Instructions

- Follow each step/objective in sequential order.
- Practice the skills from each objective to ensure mastery.
- After completing this guide, mark your attendance by submitting your progress to Canvas.
- *Remember, practice makes perfect!*

Objective: <mark>Practice with List Comprehensions</mark>

Exercise 1:
Write code that creates a list of the squares of integers from 0 to 9. Then, produce the same output using a list comprehension.
Output: [0, 1, 4, 9, 16, 25, 36, 49, 64, 81]

Exercise 2:
Write code that creates a list of odd numbers up to 50. Then, produce the same output using a list comprehension.
Output: [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49]

Exercise 3:
Write code that creates a list of characters from a string. Then, produce the same output using a list comprehension.
text = 'Hello World'
Output: ['H', 'e', 'l', 'l', 'o', ' ', 'W', 'o', 'r', 'l', 'd']

Exercise 4:
Convert a list of numbers into a list of tuples by grouping the numbers into pairs.
numbers = [20,1,30,2,40,4,50,5,60,2,70,20]
Output: [(20, 1), (30, 2), (40, 4), (50, 5), (60, 2), (70, 20)]

Exercise 5:
Using a Dictionary Comprehension to Count Vowels.
text = 'Life is like riding a bicycle. To keep your balance, you must keep moving.'
vowels = 'AEIOU'
Output: {'A': 3, 'E': 8, 'I': 7, 'O': 4, 'U': 3}