

Assignment - 2

```
> show dbs
```

```
admin    0.000GB
```

```
config   0.000GB
```

```
local    0.000GB
```

```
population 0.002GB
```

```
> show collections
```

```
> use population
```

```
switched to db population
```

```
> show collections
```

```
Zip Codes
```

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

```
{ "_id" : "30303", "city" : "ATLANTA", "loc" : [ -84.388846, 33.752504 ], "pop" : 1845, "state" : "GA" }
```

```
{ "_id" : "30305", "city" : "ATLANTA", "loc" : [ -84.385145, 33.831963 ], "pop" : 19122, "state" : "GA" }
```

```
{ "_id" : "30306", "city" : "ATLANTA", "loc" : [ -84.351418, 33.786027 ], "pop" : 20081, "state" : "GA" }
```

```
{ "_id" : "30307", "city" : "ATLANTA", "loc" : [ -84.335957, 33.769138 ], "pop" : 16330, "state" : "GA" }
```

```
{ "_id" : "30308", "city" : "ATLANTA", "loc" : [ -84.375744, 33.771839 ], "pop" : 8549, "state" : "GA" }
```

```
{ "_id" : "30309", "city" : "ATLANTA", "loc" : [ -84.388338, 33.798407 ], "pop" : 14766, "state" : "GA" }
```

```
{ "_id" : "30310", "city" : "ATLANTA", "loc" : [ -84.423173, 33.727849 ], "pop" : 34017, "state" : "GA" }
```

```
{ "_id" : "30311", "city" : "ATLANTA", "loc" : [ -84.470219, 33.722957 ], "pop" : 34880, "state" : "GA" }
```

```
{ "_id" : "30312", "city" : "ATLANTA", "loc" : [ -84.378125, 33.746749 ], "pop" : 17683, "state" : "GA" }
```

```
{ "_id" : "30313", "city" : "ATLANTA", "loc" : [ -84.39352, 33.76825 ], "pop" : 8038, "state" : "GA" }
```

```
{ "_id" : "30314", "city" : "ATLANTA", "loc" : [ -84.425546, 33.756103 ], "pop" : 26649, "state" : "GA" }
```

```
{ "_id" : "30315", "city" : "ATLANTA", "loc" : [ -84.380771, 33.705062 ], "pop" : 41061, "state" : "GA" }
```

```
{ "_id" : "30316", "city" : "ATLANTA", "loc" : [ -84.333913, 33.721686 ], "pop" : 34668, "state" : "GA" }
```

```
{ "_id" : "30317", "city" : "ATLANTA", "loc" : [ -84.31685, 33.749788 ], "pop" : 16395, "state" : "GA" }
```

```
{ "_id" : "30318", "city" : "ATLANTA", "loc" : [ -84.445432, 33.786454 ], "pop" : 53894, "state" : "GA" }
```

```
{ "_id": "30319", "city": "ATLANTA", "loc": [ -84.335091, 33.868728 ], "pop": 32138, "state": "GA" }
{ "_id": "30324", "city": "ATLANTA", "loc": [ -84.354867, 33.820609 ], "pop": 15044, "state": "GA" }
{ "_id": "30326", "city": "ATLANTA", "loc": [ -84.358232, 33.848168 ], "pop": 125, "state": "GA" }
{ "_id": "30327", "city": "ATLANTA", "loc": [ -84.419966, 33.862723 ], "pop": 18467, "state": "GA" }
{ "_id": "30329", "city": "ATLANTA", "loc": [ -84.321402, 33.823555 ], "pop": 17013, "state": "GA" }
```

Type "it" for more

2:

```
> db.zipcodes.aggregate({$match:{$and:[{city:"ATLANTA"},{state:"GA"}]}})
{ "_id": "30303", "city": "ATLANTA", "loc": [ -84.388846, 33.752504 ], "pop": 1845, "state": "GA" }
{ "_id": "30305", "city": "ATLANTA", "loc": [ -84.385145, 33.831963 ], "pop": 19122, "state": "GA" }
{ "_id": "30306", "city": "ATLANTA", "loc": [ -84.351418, 33.786027 ], "pop": 20081, "state": "GA" }
{ "_id": "30307", "city": "ATLANTA", "loc": [ -84.335957, 33.769138 ], "pop": 16330, "state": "GA" }
{ "_id": "30308", "city": "ATLANTA", "loc": [ -84.375744, 33.771839 ], "pop": 8549, "state": "GA" }
{ "_id": "30309", "city": "ATLANTA", "loc": [ -84.388338, 33.798407 ], "pop": 14766, "state": "GA" }
{ "_id": "30310", "city": "ATLANTA", "loc": [ -84.423173, 33.727849 ], "pop": 34017, "state": "GA" }
{ "_id": "30311", "city": "ATLANTA", "loc": [ -84.470219, 33.722957 ], "pop": 34880, "state": "GA" }
{ "_id": "30312", "city": "ATLANTA", "loc": [ -84.378125, 33.746749 ], "pop": 17683, "state": "GA" }
{ "_id": "30313", "city": "ATLANTA", "loc": [ -84.39352, 33.76825 ], "pop": 8038, "state": "GA" }
{ "_id": "30314", "city": "ATLANTA", "loc": [ -84.425546, 33.756103 ], "pop": 26649, "state": "GA" }
{ "_id": "30315", "city": "ATLANTA", "loc": [ -84.380771, 33.705062 ], "pop": 41061, "state": "GA" }
{ "_id": "30316", "city": "ATLANTA", "loc": [ -84.333913, 33.721686 ], "pop": 34668, "state": "GA" }
{ "_id": "30317", "city": "ATLANTA", "loc": [ -84.31685, 33.749788 ], "pop": 16395, "state": "GA" }
{ "_id": "30318", "city": "ATLANTA", "loc": [ -84.445432, 33.786454 ], "pop": 53894, "state": "GA" }
{ "_id": "30319", "city": "ATLANTA", "loc": [ -84.335091, 33.868728 ], "pop": 32138, "state": "GA" }
```

```

{ "_id" : "30324", "city" : "ATLANTA", "loc" : [ -84.354867, 33.820609 ], "pop" : 15044, "state" :
"GA" }
{ "_id" : "30326", "city" : "ATLANTA", "loc" : [ -84.358232, 33.848168 ], "pop" : 125, "state" : "GA"
}
{ "_id" : "30327", "city" : "ATLANTA", "loc" : [ -84.419966, 33.862723 ], "pop" : 18467, "state" :
"GA" }
{ "_id" : "30329", "city" : "ATLANTA", "loc" : [ -84.321402, 33.823555 ], "pop" : 17013, "state" :
"GA" }
Type "it" for more
3:
>
db.zipcodes.aggregate([{$match:{$and:{{city:"ATLANTA"},{state:"GA"}}}},{$group:{_id:"$loc"}},{$c
ount:"loc"}})
{ "loc" : 31 }
4:
>
db.zipcodes.aggregate([{$match:{city:"ATLANTA"}},{$group:{_id:{city:"$city"},pop:{$sum:"$pop"}}
}})
{ "_id" : { "city" : "ATLANTA" }, "pop" : 630046 }

```

Part 2

```

1:
> db.zipcodes.aggregate([{$group:{_id:{state:"$state"},pop:{$sum:"$pop"}}}])
{ "_id" : { "state" : "VT" }, "pop" : 562758 }
{ "_id" : { "state" : "NJ" }, "pop" : 7730188 }
{ "_id" : { "state" : "AL" }, "pop" : 4040587 }
{ "_id" : { "state" : "IN" }, "pop" : 5544136 }
{ "_id" : { "state" : "MN" }, "pop" : 4372982 }
{ "_id" : { "state" : "IL" }, "pop" : 11427576 }
{ "_id" : { "state" : "NH" }, "pop" : 1109252 }
{ "_id" : { "state" : "PA" }, "pop" : 11881643 }
{ "_id" : { "state" : "KS" }, "pop" : 2475285 }
{ "_id" : { "state" : "AR" }, "pop" : 2350725 }
{ "_id" : { "state" : "RI" }, "pop" : 1003218 }
{ "_id" : { "state" : "LA" }, "pop" : 4217595 }
{ "_id" : { "state" : "NC" }, "pop" : 6628637 }
{ "_id" : { "state" : "SC" }, "pop" : 3486703 }
{ "_id" : { "state" : "OH" }, "pop" : 10846517 }
{ "_id" : { "state" : "FL" }, "pop" : 12686644 }

```

```
{ "_id" : { "state" : "NM" }, "pop" : 1515069 }
{ "_id" : { "state" : "WV" }, "pop" : 1793146 }
{ "_id" : { "state" : "SD" }, "pop" : 695397 }
{ "_id" : { "state" : "VA" }, "pop" : 6181479 }
```

Type "it" for more

> it

```
{ "_id" : { "state" : "IA" }, "pop" : 2776420 }
{ "_id" : { "state" : "CA" }, "pop" : 29754890 }
{ "_id" : { "state" : "HI" }, "pop" : 1108229 }
{ "_id" : { "state" : "OR" }, "pop" : 2842321 }
{ "_id" : { "state" : "AK" }, "pop" : 544698 }
{ "_id" : { "state" : "TN" }, "pop" : 4876457 }
{ "_id" : { "state" : "MS" }, "pop" : 2573216 }
{ "_id" : { "state" : "TX" }, "pop" : 16984601 }
{ "_id" : { "state" : "DE" }, "pop" : 666168 }
{ "_id" : { "state" : "ID" }, "pop" : 1006749 }
{ "_id" : { "state" : "MA" }, "pop" : 6016425 }
{ "_id" : { "state" : "UT" }, "pop" : 1722850 }
{ "_id" : { "state" : "DC" }, "pop" : 606900 }
{ "_id" : { "state" : "KY" }, "pop" : 3675484 }
{ "_id" : { "state" : "AZ" }, "pop" : 3665228 }
{ "_id" : { "state" : "NV" }, "pop" : 1201833 }
{ "_id" : { "state" : "OK" }, "pop" : 3145585 }
{ "_id" : { "state" : "MI" }, "pop" : 9295297 }
{ "_id" : { "state" : "ND" }, "pop" : 638272 }
{ "_id" : { "state" : "NE" }, "pop" : 1578139 }
```

Type "it" for more

> it

```
{ "_id" : { "state" : "CO" }, "pop" : 3293755 }
{ "_id" : { "state" : "MO" }, "pop" : 5110648 }
{ "_id" : { "state" : "WY" }, "pop" : 453528 }
{ "_id" : { "state" : "WA" }, "pop" : 4866692 }
{ "_id" : { "state" : "NY" }, "pop" : 17990402 }
{ "_id" : { "state" : "MT" }, "pop" : 798948 }
{ "_id" : { "state" : "WI" }, "pop" : 4891769 }
{ "_id" : { "state" : "CT" }, "pop" : 3287116 }
{ "_id" : { "state" : "MD" }, "pop" : 4781379 }
{ "_id" : { "state" : "GA" }, "pop" : 6478216 }
{ "_id" : { "state" : "ME" }, "pop" : 1226648 }
```

2:

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

```
{ "_id" : { "state" : "CA" }, "pop" : 29754890 }
{ "_id" : { "state" : "NY" }, "pop" : 17990402 }
```

```
{ "_id" : { "state" : "TX" }, "pop" : 16984601 }
{ "_id" : { "state" : "FL" }, "pop" : 12686644 }
{ "_id" : { "state" : "PA" }, "pop" : 11881643 }
{ "_id" : { "state" : "IL" }, "pop" : 11427576 }
{ "_id" : { "state" : "OH" }, "pop" : 10846517 }
{ "_id" : { "state" : "MI" }, "pop" : 9295297 }
{ "_id" : { "state" : "NJ" }, "pop" : 7730188 }
{ "_id" : { "state" : "NC" }, "pop" : 6628637 }
{ "_id" : { "state" : "GA" }, "pop" : 6478216 }
{ "_id" : { "state" : "VA" }, "pop" : 6181479 }
{ "_id" : { "state" : "MA" }, "pop" : 6016425 }
{ "_id" : { "state" : "IN" }, "pop" : 5544136 }
{ "_id" : { "state" : "MO" }, "pop" : 5110648 }
{ "_id" : { "state" : "WI" }, "pop" : 4891769 }
{ "_id" : { "state" : "TN" }, "pop" : 4876457 }
{ "_id" : { "state" : "WA" }, "pop" : 4866692 }
{ "_id" : { "state" : "MD" }, "pop" : 4781379 }
{ "_id" : { "state" : "MN" }, "pop" : 4372982 }
```

Type "it" for more

> it

```
{ "_id" : { "state" : "LA" }, "pop" : 4217595 }
{ "_id" : { "state" : "AL" }, "pop" : 4040587 }
{ "_id" : { "state" : "KY" }, "pop" : 3675484 }
{ "_id" : { "state" : "AZ" }, "pop" : 3665228 }
{ "_id" : { "state" : "SC" }, "pop" : 3486703 }
{ "_id" : { "state" : "CO" }, "pop" : 3293755 }
{ "_id" : { "state" : "CT" }, "pop" : 3287116 }
{ "_id" : { "state" : "OK" }, "pop" : 3145585 }
{ "_id" : { "state" : "OR" }, "pop" : 2842321 }
{ "_id" : { "state" : "IA" }, "pop" : 2776420 }
{ "_id" : { "state" : "MS" }, "pop" : 2573216 }
{ "_id" : { "state" : "KS" }, "pop" : 2475285 }
{ "_id" : { "state" : "AR" }, "pop" : 2350725 }
{ "_id" : { "state" : "WV" }, "pop" : 1793146 }
{ "_id" : { "state" : "UT" }, "pop" : 1722850 }
{ "_id" : { "state" : "NE" }, "pop" : 1578139 }
{ "_id" : { "state" : "NM" }, "pop" : 1515069 }
{ "_id" : { "state" : "ME" }, "pop" : 1226648 }
{ "_id" : { "state" : "NV" }, "pop" : 1201833 }
{ "_id" : { "state" : "NH" }, "pop" : 1109252 }
```

Type "it" for more

> it

```
{ "_id" : { "state" : "HI" }, "pop" : 1108229 }
{ "_id" : { "state" : "ID" }, "pop" : 1006749 }
```

```
{ "_id" : { "state" : "RI" }, "pop" : 1003218 }
{ "_id" : { "state" : "MT" }, "pop" : 798948 }
{ "_id" : { "state" : "SD" }, "pop" : 695397 }
{ "_id" : { "state" : "DE" }, "pop" : 666168 }
{ "_id" : { "state" : "ND" }, "pop" : 638272 }
{ "_id" : { "state" : "DC" }, "pop" : 606900 }
{ "_id" : { "state" : "VT" }, "pop" : 562758 }
{ "_id" : { "state" : "AK" }, "pop" : 544698 }
{ "_id" : { "state" : "WY" }, "pop" : 453528 }
```

3:

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

```
{ "_id" : { "state" : "CA" }, "pop" : 29754890 }
{ "_id" : { "state" : "NY" }, "pop" : 17990402 }
{ "_id" : { "state" : "TX" }, "pop" : 16984601 }
```

Part 3

1:

```
{ "_id" : { "city" : "SCOTTSBURG", "state" : "NY" }, "pop" : 612 }
{ "_id" : { "city" : "CROPPER", "state" : "KY" }, "pop" : 2669 }
{ "_id" : { "city" : "WALNUT", "state" : "KS" }, "pop" : 383 }
{ "_id" : { "city" : "FLEMING", "state" : "CO" }, "pop" : 853 }
{ "_id" : { "city" : "FLUSHING", "state" : "OH" }, "pop" : 2719 }
{ "_id" : { "city" : "SHELTER ISLAND H", "state" : "NY" }, "pop" : 1119 }
{ "_id" : { "city" : "EDGAR", "state" : "NE" }, "pop" : 795 }
{ "_id" : { "city" : "NORTH WARREN", "state" : "PA" }, "pop" : 22507 }
{ "_id" : { "city" : "SPENCERVILLE", "state" : "OH" }, "pop" : 5745 }
{ "_id" : { "city" : "HALLSBORO", "state" : "NC" }, "pop" : 2551 }
{ "_id" : { "city" : "AGUA DULCE", "state" : "CA" }, "pop" : 31741 }
{ "_id" : { "city" : "HILMAR", "state" : "CA" }, "pop" : 6676 }
{ "_id" : { "city" : "LILLIWAUP", "state" : "WA" }, "pop" : 635 }
{ "_id" : { "city" : "TRIPOLI", "state" : "WI" }, "pop" : 374 }
{ "_id" : { "city" : "GOLDSBORO", "state" : "MD" }, "pop" : 1179 }
{ "_id" : { "city" : "RIO OSO", "state" : "CA" }, "pop" : 1102 }
{ "_id" : { "city" : "HOPATCONG", "state" : "NJ" }, "pop" : 11920 }
{ "_id" : { "city" : "ALICEVILLE", "state" : "AL" }, "pop" : 5196 }
{ "_id" : { "city" : "PLANTERSVILLE", "state" : "MS" }, "pop" : 2913 }
{ "_id" : { "city" : "HOPEWELL", "state" : "NJ" }, "pop" : 3858 }
```

Type "it" for more

> it

```
{ "_id" : { "city" : "MIDDLEBURG", "state" : "PA" }, "pop" : 6546 }
{ "_id" : { "city" : "KINSMAN", "state" : "OH" }, "pop" : 3397 }
{ "_id" : { "city" : "CASSOPOLIS", "state" : "MI" }, "pop" : 6622 }
{ "_id" : { "city" : "HANCOCK", "state" : "IA" }, "pop" : 427 }
{ "_id" : { "city" : "AMA", "state" : "LA" }, "pop" : 1300 }
```

```
{ "_id" : { "city" : "SMETHPORT", "state" : "PA" }, "pop" : 4375 }
{ "_id" : { "city" : "TIMPSON", "state" : "TX" }, "pop" : 3060 }
{ "_id" : { "city" : "DEVILS TOWER", "state" : "WY" }, "pop" : 119 }
{ "_id" : { "city" : "BANDON", "state" : "OR" }, "pop" : 4852 }
{ "_id" : { "city" : "VASHON", "state" : "WA" }, "pop" : 9309 }
{ "_id" : { "city" : "LOCKWOOD", "state" : "NY" }, "pop" : 951 }
{ "_id" : { "city" : "BAKER", "state" : "ND" }, "pop" : 74 }
{ "_id" : { "city" : "WAYNESBURG", "state" : "OH" }, "pop" : 3149 }
{ "_id" : { "city" : "HALLOCK", "state" : "MN" }, "pop" : 1729 }
{ "_id" : { "city" : "MANASQUAN", "state" : "NJ" }, "pop" : 10341 }
{ "_id" : { "city" : "MOUNT KISCO", "state" : "NY" }, "pop" : 14361 }
{ "_id" : { "city" : "ADAIRSVILLE", "state" : "GA" }, "pop" : 7273 }
{ "_id" : { "city" : "JENKS", "state" : "OK" }, "pop" : 8086 }
{ "_id" : { "city" : "NORTON HILL", "state" : "NY" }, "pop" : 163 }
{ "_id" : { "city" : "LEAKEY", "state" : "TX" }, "pop" : 1142 }
```

Type "it" for more

> it

```
{ "_id" : { "city" : "ALLAKAKET", "state" : "AK" }, "pop" : 170 }
{ "_id" : { "city" : "MONMOUTH", "state" : "OR" }, "pop" : 8071 }
{ "_id" : { "city" : "FORKS TOWNSHIP", "state" : "PA" }, "pop" : 65784 }
{ "_id" : { "city" : "WATERLOO", "state" : "WI" }, "pop" : 4106 }
{ "_id" : { "city" : "WACO", "state" : "GA" }, "pop" : 2297 }
{ "_id" : { "city" : "SHELDON", "state" : "IA" }, "pop" : 5585 }
{ "_id" : { "city" : "ISLE LA MOTTE", "state" : "VT" }, "pop" : 408 }
{ "_id" : { "city" : "OAKLAND CITY", "state" : "IN" }, "pop" : 4244 }
{ "_id" : { "city" : "SCUDDY", "state" : "KY" }, "pop" : 296 }
{ "_id" : { "city" : "COMBS", "state" : "KY" }, "pop" : 1001 }
{ "_id" : { "city" : "INGLESIDE", "state" : "TX" }, "pop" : 5871 }
{ "_id" : { "city" : "FRANKLIN", "state" : "NE" }, "pop" : 1305 }
{ "_id" : { "city" : "SWEENY", "state" : "TX" }, "pop" : 5077 }
{ "_id" : { "city" : "BROOKFIELD", "state" : "MA" }, "pop" : 2968 }
{ "_id" : { "city" : "FENWICK", "state" : "WV" }, "pop" : 393 }
{ "_id" : { "city" : "ROCKWELL", "state" : "IA" }, "pop" : 2009 }
{ "_id" : { "city" : "MAPLETON", "state" : "MN" }, "pop" : 2299 }
{ "_id" : { "city" : "CLINTON", "state" : "LA" }, "pop" : 3028 }
{ "_id" : { "city" : "EDMOND", "state" : "WV" }, "pop" : 69 }
{ "_id" : { "city" : "KETTLE ISLAND", "state" : "KY" }, "pop" : 710 }
```

Type "it" for more

> it

```
{ "_id" : { "city" : "HEBRON", "state" : "IL" }, "pop" : 1606 }
{ "_id" : { "city" : "RUFÉ", "state" : "OK" }, "pop" : 244 }
{ "_id" : { "city" : "DEARY", "state" : "ID" }, "pop" : 1483 }
{ "_id" : { "city" : "FREISTATT", "state" : "MO" }, "pop" : 515 }
{ "_id" : { "city" : "FALLS CHURCH", "state" : "VA" }, "pop" : 14864 }
```

```
{ "_id" : { "city" : "HINKLE", "state" : "KY" }, "pop" : 269 }
{ "_id" : { "city" : "BELFRY", "state" : "MT" }, "pop" : 64 }
{ "_id" : { "city" : "AUGUSTA", "state" : "MO" }, "pop" : 302 }
{ "_id" : { "city" : "WESTERVILLE", "state" : "NE" }, "pop" : 172 }
{ "_id" : { "city" : "PEAR VALLEY", "state" : "TX" }, "pop" : 110 }
{ "_id" : { "city" : "BROOKS", "state" : "GA" }, "pop" : 1662 }
{ "_id" : { "city" : "MULINO", "state" : "OR" }, "pop" : 2935 }
{ "_id" : { "city" : "GOLOVIN", "state" : "AK" }, "pop" : 3706 }
{ "_id" : { "city" : "WELLINGTON", "state" : "IL" }, "pop" : 782 }
{ "_id" : { "city" : "WOODRUM", "state" : "VA" }, "pop" : 34323 }
{ "_id" : { "city" : "EDWARDS", "state" : "NY" }, "pop" : 1069 }
{ "_id" : { "city" : "ELIZABETHTON", "state" : "TN" }, "pop" : 32046 }
{ "_id" : { "city" : "LAKEPORT", "state" : "CA" }, "pop" : 10351 }
{ "_id" : { "city" : "WASHINGTON", "state" : "OK" }, "pop" : 1670 }
{ "_id" : { "city" : "SAINT INIGOES", "state" : "MD" }, "pop" : 583 }
```

Type "it" for more

> it

```
{ "_id" : { "city" : "HAWKS", "state" : "MI" }, "pop" : 876 }
{ "_id" : { "city" : "WA KEENEY", "state" : "KS" }, "pop" : 2711 }
{ "_id" : { "city" : "BENNETT", "state" : "CO" }, "pop" : 3885 }
{ "_id" : { "city" : "LONG ISLAND", "state" : "VA" }, "pop" : 1308 }
{ "_id" : { "city" : "BALDWIN", "state" : "NY" }, "pop" : 30959 }
{ "_id" : { "city" : "OCEAN REEF", "state" : "FL" }, "pop" : 12076 }
{ "_id" : { "city" : "SHELL LAKE", "state" : "WI" }, "pop" : 3450 }
{ "_id" : { "city" : "FRUITHURST", "state" : "AL" }, "pop" : 1473 }
{ "_id" : { "city" : "SOUTH CHARLESTON", "state" : "WV" }, "pop" : 18377 }
{ "_id" : { "city" : "CLEMONS", "state" : "NY" }, "pop" : 169 }
{ "_id" : { "city" : "QUILCENE", "state" : "WA" }, "pop" : 1592 }
{ "_id" : { "city" : "CAPITOL ISLAND", "state" : "ME" }, "pop" : 2800 }
{ "_id" : { "city" : "ZUMBROTA", "state" : "MN" }, "pop" : 3535 }
{ "_id" : { "city" : "WOODWARD", "state" : "OK" }, "pop" : 14279 }
{ "_id" : { "city" : "DELRAY BEACH", "state" : "FL" }, "pop" : 81673 }
{ "_id" : { "city" : "HAYESVILLE", "state" : "NC" }, "pop" : 5965 }
{ "_id" : { "city" : "OWLS HEAD", "state" : "NY" }, "pop" : 329 }
{ "_id" : { "city" : "MARVIN", "state" : "SD" }, "pop" : 146 }
{ "_id" : { "city" : "NOYES", "state" : "MN" }, "pop" : 67 }
{ "_id" : { "city" : "RAMONA", "state" : "SD" }, "pop" : 641 }
```

Type "it" for more

> it

```
{ "_id" : { "city" : "RIVES", "state" : "TN" }, "pop" : 2424 }
{ "_id" : { "city" : "CALIO", "state" : "ND" }, "pop" : 572 }
{ "_id" : { "city" : "GAULEY BRIDGE", "state" : "WV" }, "pop" : 826 }
{ "_id" : { "city" : "CHUATHBALUK", "state" : "AK" }, "pop" : 352 }
{ "_id" : { "city" : "PROVENCAL", "state" : "LA" }, "pop" : 2700 }
```



```
{ "_id" : { "city" : "GIBBSBORO", "state" : "NJ" }, "pop" : 2383 }
{ "_id" : { "city" : "GUILFORD", "state" : "IN" }, "pop" : 2595 }
{ "_id" : { "city" : "HONAKER", "state" : "KY" }, "pop" : 772 }
{ "_id" : { "city" : "OWATONNA", "state" : "MN" }, "pop" : 23860 }
{ "_id" : { "city" : "BLOCKTON", "state" : "IA" }, "pop" : 476 }
{ "_id" : { "city" : "CHIRENO", "state" : "TX" }, "pop" : 3983 }
{ "_id" : { "city" : "NEWRY", "state" : "ME" }, "pop" : 300 }
{ "_id" : { "city" : "CUYLER", "state" : "NY" }, "pop" : 920 }
{ "_id" : { "city" : "CENTERVILLE", "state" : "TN" }, "pop" : 5955 }
{ "_id" : { "city" : "AUGUSTA", "state" : "MI" }, "pop" : 2896 }
{ "_id" : { "city" : "BACONTON", "state" : "GA" }, "pop" : 2566 }
{ "_id" : { "city" : "ALLISON", "state" : "PA" }, "pop" : 326 }
{ "_id" : { "city" : "MOUNT PLEASANT M", "state" : "PA" }, "pop" : 1876 }
{ "_id" : { "city" : "DOLGEVILLE", "state" : "NY" }, "pop" : 4205 }
{ "_id" : { "city" : "HANNA", "state" : "WY" }, "pop" : 1585 }
```

Type "it" for more

> it

```
{ "_id" : { "city" : "LATHAM", "state" : "OH" }, "pop" : 351 }
{ "_id" : { "city" : "HANKSVILLE", "state" : "UT" }, "pop" : 373 }
{ "_id" : { "city" : "BONETRAILL", "state" : "ND" }, "pop" : 16473 }
{ "_id" : { "city" : "OLNEY", "state" : "MO" }, "pop" : 351 }
{ "_id" : { "city" : "SAN MATEO", "state" : "CA" }, "pop" : 59468 }
{ "_id" : { "city" : "EAST QUOGUE", "state" : "NY" }, "pop" : 4181 }
{ "_id" : { "city" : "HAWKINSVILLE", "state" : "GA" }, "pop" : 9154 }
{ "_id" : { "city" : "CROMBERG", "state" : "CA" }, "pop" : 1774 }
{ "_id" : { "city" : "BURKETT", "state" : "TX" }, "pop" : 237 }
{ "_id" : { "city" : "MANORVILLE", "state" : "PA" }, "pop" : 418 }
{ "_id" : { "city" : "BEAR LAKE", "state" : "PA" }, "pop" : 1042 }
{ "_id" : { "city" : "POTSDAM", "state" : "NY" }, "pop" : 16342 }
{ "_id" : { "city" : "RICEBORO", "state" : "GA" }, "pop" : 1737 }
{ "_id" : { "city" : "AVOCA", "state" : "WI" }, "pop" : 1072 }
{ "_id" : { "city" : "GRISSOM AIR FORC", "state" : "IN" }, "pop" : 4364 }
{ "_id" : { "city" : "RUTHVEN", "state" : "IA" }, "pop" : 1283 }
{ "_id" : { "city" : "LINCOLN VILLAGE", "state" : "OH" }, "pop" : 37615 }
{ "_id" : { "city" : "MAYVILLE", "state" : "MI" }, "pop" : 4271 }
{ "_id" : { "city" : "FOLEY", "state" : "MN" }, "pop" : 4078 }
{ "_id" : { "city" : "WORTHINGTON", "state" : "MO" }, "pop" : 438 }
```

Type "it" for more

> it

```
{ "_id" : { "city" : "WAVERLY", "state" : "VA" }, "pop" : 4581 }
{ "_id" : { "city" : "TIPTON", "state" : "IA" }, "pop" : 5751 }
{ "_id" : { "city" : "SIDNEY", "state" : "MT" }, "pop" : 7229 }
{ "_id" : { "city" : "TRION", "state" : "GA" }, "pop" : 5963 }
```

```
{ "_id" : { "city" : "PRINSBURG", "state" : "MN" }, "pop" : 931 }
{ "_id" : { "city" : "MCINTOSH", "state" : "MN" }, "pop" : 1088 }
{ "_id" : { "city" : "GOLDSTON", "state" : "NC" }, "pop" : 1814 }
{ "_id" : { "city" : "JENNINGS", "state" : "KS" }, "pop" : 347 }
{ "_id" : { "city" : "SUNNYVALE", "state" : "CA" }, "pop" : 117550 }
{ "_id" : { "city" : "JENNINGS", "state" : "MD" }, "pop" : 3138 }
{ "_id" : { "city" : "LOTHIAN", "state" : "MD" }, "pop" : 5081 }
{ "_id" : { "city" : "RADCLIFF", "state" : "OH" }, "pop" : 1413 }
{ "_id" : { "city" : "JESUP", "state" : "IA" }, "pop" : 3505 }
{ "_id" : { "city" : "MOUNT AUBURN", "state" : "IL" }, "pop" : 1011 }
{ "_id" : { "city" : "GALENA", "state" : "KS" }, "pop" : 5961 }
{ "_id" : { "city" : "WEST RUSH", "state" : "NY" }, "pop" : 2481 }
{ "_id" : { "city" : "LIVINGSTON", "state" : "TN" }, "pop" : 7274 }
{ "_id" : { "city" : "SULPHUR", "state" : "IN" }, "pop" : 303 }
{ "_id" : { "city" : "KYANA", "state" : "IN" }, "pop" : 2012 }
{ "_id" : { "city" : "MASSENA", "state" : "NY" }, "pop" : 16145 }
```

Type "it" for more

2:

>

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

```
{ "_id" : { "city" : "CHICAGO", "state" : "IL" }, "pop" : 2452177 }
{ "_id" : { "city" : "BROOKLYN", "state" : "NY" }, "pop" : 2300504 }
{ "_id" : { "city" : "LOS ANGELES", "state" : "CA" }, "pop" : 2102295 }
{ "_id" : { "city" : "HOUSTON", "state" : "TX" }, "pop" : 2095918 }
{ "_id" : { "city" : "PHILADELPHIA", "state" : "PA" }, "pop" : 1610956 }
{ "_id" : { "city" : "NEW YORK", "state" : "NY" }, "pop" : 1476790 }
{ "_id" : { "city" : "BRONX", "state" : "NY" }, "pop" : 1209548 }
{ "_id" : { "city" : "SAN DIEGO", "state" : "CA" }, "pop" : 1049298 }
{ "_id" : { "city" : "DETROIT", "state" : "MI" }, "pop" : 963243 }
{ "_id" : { "city" : "DALLAS", "state" : "TX" }, "pop" : 940191 }
{ "_id" : { "city" : "PHOENIX", "state" : "AZ" }, "pop" : 890853 }
{ "_id" : { "city" : "MIAMI", "state" : "FL" }, "pop" : 825232 }
{ "_id" : { "city" : "SAN JOSE", "state" : "CA" }, "pop" : 816653 }
{ "_id" : { "city" : "SAN ANTONIO", "state" : "TX" }, "pop" : 811792 }
{ "_id" : { "city" : "BALTIMORE", "state" : "MD" }, "pop" : 733081 }
{ "_id" : { "city" : "SAN FRANCISCO", "state" : "CA" }, "pop" : 723993 }
{ "_id" : { "city" : "MEMPHIS", "state" : "TN" }, "pop" : 632837 }
{ "_id" : { "city" : "SACRAMENTO", "state" : "CA" }, "pop" : 628279 }
{ "_id" : { "city" : "JACKSONVILLE", "state" : "FL" }, "pop" : 610160 }
{ "_id" : { "city" : "ATLANTA", "state" : "GA" }, "pop" : 609591 }
```

3:

```
>
db.zipcodes.aggregate([{$group:{_id:{city:"$city",state:"$state"},pop:{$sum:"$pop"}},{sort:{pop:-1}},{$limit:3}}])
{"_id":{"city":"CHICAGO","state":"IL"},"pop":2452177}
{"_id":{"city":"BROOKLYN","state":"NY"},"pop":2300504}
{"_id":{"city":"LOS ANGELES","state":"CA"},"pop":2102295}
4:
>>
```

```
db.zipcodes.aggregate([{$match:{state:"TX"}},{ $group:{_id:{city:"$city"},pop:{$sum:"$pop"}},{sort:{pop:-1}},{$limit:3}}])
{"_id":{"city":"HOUSTON"},"pop":2095918}
{"_id":{"city":"DALLAS"},"pop":940191}
{"_id":{"city":"SAN ANTONIO"},"pop":811792}
```

Part 4

```
1:
> db.zipcodes.aggregate([{$group:{_id:{city:"$city",state:"$state"},average_pop:{$avg:"$pop"}},{sort:{average_pop:-1}},{$limit:3}}])
{"_id":{"city":"NEW SWEDEN","state":"ME"},"average_pop":935}
{"_id":{"city":"LELAND","state":"IA"},"average_pop":333}
{"_id":{"city":"WEST POLAND","state":"ME"},"average_pop":733}
{"_id":{"city":"BURKE","state":"NY"},"average_pop":1279}
{"_id":{"city":"BLUE HILL FALLS","state":"ME"},"average_pop":375}
{"_id":{"city":"LEWISTON","state":"NE"},"average_pop":189}
{"_id":{"city":"MICO","state":"TX"},"average_pop":230}
{"_id":{"city":"CRYSTAL","state":"MN"},"average_pop":33233}
{"_id":{"city":"SERGEANT BLUFF","state":"IA"},"average_pop":2853}
{"_id":{"city":"BAXTER","state":"KY"},"average_pop":2151}
{"_id":{"city":"WINDSOR","state":"CT"},"average_pop":27815}
{"_id":{"city":"BULLFROG","state":"UT"},"average_pop":125}
{"_id":{"city":"SAINT JAMES","state":"NY"},"average_pop":14211}
{"_id":{"city":"PIMA","state":"AZ"},"average_pop":2881}
{"_id":{"city":"NAVAJO","state":"AZ"},"average_pop":41}
{"_id":{"city":"CEDAR CREST","state":"NM"},"average_pop":1860}
{"_id":{"city":"PORT HUENEME CBC","state":"CA"},"average_pop":3389}
{"_id":{"city":"BOSTON","state":"NY"},"average_pop":2617}
{"_id":{"city":"MINSTER","state":"OH"},"average_pop":4436}
{"_id":{"city":"WELTY","state":"OK"},"average_pop":286}
```

Type "it" for more

```
2:
>
db.zipcodes.aggregate([{$group:{_id:{city:"$city",state:"$state"},average_pop:{$avg:"$pop"}},{sort:{average_pop:-1}},{$limit:3}}])
{"_id":{"city":"BELL GARDENS","state":"CA"},"average_pop":99568}
{"_id":{"city":"NORWALK","state":"CA"},"average_pop":94188}
{"_id":{"city":"ARLETA","state":"CA"},"average_pop":88114}
```

