**Basic List/Tuple challenges**

Initialise a list called ***digits*** storing each of the digits 0 to 8 as integers.

1. Print the list
2. Print the third item from the list.
3. Use .append() to add the integer 9 to the list. Then print the list.
4. Use .remove() to remove the integer 0 from the list. Then print the list.
5. Use .sort() to order the list, then print the list. Use .sort() to re-order the list in reverse order, then print the list again.
6. Use len() to find the number of elements in the list, then print this.
7. Use a For loop to print each element from the list separately.
8. Use a For loop to square each element from the list and then append the result to a new list called ***squares***. Print the new list.

Create a new empty list called ***shopping***\_***list***.

1. Use a While loop to allow someone to append items to the shopping list until they key in “stop”.
2. Use a While loop to allow someone to append items to the shopping list until the number of items reaches 10.
3. Use .sort() to order the list, then print the list.
4. Use .replace() to replace the 3rd item with “ketchup”. Use .sort() to re-order the list, then print the list again.
5. Use a For loop to identify each element from the list that begins with a vowel. Items beginning with a vowel should be placed in a new list called ***vowel\_items***. These items should be removed from the original list. Print both lists.
6. Create a new list containing the strings: [“On”, “a”, “dark”, “dessert”, “highway”]. Join the strings in the list into a single string using .join()
7. Join the strings in the list into a single string where, instead of spaces between the words, there are hyphens.
8. Input a user inputted sentence as a string. Convert the sentence into a list containing the individual words.
9. Slice a list in half producing two new separate lists called ***firsthalf*** and ***secondhalf***.