# Project Description

I will write a program that will scape a dancer’s competitive records on results.o2cm.net. The program will use the scraped data to calculate YCN points to determine a dancers eligibility to dance in a certain level. The YCN system is described here: <http://ballroom.mit.edu/index.php/ycn-proficiency-points/>. The program will also calculate the recall rate of each judge at a competition.

# Competitive Analysis

The YCN part of the project will be implemented very similar to the YCN calculator at this website: <http://ballroom.union.rpi.edu/index.php?page=pointCalculator>. It will be implemented in Python and be my own code, but the UI will most likely be very similar.

# Structural Plan

Objects:

* Competition
  + Events
  + Number
* Event
  + Level (Newcomer, bronze, silver, gold)
  + Style (Smooth, Standard, Latin, rhythm)
  + Dance (waltz, tango, …)
  + Number of Rounds
  + Place
* Dancer
  + Level
    - 4 Styles
      * Points per dance

\*Subbullets are attributes of the class

# Algorithmic Plan

I think the most difficult part of the project will be extracting data from each event as the website is somewhat inconsistent with displaying results. For noncompiled events, this can be done through string methods. However, for combined events, the algorithm would have to navigate into the website for that event and extract the dances.

Since number changes from comp to comp, it will be difficult to determine the number of the competitor. But this should be able to be accomplished by searching the results page for the competitor’s name and looking for a number on the same line.

To aid in statistical analysis, all the ‘x’’s in the results table would have to be turned into 1s for easier analysis. Then it is a matter of adding up all the columns.

# Timeline Plan

11/22 – successfully store data into proper attributes of objects

11/26 – Have YCN calculations completed and UI

After this date make improvements if time

# Version Control Plan

The project will be backed up to dropbox.

# Module List

Beautiful Soup

Mechanize