

# Northeastern University

**Course:** DA5020  
**Assignment:** Module 4 - Data Import - C  
**Total Points:** 100  
**Date Due:** Posted on Blackboard

## Learning Objectives

In this assignment, you will learn how to:

- read and parse XML
- retrieve data from XML

## Tasks

1. (25 Points) Load and then parse the XML document at the URL (<http://www.cs.washington.edu/research/xmldatasets/data/auctions/ebay.xml>) using `xmlTreeParse()`. The data sets contains bidding information about items on eBay. Create any intermediate data objects as deemed necessary to write a function named `moreFiveBids()` to answer the following question: how many auctions had more than 5 bids? Use the function to output the answer.
2. (75 Points) Take a look at the data set on trades during a single day for ESZ13 futures trades at the URL <http://www.barchartmarketdata.com/data-samples/getHistory15.xml>. After loading the data, write and use the following functions to answer these retrieval queries:
  - a. `highestClosingPrice()` answers the question: what was the highest closing price for the security?
  - b. `totalVolume()` answers the question: what was the total volume traded?
  - c. `averageVolume()` answers the question: what was the average trading volume during each HOUR of the trading day? The function should place the result into a data frame containing the hour and average trading volume for that hour.