Assignment 7 — INFORMATION ARCHITECTURE, FALL 2019

DUE : 10:00 AM SATURDAY, NOVEMBER 16

Problem 1. Write a program to print each line of a file in reverse order.
Hint : A stack would be helpful.

Problem 2. Assume that all values in dictionary D are integers. Write a
Python program to sum all the items in D. Example:

- $\{$'a':10, 'b':24$\} \rightarrow 34$

Problem 3. Create a function that returns the frequency distribution of a
list. This function should return a dictionary object, where the keys are the
unique elements and the values are the frequency in which those elements
occur. If given an empty list, return an empty object.
Example:

- [1,2,3,2,1] $\rightarrow \{$1:2, 2:2, 3:1$\}$

- ['blue', 'yellow', 'yellow', 'red', 'yellow', 'blue'] $\rightarrow \{$'blue':2,
  'yellow':3, 'red':1$\}$

```python
def get_frequency(L): # L is the input list
    # implement this function
```

Problem 4. Write a Python program to combine dictionaries adding values
for common keys.
Example:

- [$\{$'a':1, 'b':2$\}$, $\{$'b':5, 'c':7$\}$, $\{$'a':2, 'd':10$\}$] $\rightarrow \{$'a':3,
  'b':7, 'c':7, 'd':10$\}$

```python
def merge_dictionary(L): # L is the input list of dictionaries
    # implement this function
```