

# CSCI585 HW 4 rubrics

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## Question1:

The screenshot shows the MongoDB Compass interface for a database named 'HW4DB' and a collection named 'HW3Data'. The collection size is 1.15KB, with 13 total documents and 36KB total index size. A filter is applied: `{ "popularity": { "$gte": 50 } }`. The query results show 1-8 of 8 documents. The first document is 'Trader Joe' with popularity 100. The second document is 'Ralphs' with popularity 100. The third document is 'MCBarberShop' with popularity 100. The 'loc' field is an array for each document.

Document	popularity	loc
Trader Joe	100	Array
Ralphs	100	Array
MCBarberShop	100	Array

+1 if name, popularity, and loc are correctly displayed in the screenshot and the query is correct.

## Question2)



+0.5 for correctly showing the chart type as shown in the above screenshot.(ANY chart type including non-spatial ones such as heatmap is fine)

+0.5 for correctly display of all the points on the Map/Chart.

Question3:

Example of what the query should look like:

Query *i*

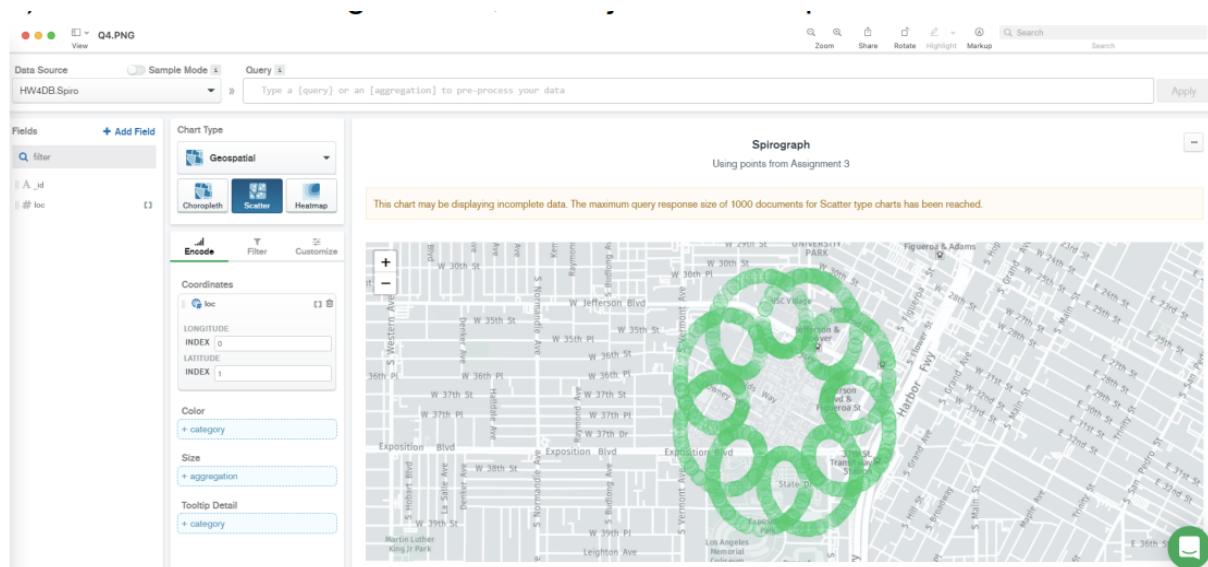
```
{ loc: { $geoWithin: { $box: [ [34.022, -118.288], [34.033, -118.283 ] ] } }}
```

0.5 for correct query, else 0

0.5 for correct display: Screenshot should show northern half of the 13 points (6/7 points)

Corner case: Some set of points may be hard to split exactly in half in which a different number of points is acceptable. 0 in case of choosing some other orientation (e.g. south) 0 in case a chart type is chosen that does not allow the visualization of the locations

## Question4:



+1 for bring in some locations, screen shot

no need for the sampled locations, just the Spirograph points showing up will do

5)

This is the example of a triangle provided in the homework, but the size of the triangle can be any size. Should be as equilateral as possible.



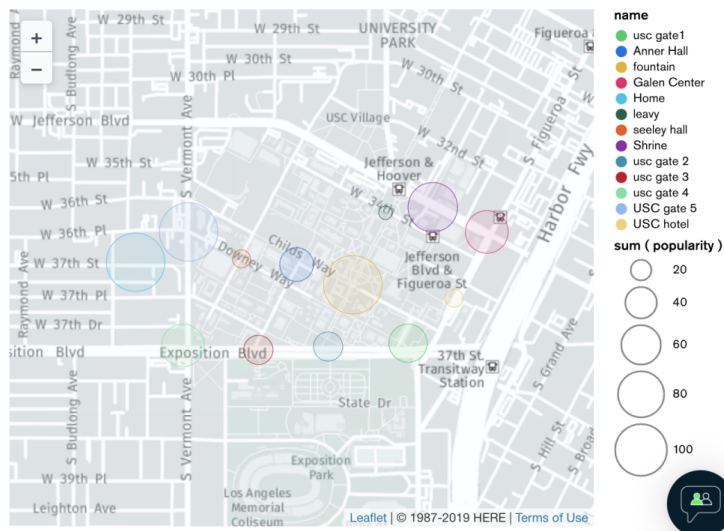
+0.25 for providing a triangle. Any form to represent the triangle should be fine, They can screenshot their code like this

Query 

```
{loc:{$geoWithin:{$polygon:[[-115,36],[-120,33],[-123,33]]}}}
```

students can screenshot the overlaid one on a map, they can specify the coordinates of three corner, or three line function, +0.25 for output at least a correct single location in the triangle by their query +0.5 output all correct locations in the triangle and screen shot them. PS: no need to show the triangle overlaid - just the contained (in the triangle) points will do.

## Question6:



+0.5 for using the correct style

+0.5 for using the 'Size' aggregation so that the location size is displayed in various sizes