POPULATION BY STATE:

1> db.zipcodes.find({"city":"ATLANTA", “state”:”GA”})

2>db.zipcodes.aggregate([{$match:{"city":"ATLANTA", “state”: “GA”}}]).pretty()

3>db.zipcodes.aggregate([{$match:{city:"ATLANTA"}},{$group:{\_id:"$city",numberofzipcodes:{$sum:1}}}]).pretty()

{ "\_id" : "ATLANTA", "numberofzipcodes" : 41 }

4>db.zipcodes.aggregate([{$match:{city:"ATLANTA"}},{$group:{\_id:"$city" ,totalpopulationofAtlanta:{ $sum:"$pop"}}}]).pretty()

{ "\_id" : "ATLANTA", "totalpopulationofAtlanta" : 630046 }

POPULATION BY STATE:

1>db.zipcodes.aggregate([{$group:{\_id:"$state" ,Population: { $sum:"$pop"}}}]).pretty()

{ "\_id" : "MA", "Population" : 6016425 }

{ "\_id" : "MD", "Population" : 4781379 }

{ "\_id" : "TN", "Population" : 4876457 }

{ "\_id" : "UT", "Population" : 1722850 }

{ "\_id" : "WV", "Population" : 1793146 }

{ "\_id" : "DE", "Population" : 666168 }

{ "\_id" : "WI", "Population" : 4891769 }

{ "\_id" : "TX", "Population" : 16984601 }

{ "\_id" : "ID", "Population" : 1006749 }

{ "\_id" : "DC", "Population" : 606900 }

{ "\_id" : "KY", "Population" : 3675484 }

{ "\_id" : "IL", "Population" : 11427576 }

{ "\_id" : "SC", "Population" : 3486703 }

{ "\_id" : "OH", "Population" : 10846517 }

{ "\_id" : "RI", "Population" : 1003218 }

{ "\_id" : "NC", "Population" : 6628637 }

{ "\_id" : "LA", "Population" : 4217595 }

{ "\_id" : "ND", "Population" : 638272 }

{ "\_id" : "PA", "Population" : 11881643 }

{ "\_id" : "AL", "Population" : 4040587 }

Type "it" for more

> it

{ "\_id" : "HI", "Population" : 1108229 }

{ "\_id" : "IA", "Population" : 2776420 }

{ "\_id" : "GA", "Population" : 6478216 }

{ "\_id" : "VA", "Population" : 6181479 }

{ "\_id" : "OR", "Population" : 2842321 }

{ "\_id" : "MS", "Population" : 2573216 }

{ "\_id" : "NM", "Population" : 1515069 }

{ "\_id" : "WA", "Population" : 4866692 }

{ "\_id" : "MT", "Population" : 798948 }

{ "\_id" : "CT", "Population" : 3287116 }

{ "\_id" : "KS", "Population" : 2475285 }

{ "\_id" : "NY", "Population" : 17990402 }

{ "\_id" : "NE", "Population" : 1578139 }

{ "\_id" : "NJ", "Population" : 7730188 }

{ "\_id" : "AK", "Population" : 544698 }

{ "\_id" : "MN", "Population" : 4372982 }

{ "\_id" : "VT", "Population" : 562758 }

{ "\_id" : "FL", "Population" : 12686644 }

{ "\_id" : "AR", "Population" : 2350725 }

{ "\_id" : "NH", "Population" : 1109252 }

2> db.zipcodes.aggregate([{$group:{\_id:"$state" ,Population: { $sum:"$pop"}}},{$sort:{Population: -1}}]).pretty()

{ "\_id" : "CA", "Population" : 29754890 }

{ "\_id" : "NY", "Population" : 17990402 }

{ "\_id" : "TX", "Population" : 16984601 }

{ "\_id" : "FL", "Population" : 12686644 }

{ "\_id" : "PA", "Population" : 11881643 }

{ "\_id" : "IL", "Population" : 11427576 }

{ "\_id" : "OH", "Population" : 10846517 }

{ "\_id" : "MI", "Population" : 9295297 }

{ "\_id" : "NJ", "Population" : 7730188 }

{ "\_id" : "NC", "Population" : 6628637 }

{ "\_id" : "GA", "Population" : 6478216 }

{ "\_id" : "VA", "Population" : 6181479 }

{ "\_id" : "MA", "Population" : 6016425 }

{ "\_id" : "IN", "Population" : 5544136 }

{ "\_id" : "MO", "Population" : 5110648 }

{ "\_id" : "WI", "Population" : 4891769 }

{ "\_id" : "TN", "Population" : 4876457 }

{ "\_id" : "WA", "Population" : 4866692 }

{ "\_id" : "MD", "Population" : 4781379 }

{ "\_id" : "MN", "Population" : 4372982 }

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

{ "\_id" : "CA", "Population" : 29754890 }

{ "\_id" : "NY", "Population" : 17990402 }

{ "\_id" : "TX", "Population" : 16984601 }

>

POPULATION BY CITY:

1>db.zipcodes.aggregate([{$group:{\_id:{city:"$city", state:"$state"} ,Population: { $sum:"$pop"}}}]).pretty()

2>db.zipcodes.aggregate([{$group:{\_id:{city:"$city",state:"$state"} ,Population: { $sum:"$pop"}}},{$sort:{Population: -1}}]).pretty()

3>db.zipcodes.aggregate([{$group:{\_id:{city:"$city",state:"$state"} ,Population: { $sum:"$pop"}}},{$sort:{Population: -1}},{$limit:3}]).pretty()

{

"\_id" : {

"city" : "CHICAGO",

"state" : "IL"

},

"Population" : 2452177

}

{

"\_id" : {

"city" : "BROOKLYN",

"state" : "NY"

},

"Population" : 2300504

}

{

"\_id" : {

"city" : "LOS ANGELES",

"state" : "CA"

},

"Population" : 2102295

}

4> db.zipcodes.aggregate([{$match: {state: "TX"}},{$group:{\_id:{state:"$state",city:"$city"} ,Population: { $sum:"$pop"}}},{$sort:{Population: -1}},{$limit:3}]).pretty()

> db.zipcodes.aggregate([{$match: {city: "ATLANTA"}},{$group:{\_id:{state:"$state",city:"$city"} ,Population: { $sum:"$pop"}}},{$sort:{Population: -1}},{$limit:3}]).pretty()

{

"\_id" : {

"state" : "GA",

"city" : "ATLANTA"

},

"Population" : 609591

}

{ "\_id" : { "state" : "TX", "city" : "ATLANTA" }, "Population" : 9024 }

{ "\_id" : { "state" : "LA", "city" : "ATLANTA" }, "Population" : 2466 }

BONUS:

1>db.zipcodes.aggregate([{$group:{\_id:{state: "$state",city:"$city"} ,pop: { $sum:"$pop"}}},{$group: {\_id:{state:"$\_id.state"},AveragePopulation:{$avg:"$pop"}}}]).pretty()

2> db.zipcodes.aggregate([{$group:{\_id:{state: "$state",city:"$city"} ,pop: { $sum:"$pop"}}},{$group: {\_id:{state:"$\_id.state"},AveragePopulation:{$avg:"$pop"}}},{$sort:{AveragePopulation:-1}},{$limit:3}]).pretty()

{ "\_id" : { "state" : "DC" }, "AveragePopulation" : 303450 }

{ "\_id" : { "state" : "CA" }, "AveragePopulation" : 27756.42723880597 }

{ "\_id" : { "state" : "FL" }, "AveragePopulation" : 27400.958963282937 }

>