

CE 88
Homework 3

This homework is a continuation of Homework 2. It uses table manipulation methods from Mini-lab 2 and visualization and programming tools from Mini-lab 3.

Problem 1 (2 points).

Yelp (www.yelp.com) collects and provides users with information about local businesses such as restaurants. It also provides an API¹ to access this information, including business locations, customer ratings and reviews written by users.

You are conducting a study for the Mayor's office of San Francisco with a goal to find out most popular dining areas in the city amongst tourists. Can you rely on the Yelp data to support your conclusions? What you should be aware of when using this data?

Problem 2 (3 points). Produce a map with markers identifying several major universities in the Bay Area.

Problem 3 (5 points). Produce a map with set of circular markers representing the proportion of the population that is 15-25 years old in each census tract in the Bay Area. You are welcome to explore the use of color and size of markers to visualize the data in the most compelling way. Briefly discuss the two maps: do the tracts with young population relate to the locations of university campuses?

Your submission must include a PDF file that contains your maps produced to address Problems 2 and 3. You can download your whole python notebook as a PDF, or simply make screenshots of the maps to include into a separate write-up.

¹ <https://www.yelp.com/developers/documentation/v2/business>