CS0008: Intro to Python
Weekly Assignment 3
The if statements

Part 1: Understanding the if statement and setting flags (2 pts)

The if statement in Python is a single alternative decision structure. It is used when one set of code should execute only if a condition is true. Otherwise that code is skipped. Let the user input their temperature and write an if statement that sets a flag called *fever* to True if the user enters a *temperature* greater than 98.6. In addition to setting the flag, also print out "skip school and see a doctor" if the *temperature* is greater than 98.6. Then in the end, after the if structure, print out "Fever was set to x because temperature was y" where x is the value of *fever* and y is the value of *temperature.*

Part 2: Understanding the if-else statement and using flags (3 pts)

The if-else statement is typically used when two alternative paths in the code should be taken depending on if a condition is true or false. Let the user input their *temperature* and write an if-else statement that sets a flag called *fever* to True if the user enters a *temperature* greater than 98.6. Otherwise, set the flag to False. In addition to setting the flag to True, please print out "skip school and see a doctor" if the temperature is greater than 98.6. Otherwise (if the *temperature* is less than 98.6), print out "stop faking and head to class". Then in the end, after the if-else structure, check the *fever* flag and print out the following message depending on whether it was set (True) or not set (False): "Fever was set to x because temperature was above/below 98.6" where x is the value of *fever*. Print "above" or "below" depending on whether the flag was set.

Part 3: Understanding the if-elif-else statement (5 pts)

The if-elif-else structure is used when there are multiple conditions and only one should be met. Once one of the conditions is met, the associated code for that condition should be executed. For this part, let the user enter three integer numbers (numbers without decimals) and then print out the numbers in a sorted order from smallest to largest. Note that there are several ways to do this including one large if-elif-else statement, a smaller if-elif-else statement (less conditions) with nested if statements, and you can even utilize flags if you want. Do whatever method you are comfortable with but please make sure to at least use the if-elif-else structure since it is the ideal structure (that we have learned so far) to use for this problem.