**Lab 3**

**Problem 1:**  
Write a Python function to multiply all the numbers in a list.  
Sample List : (8, 2, 3, -1, 7)  
Expected Output : -336  
Execute the function with at least 3 different lists of numbers.

# Creating 3 list along with sample list

list1 = [8, 2, 3, -1, 7]

list2 = [2, 4, 6, 8, 10]

list3 = [2, 4, 3, 9, 4]

list4 = [10, 9, 8, 7, -6]

# Creating function to multiply all numbers in a list

def multiply(numbers):

total = 1

for x in numbers:

total = total \* x

return total

multiply(list1)

>>> -336

multiply(list2)

>>> 3840

multiply(list3)

>>> 864

multiply(list4)

>>> -30240

**Problem 2:**Write a Python function that accepts a string and calculate the number of upper  
case letters and lower case letters.  
Sample String : 'The quick Brown Fox’  
Execute the function with at least 2 different phrases

string1 = ('The quick Brown Fox')

string2 = ('Im a Dental Hygienist')

string3 = ('Its Almost SUMMER TiMe')

# Creating function that accepts a string and calculates the

# number of upper case letters and lower case letters.

def ulcount(string):

upper\_c = 0

lower\_c = 0

for i in string:

if i.isupper():

upper\_c = upper\_c + 1

elif i.islower():

lower\_c = lower\_c + 1

else:

pass

print('String: ', string)

print('Number of Upper Case Letters: ', upper\_c)

print('Number of Lower Case Letters: ', lower\_c)

ulcount(string1)

ulcount(string2)

ulcount(string3)

>>>

String: The quick Brown Fox

Number of Upper Case Letters: 3

Number of Lower Case Letters: 13

String: Im a Dental Hygienist

Number of Upper Case Letters: 3

Number of Lower Case Letters: 15

String: Its Almost SUMMER TiMe

Number of Upper Case Letters: 10

Number of Lower Case Letters: 9

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