

## MongoDB -Aggregation Exercises

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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
```

### Atlanta Population

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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

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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

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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

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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?