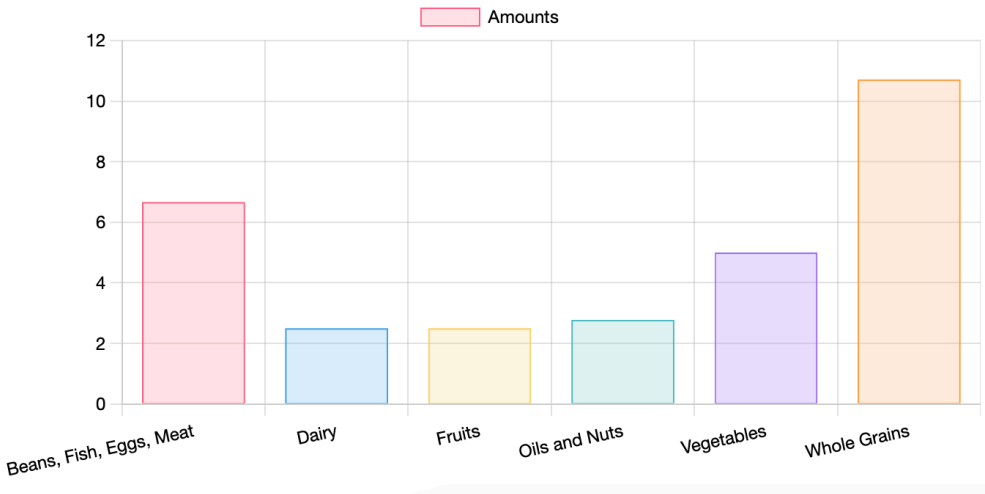

Figure I. Results of entering data.

Results (Continued)

Sedentary	**Light**	**Moderate**	**Active**	**Very active**
1.2	1.375	1.55	1.725	1.9

Table I. Consume calories from the exercise.

Vegetarian	**Meat**	**Lacto ovo vegetarian**	**Balanced**
1800	2500	2200	2000

Table II. Consume calories from the daily diet.

Results (Continued)

$$\begin{aligned}\text{Male's BMR} = &(9.99 \times \text{weight}) + (6.25 \times \text{height}) \\ &- (4.92 \times \text{age}) + (166 \times \text{gender} - 161) \\ \text{Female's BMR} = &(9.99 \times \text{weight}) + (6.25 \times \text{height}) \\ &- (4.92 \times \text{age}) + (166 \times \text{gender} - 161)\end{aligned}$$

Results (Continued)

$$\text{Each day} = \text{BMR} \times \text{Activity}$$

$$\text{Intake} = \text{Daily diet type}$$

$$\text{Calorie deficit} = \text{Intake} - \text{Calories per day}$$

$$\text{Weight changes} = \frac{\text{Calorie deficit}}{7700}$$

$$\text{Actual weight} = \text{Weight} + \text{Weight changes} \times \text{After days}$$

$$\text{BMI} = \frac{\text{Weight}}{\text{Height}^2}$$

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Conclusion

- Using precise tools to calculate the actual weight, ensuring that users receive accurate and reliable measurements for better health management.
- Providing accurate options for computation, allowing users to input various parameters and receive tailored recommendations based on their unique needs.
- We learned fundamental front-end and back-end development, including figure display using JavaScript and Python, to develop an application that seamlessly integrates user data and visualizes results effectively.

Acknowledgment

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Thank you for listening! We wish you a pleasant day.