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

Outline

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.

Outline

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)

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)

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

Results (Continued)

Each day $=$ BMR $\times$ Activity

Intake $=$ Daily diet type

Calorie deficit $=$ Intake $-$ Calories per day

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

Actual weight $=$ Weight $+$ Weight changes $\times$ After days

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

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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.

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