# Project #1 Weight Status Advice for Children

According to Centers for Disease Control and Prevention (CDC), Body Mass Index (BMI) is a number calculated from a person's weight and height. This index provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems (https://www.cdc.gov/healthyweight/assessing/bmi/index.html).

If a person’s weight is in pounds (lb) and height is in inches (in), the Body Mass Index is calculated by using the following formula:

While for adults age 20 and older, the BMI is interpreted using standard weight status categories that are the same for all ages and for both men or women, for children age 2-19, the BMI interpretation is more complicated depending on children’s age and sex. Please refer to the page at CDC (<https://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html>) for detailed discussion of interpretation of children’s BMI and pay special attention to the two growth charts attached in this page.

Please write a program that reports a child’s weight status category and provides good advice to a user regarding risks of underweight and obese status and ways to address any concerns. The user will input the sex, age in years, weight in pounds, and height in feet. Your program will convert height into inches first and compute the BMI using the given formula. Then your program will use the criteria in the growth charts to determine the weight status category and display messages regarding the child’s weight status and appropriate advices. In the interest of time, you may limit the age to 2-5 years old.

Please use the concepts that we have learned so far, especially the expressions, functions, if-elif-else statements, and best practices for program design including function design recipe and suitable input/print statements to make this application a well-designed and user friendly program.

Please work on this project independently. If you have questions you may post them on Canvas, Piazza or via email to me. However, you may not ask for or copy answers directly. Please turn a Python file (.py) with the source code of the program and also a MS Word with descriptions of the program and examples of running the program.