# Homework 1

MSAN 697, Diane Woodbridge Due: Nov 3<sup>rd</sup> (Midnight (PST))

## Description

Given input file, "walmart\_search\_san\_francisco.json" (Merchandise information containing "San Francisco"), complete the python scripts to answer Q1-Q4 (hw1\_main.py,

json\_key\_vaue.py, postgres\_function.py). \*Do not add additional libraries or change the function definition.

Submit the .zip file- the name of your zipped file should be

MSAN697\_HW1\_LastName\_Firstname.zip on Canvas.

## Q1. (10%)

• Complete "get\_data\_value()" function (json\_key\_value.py) to retrieve the value of "totalResults()" in walmart search san francisco.json.

## Q2. (10%)

• Complete "count\_data()" function (json\_key\_value.py) to retrieve the actual number of objects(item) in "items" in Walmart\_search\_san\_francisco.json.

### Q3. (50 %)

- Complete "create\_table()" function in "postgres\_function.py" to create a table with given field names and types.
- Create a table called "inventory" with "itemId" (integer) and "qty" (integer, and should be the last 2 digts of itemId). Insert all the items from the json file.
- Create a table called "items" with "itemId" (integer), "name" (varchar), "shortDescription" (text), "customerRating" (real), "numReviews" (integer) Insert all the items from the json file.

### Q4. (20 %)

- Complete "select\_data()" function in "postgres\_function.py" to find data from a table satisfying given constraints.
- Find "MLB Women's San Francisco Giants Short Sleeve Top"'s ItemId and QTY.

Q5. (10 %) Name the fields in the original input data(.json) that is not included in the item table (Least at least 5 in "Q5\_Answers.txt".).

### **OUTPUT EXAMPLE:**

```
ML-ITS-123456:Answer_Code dwoodbridge$ python hw1_main.py
123
100
(12345, 45)
```