> use populations

switched to db populations

> show collections

> use population

switched to db population

> show collections

Zipcodes

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

{ "\_id" : "01001", "city" : "AGAWAM", "loc" : [ -72.622739, 42.070206 ], "pop" : 15338, "state" : "MA" }

{ "\_id" : "01002", "city" : "CUSHMAN", "loc" : [ -72.51565, 42.377017 ], "pop" : 36963, "state" : "MA" }

{ "\_id" : "01005", "city" : "BARRE", "loc" : [ -72.108354, 42.409698 ], "pop" : 4546, "state" : "MA" }

{ "\_id" : "01007", "city" : "BELCHERTOWN", "loc" : [ -72.410953, 42.275103 ], "pop" : 10579, "state" : "MA" }

{ "\_id" : "01008", "city" : "BLANDFORD", "loc" : [ -72.936114, 42.182949 ], "pop" : 1240, "state" : "MA" }

{ "\_id" : "01010", "city" : "BRIMFIELD", "loc" : [ -72.188455, 42.116543 ], "pop" : 3706, "state" : "MA" }

{ "\_id" : "01011", "city" : "CHESTER", "loc" : [ -72.988761, 42.279421 ], "pop" : 1688, "state" : "MA" }

{ "\_id" : "01012", "city" : "CHESTERFIELD", "loc" : [ -72.833309, 42.38167 ], "pop" : 177, "state" : "MA" }

{ "\_id" : "01013", "city" : "CHICOPEE", "loc" : [ -72.607962, 42.162046 ], "pop" : 23396, "state" : "MA" }

{ "\_id" : "01020", "city" : "CHICOPEE", "loc" : [ -72.576142, 42.176443 ], "pop" : 31495, "state" : "MA" }

{ "\_id" : "01022", "city" : "WESTOVER AFB", "loc" : [ -72.558657, 42.196672 ], "pop" : 1764, "state" : "MA" }

{ "\_id" : "01026", "city" : "CUMMINGTON", "loc" : [ -72.905767, 42.435296 ], "pop" : 1484, "state" : "MA" }

{ "\_id" : "01027", "city" : "MOUNT TOM", "loc" : [ -72.679921, 42.264319 ], "pop" : 16864, "state" : "MA" }

{ "\_id" : "01028", "city" : "EAST LONGMEADOW", "loc" : [ -72.505565, 42.067203 ], "pop" : 13367, "state" : "MA" }

{ "\_id" : "01030", "city" : "FEEDING HILLS", "loc" : [ -72.675077, 42.07182 ], "pop" : 11985, "state" : "MA" }

{ "\_id" : "01031", "city" : "GILBERTVILLE", "loc" : [ -72.198585, 42.332194 ], "pop" : 2385, "state" : "MA" }

{ "\_id" : "01032", "city" : "GOSHEN", "loc" : [ -72.844092, 42.466234 ], "pop" : 122, "state" : "MA" }

{ "\_id" : "01033", "city" : "GRANBY", "loc" : [ -72.520001, 42.255704 ], "pop" : 5526, "state" : "MA" }

{ "\_id" : "01034", "city" : "TOLLAND", "loc" : [ -72.908793, 42.070234 ], "pop" : 1652, "state" : "MA" }

{ "\_id" : "01035", "city" : "HADLEY", "loc" : [ -72.571499, 42.36062 ], "pop" : 4231, "state" : "MA" }

Type "it" for more

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

{ "\_id" : "14808", "city" : "ATLANTA", "loc" : [ -77.480091, 42.556269 ], "pop" : 472, "state" : "NY" }

{ "\_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" }

Type "it" for more

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

{ "\_id" : null }

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

{ "\_id" : null, "count" : 630046 }

Population by states

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

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

{ "\_id" : "NV", "state" : 1201833 }

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

{ "\_id" : "OK", "state" : 3145585 }

{ "\_id" : "AZ", "state" : 3665228 }

{ "\_id" : "SD", "state" : 695397 }

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

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

{ "\_id" : "CO", "state" : 3293755 }

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

{ "\_id" : "WY", "state" : 453528 }

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

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

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

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

{ "\_id" : "ME", "state" : 1226648 }

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

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

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

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

> db.zipcodes.aggregate({$group: {\_id: '$state', state: {$sum: '$pop'}}}, {$sort: {state : -1}})

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Type "it" for more

> db.zipcodes.aggregate({$group: {\_id: '$state', state: {$sum: '$pop'}}}, {$sort: {state : -1}}, {$limit: (4)})

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

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

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

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

> db.zipcodes.aggregate({$group: {\_id: {state: '$state', city: '$city' }, city: {$sum : '$pop'}}})

{ "\_id" : { "state" : "ME", "city" : "WEST PARIS" }, "city" : 2149 }

{ "\_id" : { "state" : "NY", "city" : "ELIZABETHTOWN" }, "city" : 1274 }

{ "\_id" : { "state" : "NM", "city" : "GLADSTONE" }, "city" : 45 }

{ "\_id" : { "state" : "IL", "city" : "CIMIC" }, "city" : 1484 }

{ "\_id" : { "state" : "AL", "city" : "TRUSSVILLE" }, "city" : 13367 }

{ "\_id" : { "state" : "VA", "city" : "OAK HALL" }, "city" : 130 }

{ "\_id" : { "state" : "IL", "city" : "ARLINGTON HEIGHT" }, "city" : 79689 }

{ "\_id" : { "state" : "KY", "city" : "JINKS" }, "city" : 13349 }

{ "\_id" : { "state" : "AK", "city" : "HOOPER BAY" }, "city" : 1443 }

{ "\_id" : { "state" : "MN", "city" : "WILLIAMS" }, "city" : 1257 }

{ "\_id" : { "state" : "NY", "city" : "CAROGA LAKE" }, "city" : 545 }

{ "\_id" : { "state" : "KY", "city" : "WOOLLUM" }, "city" : 219 }

{ "\_id" : { "state" : "AL", "city" : "MORVIN" }, "city" : 24 }

{ "\_id" : { "state" : "OH", "city" : "GERMANTOWN" }, "city" : 8187 }

{ "\_id" : { "state" : "IL", "city" : "HENRY" }, "city" : 3255 }

{ "\_id" : { "state" : "IN", "city" : "BORDEN" }, "city" : 4080 }

{ "\_id" : { "state" : "KS", "city" : "MANKATO" }, "city" : 1929 }

{ "\_id" : { "state" : "TN", "city" : "ROGERSVILLE" }, "city" : 10374 }

{ "\_id" : { "state" : "KS", "city" : "DELPHOS" }, "city" : 639 }

{ "\_id" : { "state" : "NE", "city" : "DODGE" }, "city" : 2151 }

Type "it" for more

Population in city

> db.zipcodes.aggregate({$group: {\_id: {state: '$state', city: '$city' }, city: {$sum : '$pop'}}}, {$sort: {city: -1}})

{ "\_id" : { "state" : "IL", "city" : "CHICAGO" }, "city" : 2452177 }

{ "\_id" : { "state" : "NY", "city" : "BROOKLYN" }, "city" : 2300504 }

{ "\_id" : { "state" : "CA", "city" : "LOS ANGELES" }, "city" : 2102295 }

{ "\_id" : { "state" : "TX", "city" : "HOUSTON" }, "city" : 2095918 }

{ "\_id" : { "state" : "PA", "city" : "PHILADELPHIA" }, "city" : 1610956 }

{ "\_id" : { "state" : "NY", "city" : "NEW YORK" }, "city" : 1476790 }

{ "\_id" : { "state" : "NY", "city" : "BRONX" }, "city" : 1209548 }

{ "\_id" : { "state" : "CA", "city" : "SAN DIEGO" }, "city" : 1049298 }

{ "\_id" : { "state" : "MI", "city" : "DETROIT" }, "city" : 963243 }

{ "\_id" : { "state" : "TX", "city" : "DALLAS" }, "city" : 940191 }

{ "\_id" : { "state" : "AZ", "city" : "PHOENIX" }, "city" : 890853 }

{ "\_id" : { "state" : "FL", "city" : "MIAMI" }, "city" : 825232 }

{ "\_id" : { "state" : "CA", "city" : "SAN JOSE" }, "city" : 816653 }

{ "\_id" : { "state" : "TX", "city" : "SAN ANTONIO" }, "city" : 811792 }

{ "\_id" : { "state" : "MD", "city" : "BALTIMORE" }, "city" : 733081 }

{ "\_id" : { "state" : "CA", "city" : "SAN FRANCISCO" }, "city" : 723993 }

{ "\_id" : { "state" : "TN", "city" : "MEMPHIS" }, "city" : 632837 }

{ "\_id" : { "state" : "CA", "city" : "SACRAMENTO" }, "city" : 628279 }

{ "\_id" : { "state" : "FL", "city" : "JACKSONVILLE" }, "city" : 610160 }

{ "\_id" : { "state" : "GA", "city" : "ATLANTA" }, "city" : 609591 }

Type "it" for more

> db.zipcodes.aggregate({$group: {\_id: '$state', state: {$sum: '$pop'}}}, {$sort: {state : -1}})

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Type "it" for more

> db.zipcodes.aggregate({$group: {\_id: '$state', state: {$sum: '$pop'}}}, {$sort: {state : -1}}, {$limit: (4)})

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

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

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

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

> db.zipcodes.aggregate({$group: {\_id: {state: '$state', city: '$city' }, city: {$sum : '$pop'}}})

{ "\_id" : { "state" : "ME", "city" : "WEST PARIS" }, "city" : 2149 }

{ "\_id" : { "state" : "NY", "city" : "ELIZABETHTOWN" }, "city" : 1274 }

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{ "\_id" : { "state" : "AK", "city" : "HOOPER BAY" }, "city" : 1443 }

{ "\_id" : { "state" : "MN", "city" : "WILLIAMS" }, "city" : 1257 }

{ "\_id" : { "state" : "NY", "city" : "CAROGA LAKE" }, "city" : 545 }

{ "\_id" : { "state" : "KY", "city" : "WOOLLUM" }, "city" : 219 }

{ "\_id" : { "state" : "AL", "city" : "MORVIN" }, "city" : 24 }

{ "\_id" : { "state" : "OH", "city" : "GERMANTOWN" }, "city" : 8187 }

{ "\_id" : { "state" : "IL", "city" : "HENRY" }, "city" : 3255 }

{ "\_id" : { "state" : "IN", "city" : "BORDEN" }, "city" : 4080 }

{ "\_id" : { "state" : "KS", "city" : "MANKATO" }, "city" : 1929 }

{ "\_id" : { "state" : "TN", "city" : "ROGERSVILLE" }, "city" : 10374 }

{ "\_id" : { "state" : "KS", "city" : "DELPHOS" }, "city" : 639 }

{ "\_id" : { "state" : "NE", "city" : "DODGE" }, "city" : 2151 }

Type "it" for more

> db.zipcodes.aggregate({$group: {\_id: {state: '$state', city: '$city' }, city: {$sum : '$pop'}}}, {$sort: {city: -1}})

{ "\_id" : { "state" : "IL", "city" : "CHICAGO" }, "city" : 2452177 }

{ "\_id" : { "state" : "NY", "city" : "BROOKLYN" }, "city" : 2300504 }

{ "\_id" : { "state" : "CA", "city" : "LOS ANGELES" }, "city" : 2102295 }

{ "\_id" : { "state" : "TX", "city" : "HOUSTON" }, "city" : 2095918 }

{ "\_id" : { "state" : "PA", "city" : "PHILADELPHIA" }, "city" : 1610956 }

{ "\_id" : { "state" : "NY", "city" : "NEW YORK" }, "city" : 1476790 }

{ "\_id" : { "state" : "NY", "city" : "BRONX" }, "city" : 1209548 }

{ "\_id" : { "state" : "CA", "city" : "SAN DIEGO" }, "city" : 1049298 }

{ "\_id" : { "state" : "MI", "city" : "DETROIT" }, "city" : 963243 }

{ "\_id" : { "state" : "TX", "city" : "DALLAS" }, "city" : 940191 }

{ "\_id" : { "state" : "AZ", "city" : "PHOENIX" }, "city" : 890853 }

{ "\_id" : { "state" : "FL", "city" : "MIAMI" }, "city" : 825232 }

{ "\_id" : { "state" : "CA", "city" : "SAN JOSE" }, "city" : 816653 }

{ "\_id" : { "state" : "TX", "city" : "SAN ANTONIO" }, "city" : 811792 }

{ "\_id" : { "state" : "MD", "city" : "BALTIMORE" }, "city" : 733081 }

{ "\_id" : { "state" : "CA", "city" : "SAN FRANCISCO" }, "city" : 723993 }

{ "\_id" : { "state" : "TN", "city" : "MEMPHIS" }, "city" : 632837 }

{ "\_id" : { "state" : "CA", "city" : "SACRAMENTO" }, "city" : 628279 }

{ "\_id" : { "state" : "FL", "city" : "JACKSONVILLE" }, "city" : 610160 }

{ "\_id" : { "state" : "GA", "city" : "ATLANTA" }, "city" : 609591 }

Type "it" for more

Bonus

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

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