mongoDB Query
Hackathon: 1

Daily stand up

Start at the end

- Name, Company Name

- Something about Mongo admin/coding you know that no one else here knows

- Something about Mongo you wish you knew

- Your next major Mongo project
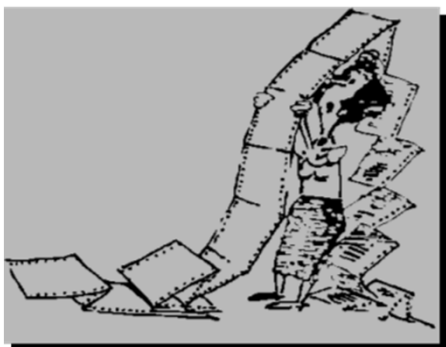
2

Something I know

I know ..

- The US city name most common across states.
- The US state name with the highest number of unique city names.
- Whether my airline plays fair with data.

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Rules of Engagement

Source material at,
Google query : mongodb developers notebook

This event: June/2017
Query primer: June/2016
More queries: September/2016
Tar Ball: also on the GitHub site

You need mongodb installed, working
Examples given in Python/PyMongo

Brief primer, then hack, time limit

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And first'ish:

Y/N I have more than 24 months
experience with SQL

Y/N I have more than   6 months
experience with MongoDB

Y/N I have written every query in
MongoDB I ever needed, and
was happy

Y/N Puppies scare me

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Query primer, find ..

db.zips.find(
{
"state" : "WI", "pop" :{ "$lt" : 8000 }
}
).sort("city" , 1).limit(20)

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```
db.zips.aggregate(
[
{ "$group" :
   {
   "_id"       : "$state",
    "totalPop"  : { "$sum" : "$pop" },
    "cityCount" : { "$sum" : 1 }
    }
},
{
"$sort" : {"_id" : 1 }
}
] )
```

Query primer, aggregate() ..
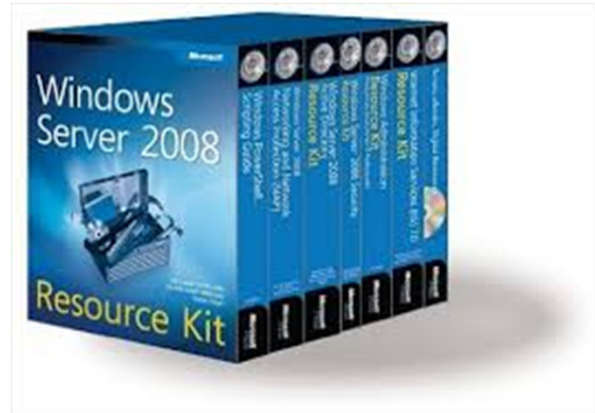

Loading the data, resource kit ..


```
# pwd
./02 Files

#ls
01 loadZips.sh
02 zips.json
10 loadFlights.sh
11 FlightDataUA.csv

12.fieldTypes
```

Resource kit, in total ..

02 Files
20 Sample queries (Zips and Flights)

80 Solutions

Which US city name is most common across states ?

E.g., there is a Paris, Texas. Is there also a Paris, California, and so many other states with a city named Paris, that this name is most common ?

Not only name the city which is most common across states, produce a single query that lists the city name, a count of its member states, and the state names to which that city name is found.

Question 1, in detail ..

Question 2, in detail ..

Name the state with the highest number of unique city names ?

E.g., as a US (state), District of Columbia has one city name not found in any other US state; its District of Columbia. Okay outlier example, but the point is made.

Name the US state with the highest number of city names not found in other states.

If the United Airlines flight from Denver to San Francisco historically took 2 hours, all of a sudden it seemed as though United Airlines was listing this as a 3 hour flight. (Times approximate, and I could be wrong.)

So the question is; is United Airlines actual on time performance higher than in year's past, or is United Airlines fudging the data ?

We give you 2006 and 2016 performance data. You decide, and be prepared to defend your methodology and answer-

Question 3, in detail ..

How fun was that ?

Resources:

- The parent to this preso,
  https://github.com/farrell0/MongoDB-Developers-Notebook
- University.MongoDB.com

- Call Dave Lutz, at home, ... On Sunday (early)
  (512)555/1212

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FOR GIANT IDEAS