

ITE154 Project #2

How many calories should I eat if I want to lose weight? Gain weight? Maintain weight?

Technically, there is no magic number of calories we should all eat each day to lose weight. While most people can maintain weight eating around 2000 calories, you can assess your own personal caloric needs with a little math.

To estimate how many calories you should consume in order to maintain your weight, you'll need to do a little math. By using a simple formula called the Harris-Benedict principle, you can assess your basal metabolic rate -- also known as your BMR. Then, to lose weight, you'll need to cut the right number of calories, burn extra calories, or combine both strategies (which is the method that most experts recommend).

Write a JavaScript program that allows the user to enter the following information...

Data	Details
Gender	Male or Female, select menu
Weight	In pounds, text field
Height	In pounds, text field
Age	In pounds, text field
Activity Level	Value 1 – 4; 1 being not active where 4 is very active, select menu

Your Basal Metabolic Rate (BMR) is the amount of energy your body needs to function. We use about 60% of the calories we consume each day for basic bodily functions such as breathing. Other factors that influence your BMR are height, weight, age and sex.

First, you must calculate your BMR based on the selected gender...

Gender	Formula to calculate BMR
Men	$66 + (6.3 \times \text{weight}) + (12.9 \times \text{height}) - (6.8 \times \text{age})$
Women	$655 + (4.3 \times \text{weight}) + (4.7 \times \text{height}) - (4.7 \times \text{age})$

Next, you need to factor in the activity level, which is an increase of the BMR by a percent...

If activity level is equal to	Multiply the BMR by
Level 1 - Sedentary - little or no exercise	20%
Level 2 - Lightly Active - exercise 1 - 3 times/week	30%
Level 3 - Moderately Active - exercise 3 - 5 times/week	40%
Level 4 - Very Active - exercise 6 - 7 times/week	50%

Add this amount to your BMR, this will give you your final answer.

The result will tell you how many calories you need to eat per day to maintain your weight. Any more calories per day will result in weight gain; fewer calories per day will result in weight loss. If you subtract 500 calories from this number, you will lose 1 pound per day. If you go over this amount by 500 calories, you will gain 1 pound per day.

Your output will display the amount of calories needed to maintain weight, the amount needed to gain 1 pound per week and the amount needed to lose 1 pound per week.

I have included 2 sample runs on the following 2 pages.

I have provided the HTML/CSS template file here...

http://newton.ncc.edu/gansonj/ite154/templates/ite154_proj3_sp19_template.txt

Also...

- Code must be properly indented and brackets must be properly aligned. Code sections must use consistent line breaking. All calculations must have spaces before and after operands.
- All page formatting must be done with CSS.
- The JavaScript code works with no errors.
- All decimals must be formatted to 0 decimal places (use toFixed() in your output).
- You will lose points for variables that are not intuitively named. I should look at a variable and know exactly what it represents by the name you have given.

Sample screen shot....

The screenshot shows a web browser window with the address bar displaying "my page" and the page title "ITE154 Calorie Calculator". The main content area features a form titled "The Nifty ITE154 Calorie Counter" set against a background of various fruits and vegetables. The form includes the following fields and options:

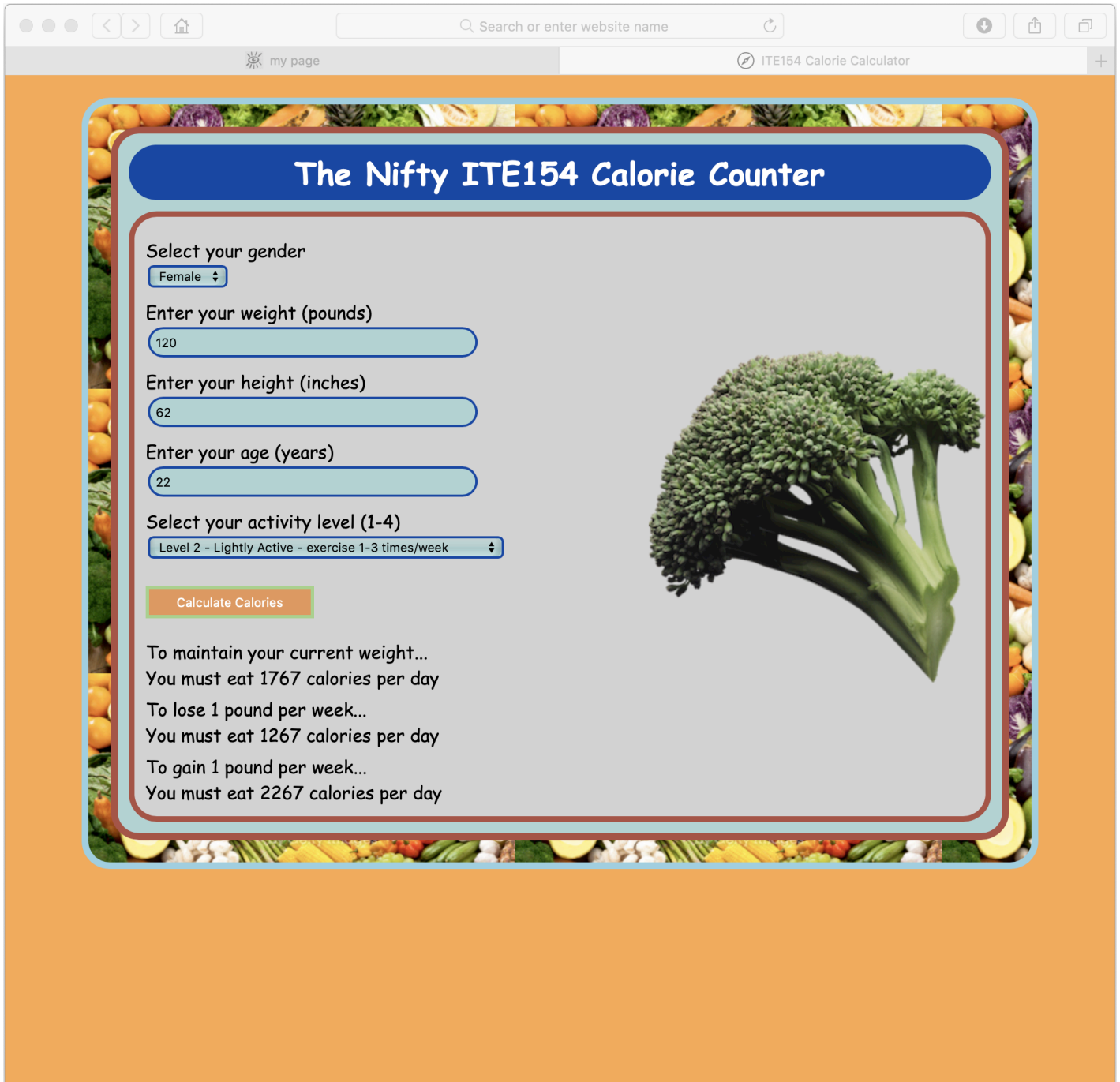
- Select your gender:** A dropdown menu with "Male" selected.
- Enter your weight (pounds):** A text input field containing "150".
- Enter your height (inches):** A text input field containing "66".
- Enter your age (years):** A text input field containing "44".
- Select your activity level (1-4):** A dropdown menu with "Level 1 - Sedentary - little or no exercise" selected.

Below the form fields is a green button labeled "Calculate Calories". To the right of the form is a large, detailed image of a head of broccoli.

Below the "Calculate Calories" button, the following calorie recommendations are displayed:

- To maintain your current weight...
You must eat 1876 calories per day
- To lose 1 pound per week...
You must eat 1376 calories per day
- To gain 1 pound per week...
You must eat 2376 calories per day

Sample screen shot....



The screenshot shows a web browser window with the address bar displaying "my page" and the page title "ITE154 Calorie Calculator". The main content area features a form titled "The Nifty ITE154 Calorie Counter" set against a background of various fruits and vegetables. The form includes the following elements:

- Select your gender:** A dropdown menu with "Female" selected.
- Enter your weight (pounds):** A text input field containing "120".
- Enter your height (inches):** A text input field containing "62".
- Enter your age (years):** A text input field containing "22".
- Select your activity level (1-4):** A dropdown menu with "Level 2 - Lightly Active - exercise 1-3 times/week" selected.
- Calculate Calories:** A green button.
- Results:**
 - To maintain your current weight... You must eat 1767 calories per day
 - To lose 1 pound per week... You must eat 1267 calories per day
 - To gain 1 pound per week... You must eat 2267 calories per day
- Image:** A large, detailed image of a head of broccoli is positioned to the right of the input fields.