

The impact of daily diet and exercise on weight

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Official website is available here.

Source code is available here.



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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.

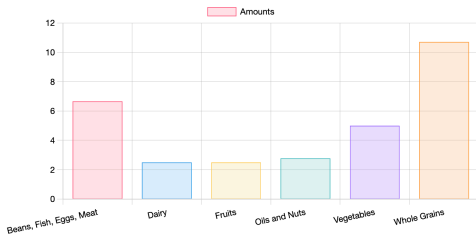


Figure I. Results of entering data.

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)

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

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

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.