CS 1030
HW # 6

Due Date: July 27, 2018 (11:55 PM)

1. Write a Python program named SalesTransaction. This program should ask the user to enter the price and name of purchased item. The program should then compute the state and county sales tax. Assume the state sales tax is 4 percent and the county sales tax is 2 percent. The program should display the item name, price of the item, the state sales tax, the county sales tax, the total sales tax, and the total of the sale (which is the sum of the amount of purchase plus the total sales tax). Hint: Use the value 0.02 to represent 2 percent, and 0.04 to represent 4 percent.

2. Write a Python program named BMI. The body mass index (BMI) is often used to determine whether a person with a sedentary lifestyle is overweight or under-weight for his or her height. A person's BMI is calculated with the following formula:

   $$BMI = (Weight * 703) / (Height^2)$$

   where weight is measured in pounds and height is measured in inches. The program should ask the user for their weigh and height, calculate and display their BMI, and display a message indicating whether the person has optimal weight, is underweight, or is overweight. A sedentary person's weight is considered optimal if his or her BMI is between 18.5 and 25. If the BMI is less than 18.5, the person is considered underweight. If the BMI value is greater than 25, the person is considered overweight.

3. A software company sells a package that retails for $ 99. Quantity discounts are given according to the following table:

Quantity	Discount
10-19	20%
20-49	30%
50-99	40%
100 or more	50%

   Write a program that asks the user to enter the number of packages purchased. The program should then display the amount of the discount (if any) and the total amount of the purchase after the discount. Use nested if else statement.

4. Write a program that ask the user to enter his/her first name and last name and display the following: full name, initials (first and last), and length of full name.

5. Write a Python program that will count the number of vowels in the given string.

What to Hand in

1. Submit python files through Moodle.