## Northeastern University

Course: CS6020

**Assignment:** Module 4 - Data Import - A

Total Points: 100

Date Due: Posted on Blackboard

## Learning Objectives

In this assignment, you will learn how to:

read and write Excel files

shape data

## **Tasks**

Before diving into the programming problems, study the data file "2013 Geographric Coordinate Spreadsheet for U.S. Farmers Markets 8'3'1013" that is provided for the assignment:

- 1. (25 Points) Load the data file into a data frame.
- 2. (50 Points) The seasons are not standardized and would make analysis difficult. Create six levels of seasons: Summer, Fall, Winter, Spring, Year-Round, Half-Year and convert each provided season (in the Season1Date column) to one of the seasons. Come up with reasonable rules, for example, June to August would be Summer, while 5/1 to 10/30 would be Half-Year. You need to use string processing functions to parse the strings and shape the data into the categories. If there are missing end dates, ignore the entire row.
- 3. (25 Points) Write a retrieval function that allow a data scientist to find which markets accepts WIC.