**MongoDB -Aggregation Exercises**

Import the zips.json file into your MongoDB. Database name is "population" and collection name is "zipcodes". mongoimport --db population --collection zipcodes --file zips.json

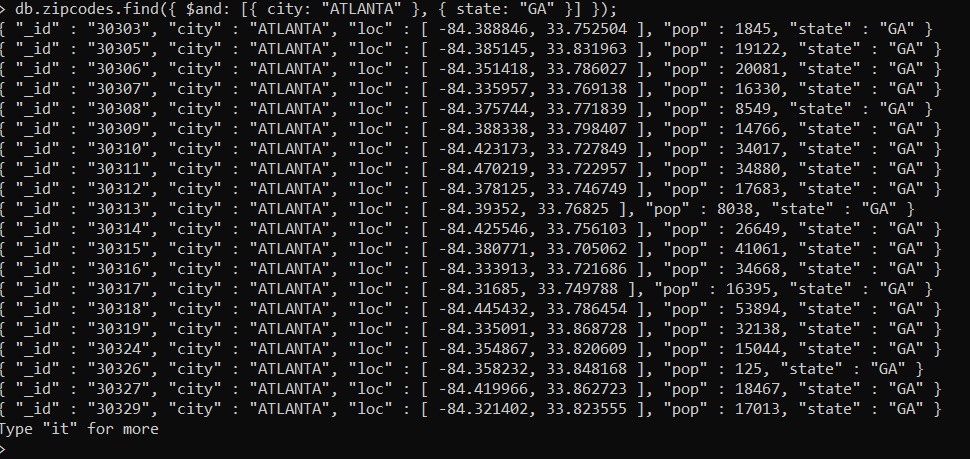
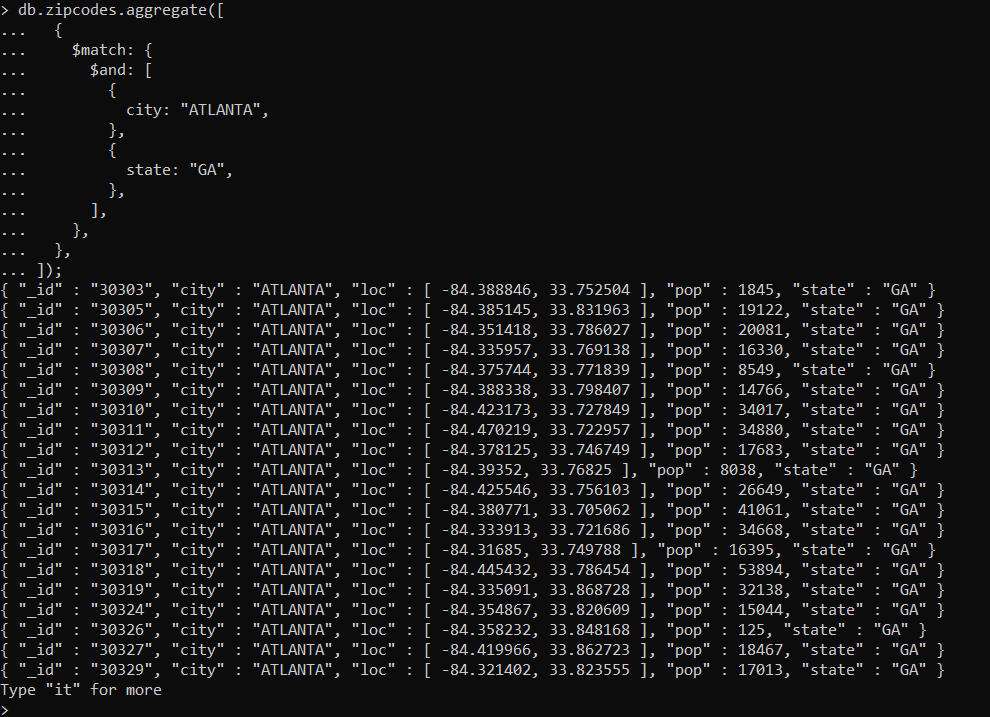
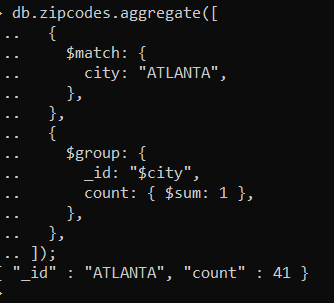
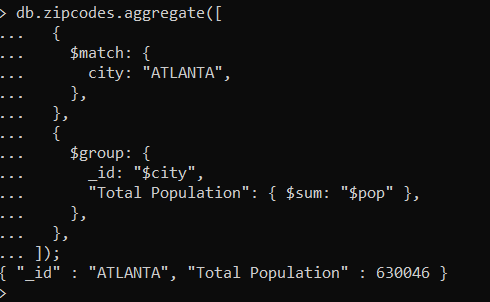
Graphical user interface, text, application, email

Description automatically generated

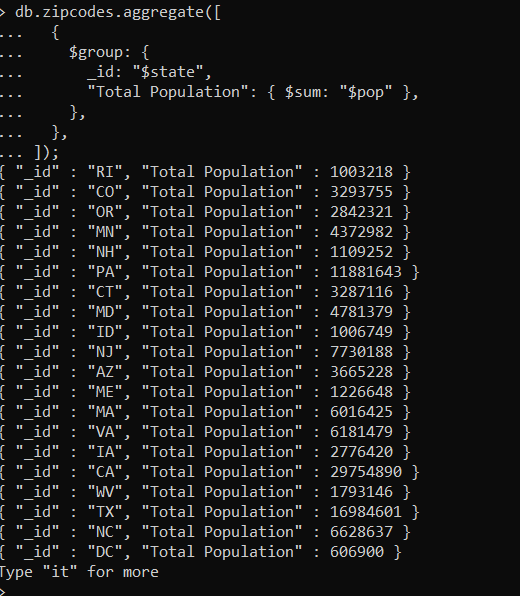
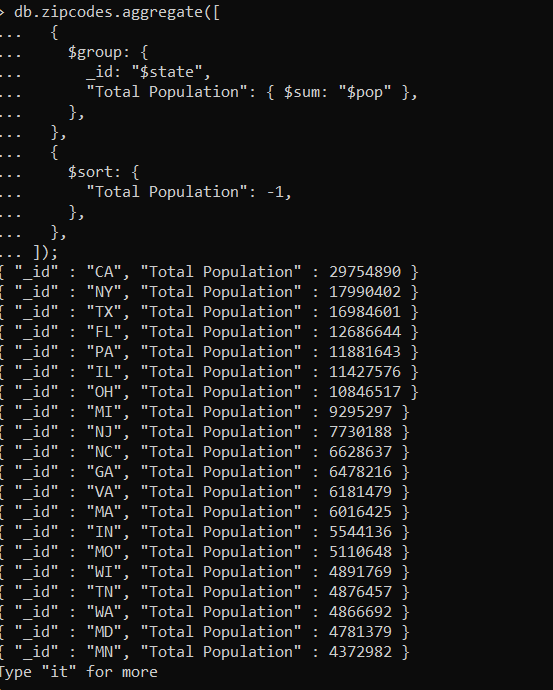
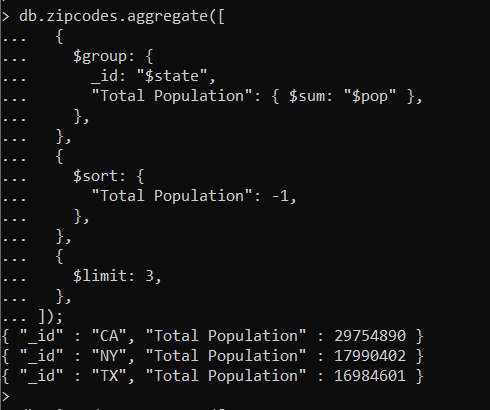
Text

Description automatically generated

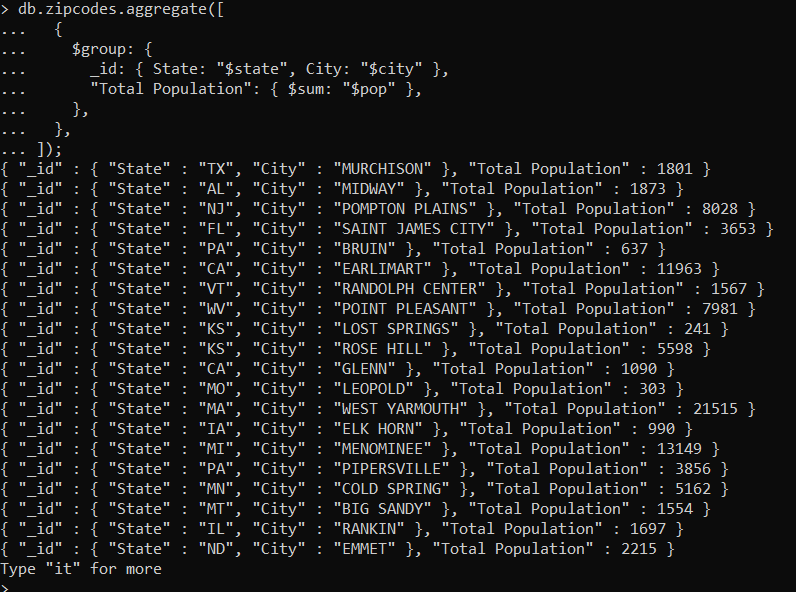
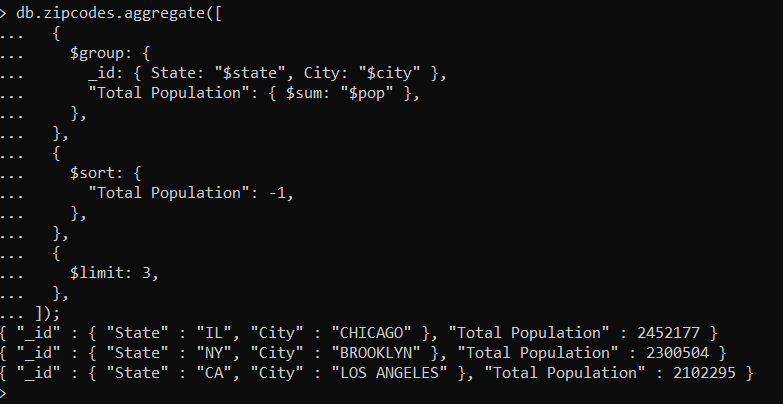
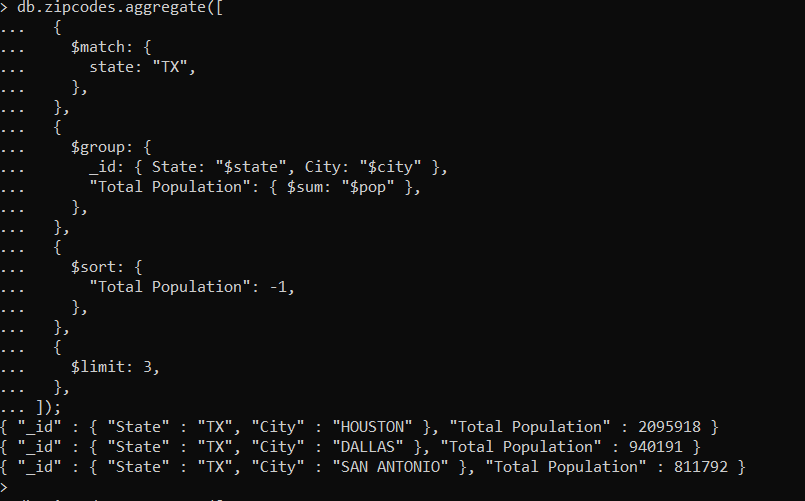
# Atlanta Population

1. use db.zipcodes.find() to filter results to only the results where city is ATLANTA and state is GA. 
2. use db.zipcodes.aggregate with $match to do the same as above. 
3. use $group to count the number of zip codes in Atlanta. 
4. use $group to find the total population in Atlanta. 

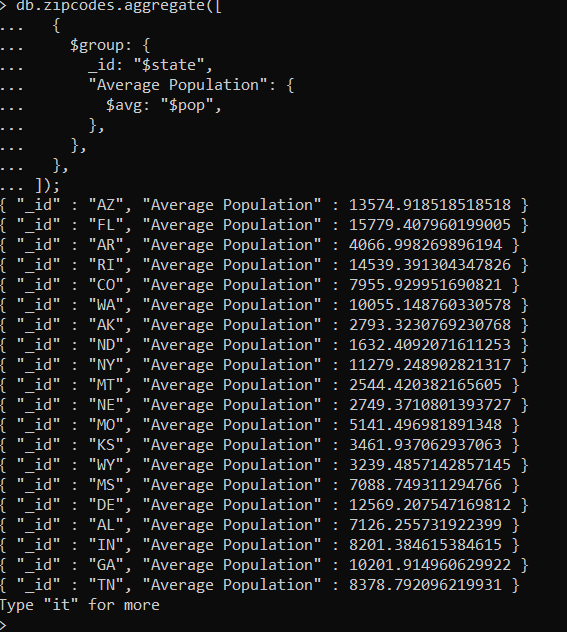
# Populations By State

1. use aggregate to calculate the total population for each state 
2. sort the results by population, highest first 
3. limit the results to just the first 3 results. What are the top 3 states in population? 

# Populations by City

1. use aggregate to calculate the total population for each city (you have to use city/state combination). You can use a combination for the \_id of the $group: { city: '$city', state: '$state' } 
2. sort the results by population, highest first 
3. limit the results to just the first 3 results. What are the top 3 cities in population? 
4. What are the top 3 cities in population in Texas? 

# Bonus

1. Write a query to get the average city population for each state. 
2. What are the top 3 states in terms of average city population? 