Module 5 Assignment

Basic Functional Programming

# Instructions

Create a jupyter notebook called ‘module5\_assignment’ and use it to answer the homework problems below. Each one of the homework problems below should only take about 1 to 4 lines.

## Problem 1

Create the following variable, my\_word\_list = [‘apple’, ‘orange’, ‘banana’]. Then, use the map function (and lambda keyword) to produce the list [‘\_apple’ ,’\_orange’, ’\_banana’]. Assign the list to the variable, my\_new\_word\_list, and print it.

## Problem 2

Create the following variable, my\_state\_list = [‘CA’, ‘OR’, ‘NY’, 'OR’]. Use the filter and lambda keyword to produce the list [‘CA’, ‘NY’]. Assign this list to the variable my\_new\_state\_list, and print it.

## Problem 3

Create the following variable, my\_number\_list = [1, 2, 3, 4, 5]. Use a list comprehension to multiply each number by 3, and produce the list [3, 6, 9, 12, 15]. Assign this to the variable, my\_new\_number\_list, and print it.

## Problem 4

Create the following two lists, list\_of\_words = [‘love’, ‘the’, ‘outdoors’, ‘with’ , ’passion’], and words\_to\_temove = [‘the’, ‘with’, ‘of’, ‘a’]. Then create a new list that only contains the words in list\_of\_words that are not in wordsToRemove. Do this with a list comprehension. You will have an ‘if’ statement in your list comprehension. We did something similar in the lectures.

## Problem 5

Repeat problem 4, except this time accomplish it using the filter function, instead of using a list comprehension.

# How Turn In The Assignment

Download the notebooks as a Python file (Go to the file menu, in Jupyter notebooks, and choose "Download as…", then choose python to download as a python file) and submit the assignment.

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