

# Course Project

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## Goals

The course project for the Data 8 Sports Analytics connector is meant to give students an opportunity to perform an independent analysis on real data. It serves to give direct, hands-on experience and put the knowledge of Data 8 to work. Students are encouraged to study a topic/sport that is of direct interest to them.

We want students to work the whole process of proposing an analytic question, conducting the analysis, and writing a detailed report. The report provides an opportunity for students to communicate their methods and results instead of raw code and plots.

Data for the project can either be obtained through your own means (most likely the internet) or through the course's reserves of datasets.

## Details

See the syllabus or Piazza for a firm schedule on when items or milestones are due.

- Please form groups of size 3-4. No larger. Smaller groups only under special circumstances. All members must contribute both code/analysis work as well as writing and editing to the final report.
- Proposals should be concise and around half a page. They need to answer the following: What is the research/analytic question? What data do you need to answer a question this question? What sorts of analyses do you anticipate doing to try to answer the analytic question?
- The week after the proposals are submitted, there will be a review and in-person meetings to discuss the proposals.
- Once the proposals are finalized, there are three major milestones that must be met. The first is data acquisition. Depending on the project, this may be easy or it may be hard so we do not want to go long without this being taken care of. The second milestone is a set of preliminary results. These results can be rough and in a notebook but they should demonstrate progress towards achieving the goal of the project. The final milestone consists a draft report with final results. We will hold short presentations in the last week and a final edited report will be due before the semester ends.
- The final product will be a 3-5 page report, accompanying code or notebooks, and a short presentation for the class. Limit the number of visualizations to around 3 in the report. Use the space to be verbose and explain your assumptions, methods, conclusions, etc.