

CS106 W21 - Lab 08

Tables

Due: Tuesday, March 9 at 11:59 PM

Remember to include your name and student ID in each sketch you submit for all labs and assignments. Marks are deducted if these are not included.

- Put your name in line1 (using //)
- Put your student ID in line 2 (using //)
- Leave line 3 blank.

Question 1: “ZPlayers”

This exercise is very similar to the provided demo code “BaseballMasterDisplayedP5”.

1. Write a sketch to display the first and last name of all the players in “Masters.csv” who have a last name that begins with “Z”. Note that this table includes a header row. For this sketch, that's the only table you'll need. In this exercise, we care about two fields in the table: “nameLast” and “nameFirst”.
2. Display these player names (first and last) on the webpage using `createDiv()`.

Adrian Zabala
Zip Zabel
Chink Zachary
Chris Zachary
Tom Zachary
Elmer Zacher
Pat Zachry
George Zackert
Mike Zagurski
Fred Zahner
Geoff Zahn

Question 2: Baseball Salaries

Your task is to mimic what you see in the video:

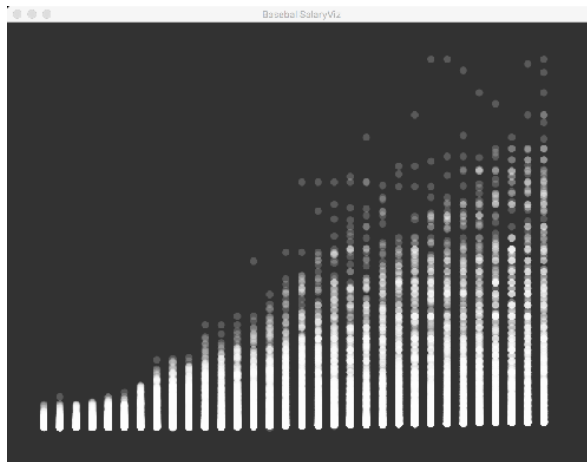
<https://vault.cs.uwaterloo.ca/s/o2ro2zKzk95pDzs>

There is no particular starter code. You may want to start with:

<https://openprocessing.org/sketch/1122411>

The highest single-year salary ever paid to a Major League Baseball player was \$33,000,000 (thirty-three million dollars), which Alex Rodriguez received in 2009 and 2010, and Clayton Kershaw received in 2016. How have player salaries been evolving over time? Is everybody getting paid more, or only top players? You will write a sketch to visualize player salaries from 1985 to the present day.

1. Load the Salaries.csv using `loadTable` in `preload()`. Note that this table includes a header row. For this sketch, that's the only table you'll need. In this exercise, we care about two fields in the table: the first field, named `yearID`, and the last field, named `salary`.
2. Write a `setup()` function that sets the window size to at least 500×500.
3. Loop over the rows of the table. For every row, draw a small semi-transparent circle whose x position is determined from the year and whose y position is determined from the given player's salary in that year. Use `map()` (or something like it) to ensure that the range of years 1985–2016 fills the width of the sketch (minus a margin on the left and right) and the range of salaries 0–33000000 fills the height of the sketch (minus a margin on the top and bottom). You'll end up with an image like this:



4. For this question, you're allowed to "know" going in that the highest salary in the table is 33000000. That is, you can put that into your sketch as a constant, you don't need to walk through the table to find the maximum salary (this will save a bit of coding).
5. You can complete this sketch in under 20 lines of code, not counting comments.

Submitting

Use the template file in Word “CS106 Lab Template” in LEARN to create your Lab 08 submission.

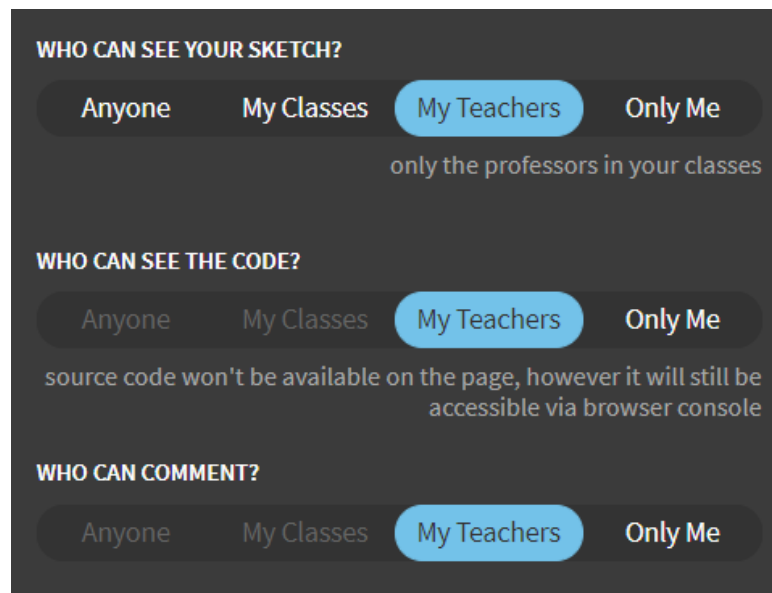
Please ensure that your URLs are hot links. The TAs need to be able to click on each link in your pdf and go directly to your sketch.

So for example, don't have a link like this: <https://openprocessing.org/sketch/1050954>

but rather have that link as a hot link as follows:

<https://openprocessing.org/sketch/1050954>

Ensure that each URL you submit has its settings so that the access is as follows:



The image shows a dark-themed settings panel for an OpenProcessing sketch. It is divided into three sections, each with a title and four radio button options: 'Anyone', 'My Classes', 'My Teachers', and 'Only Me'. The 'My Teachers' option is selected in all three sections. Below the 'My Teachers' option in the first section, there is a note: 'only the professors in your classes'. Below the 'My Teachers' option in the second section, there is a note: 'source code won't be available on the page, however it will still be accessible via browser console'. The third section has no additional notes.

WHO CAN SEE YOUR SKETCH?
Anyone My Classes **My Teachers** Only Me
only the professors in your classes

WHO CAN SEE THE CODE?
Anyone My Classes **My Teachers** Only Me
source code won't be available on the page, however it will still be accessible via browser console

WHO CAN COMMENT?
Anyone My Classes **My Teachers** Only Me

Submit that pdf file to the Lab 08 dropbox on LEARN.

An example of how to do submit a Lab is shown in the following video:

<https://vault.cs.uwaterloo.ca/s/9Xx7AGsewaea773>

It is your responsibility to submit to the correct dropbox with the correct files before the deadline. Otherwise you may receive a mark of 0.