

MongoDB -Aggregation Exercises

Atlanta Population

```
1-db.zipcodes.find({
  $and:[
    {city:"ATLANTA"},{state:"GA"}
  ]
})
```

```
2-db.zipcodes.aggregate([
  {$match:
    {$and:[
      {city:"ATLANTA"},{state:"GA"}
    ]
  }}
])
```

```
3-db.zipcodes.aggregate([ {$match: {city:"ATLANTA"}},
{$group:{_id:"$pop"}},
{$count:"totl zip codes"}
])
```

```
4- db.zipcodes.aggregate([{$group:{_id:"$city", count:{$sum:"$pop"}}},{$match:
{_id:"ATLANTA"}}])
```

Populations By State

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

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

```
3-db.zipcodes.aggregate([
{ $group: { _id: "$state", totalPop: { $sum: "$pop" } } },
{$sort: {totalPop:1}},
{$limit:3}
])
```

Top 3 states in population are- WY, AK, VT

Populations by City

```
1-db.zipcodes.aggregate([
{$group:{_id: {city: '$city', state: '$state' }, totalPop:{$sum:"$pop"}}}
])
```

```
2-db.zipcodes.aggregate([
```

```
{ $group: { _id: { city: '$city', state: '$state' }, totalPop: { $sum: "$pop" } } },  
{ $sort: { totalPop: -1 } }  
])
```

```
3- db.zipcodes.aggregate([  
{ $group: { _id: { city: '$city', state: '$state' }, totalPop: { $sum: "$pop" } } },  
{ $sort: { totalPop: -1 } },  
{ $limit: 3 }  
])
```

Top 3 cities in population are- CHICAGO, BROOKLYN, LOS ANGELES

```
4- 1. db.zipcodes.aggregate([ { $match: { state: "TX" } }, { $sort: { pop: -1 } }, { $limit: 3 } ])
```

Bonus

```
1- db.zipcodes.aggregate([ { $group: { _id: "$city", average: { $avg: "$pop" } } } ])
```

```
2- db.zipcodes.aggregate([ { $group: { _id: "$city", average: { $avg: "$pop" } } }, { $sort: { "average": -1 } }, { $limit: 3 } ])
```

—Aniket Kumar Pandey