6. BMI Calculator

Student learning outcomes

- Students will create a form to perform a mathematical calculation on user-supplied data.
- Students will explore how to let users enter data in a way that they easily understand.
- Students will learn how to make a more extensive form look nice.

Real world applications:

- Medical and health applications are among the most popular and highest revenue producing.
- Students need to pay more attention to their everyday health choices.
- Applications that have the best user interface will gain the most market share.

Assignment requirements:

- The page has a form where the user can enter height and weight.
- The script calculates the BMI and displays whether the weight is in the normal range.
- User interface question: what is the best way for users to enter height and weight?
- HTML elements used:
    - Input text
    - Input submit
    - Label (new)
- JavaScript concepts:
    - Events, event handlers, onclick
    - getElementById
    - Input field values
    - parseFloat()
    - Cascading if_else statements
    - Using NaN and isNaN() to detect input errors
    - Using toFixed() to reduce the number of decimal places