D3 TUTORIAL

CS 448B | Fall 2026

MANEESH AGRAWALA

1

READING LECTURE/RESPONSE

- The idea from Polaris that stuck with me is ***how much information the intermediate steps can carry***. … ***I wondered how AI could augment this process***, where the tempting option is just to type a question and get back a finished chart, super quick without the intermediate steps. … What is a data diff and is that the right abstraction? What is the proof or evidence that AI should emit to make it as easy as possible for the user to audit its reasoning?

4

READING LECTURE/RESPONSE

- This is where Aisch's post (one of the optional readings) comes in. ***He found that only about 15% of readers clicked a prominent button on a couple of 2015 NYT graphics***, so … , ***I am not convinced most people will sit down and write a question for an AI either.*** … This leaves me wondering: will natural-language interfaces actually broaden who gets to do visual analysis, or will they just hand the same motivated 15% a faster tool?

- Heer and Shneiderman's discussion of dynamic queries was particularly relevant because it showed how ***interactive controls can support exploration*** rather than ***limiting users to one predetermined outcome***. … I think this introduces an important responsibility for visualization designers: how do ***we preserve the flexibility that makes interactive analysis so powerful*** while still ***ensuring users retain enough context to interpret the results accurately***?

5

ANNOUNCEMENTS

6

ASSIGNMENT 3: INTERACTION

Due 10/26 10:30am

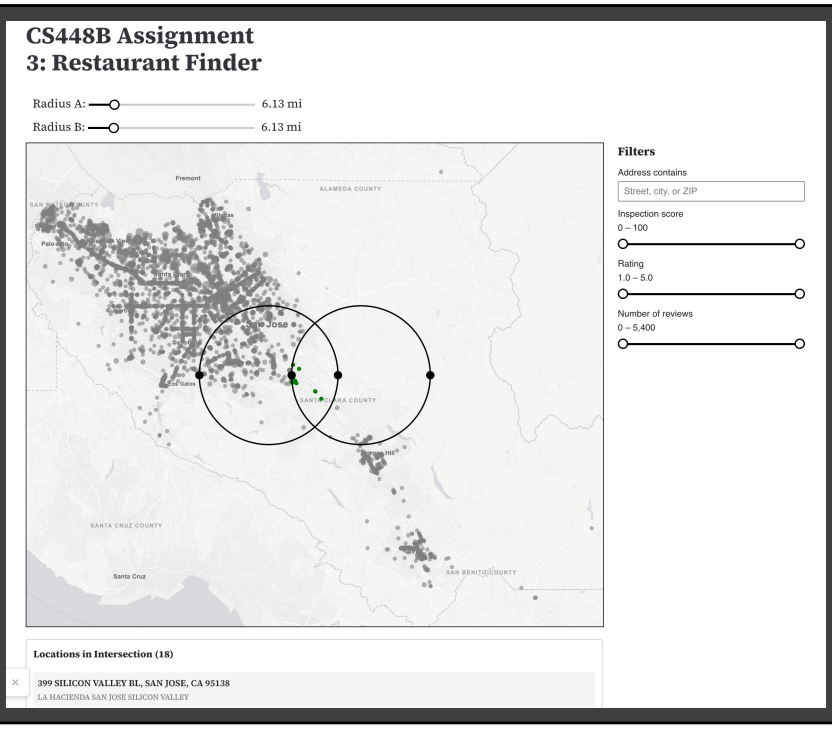
Create a small interactive dynamic query application similar to HomeFinder, but for restaurants near Stanford

1. Implement interface
2. Submit the application as a website and a short write-up on canvas

Can work alone or in pairs



7



8

TODAY

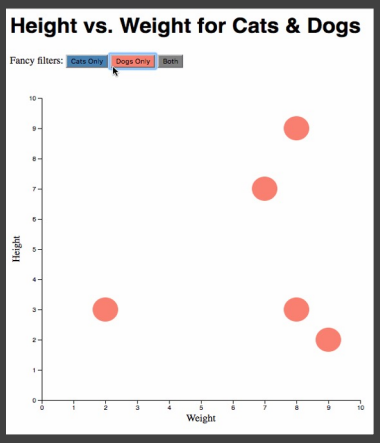
Learning Objectives

1. Let's make a scatterplot
2. D3 Excercises

9

LET'S MAKE A SCATTERPLOT 🐱🐶

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id,animal,weight,height,name
1,cat,10,3,phyllis
2,cat,3,3,oreo
3,cat,9,9,sam
4,cat,3,5,dog
5,cat,6,5,fred
6,cat,5,6,jane
7,cat,1,8,esmerelda
8,dog,9,2,garfield
9,dog,8,9,alpha
10,dog,7,7,omega
11,dog,2,3,zeta
12,dog,8,3,cupcake
```



https://observablehq.com/@stanfordvis/lets-make-a-scatterplot

10