# CS 591/791 – Fall 2012, Assignment 2
### Notebooks due at NOON on Tuesday September 11

Your second assignment is to create a Sage notebook that presents a description and visualization of data from an A/B test of two alternative website designs.

**Problem Statement:** Your Web development staff has conducted an A/B test of the conversion funnel on the two versions of your website, according to the methodology we discussed in class today. For each user, they logged information that you requested, including whether or not the user converted, and the purchase amount, in the event that they did convert. The data will be stored as two .csv's on the class website by Friday, named websiteA.csv and websiteB.csv. Each line corresponds to a distinct user.

To use Sage, you will need to open a (free) account at sagenb.org to get started. Then, programming in a Sage notebook, first start with a basic interpretation of the data, and then move to a statistical analysis of the data. Your objective should be a justification to either roll out website B, continue the experiment (and specifying an estimate of how much more time will be needed), or to stick with website A. As appropriate, you may use any of the methods described today, including z-scores, T-tests, the Wald and Wilson methods for confidence intervals, or Chernoff bounds. Keep your presentation short and to the point.

**Submission:** Share your Sage notebook with me by no later than NOON on Tuesday. Click the Share button from your document and add my user name: "John_Byers". We will take a look at a few of the visualizations to start class on Tuesday. (All semester long, students who are picked to present will be given "immunity" from having to do the next assignment.)