Atlanta Population

1.

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> db.zipcodes.find({ $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

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> it

{ "\_id" : "30330", "city" : "ATLANTA", "loc" : [ -84.434735, 33.70645 ], "pop" : 643, "state" : "GA" }

{ "\_id" : "30331", "city" : "ATLANTA", "loc" : [ -84.520468, 33.72241 ], "pop" : 38185, "state" : "GA" }

{ "\_id" : "30334", "city" : "ATLANTA", "loc" : [ -84.388188, 33.74715 ], "pop" : 0, "state" : "GA" }

{ "\_id" : "30336", "city" : "ATLANTA", "loc" : [ -84.510028, 33.78534 ], "pop" : 1228, "state" : "GA" }

{ "\_id" : "30339", "city" : "ATLANTA", "loc" : [ -84.462879, 33.87125 ], "pop" : 11158, "state" : "GA" }

{ "\_id" : "30342", "city" : "ATLANTA", "loc" : [ -84.376091, 33.884245 ], "pop" : 19057, "state" : "GA" }

{ "\_id" : "30345", "city" : "ATLANTA", "loc" : [ -84.286961, 33.851347 ], "pop" : 19825, "state" : "GA" }

{ "\_id" : "30346", "city" : "ATLANTA", "loc" : [ -84.333354, 33.926717 ], "pop" : 18, "state" : "GA" }

{ "\_id" : "30349", "city" : "ATLANTA", "loc" : [ -84.481258, 33.605331 ], "pop" : 48116, "state" : "GA" }

{ "\_id" : "30350", "city" : "ATLANTA", "loc" : [ -84.341146, 33.979471 ], "pop" : 24573, "state" : "GA" }

{ "\_id" : "30360", "city" : "ATLANTA", "loc" : [ -84.271645, 33.937772 ], "pop" : 16023, "state" : "GA" }

2.

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> db.zipcodes.aggregate(

... [

... {$match: {$and: [ { city: "ATLANTA"}, {state: "GA"}]}}])

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

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Type "it" for more

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> it

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{ "\_id" : "30346", "city" : "ATLANTA", "loc" : [ -84.333354, 33.926717 ], "pop" : 18, "state" : "GA" }

{ "\_id" : "30349", "city" : "ATLANTA", "loc" : [ -84.481258, 33.605331 ], "pop" : 48116, "state" : "GA" }

{ "\_id" : "30350", "city" : "ATLANTA", "loc" : [ -84.341146, 33.979471 ], "pop" : 24573, "state" : "GA" }

{ "\_id" : "30360", "city" : "ATLANTA", "loc" : [ -84.271645, 33.937772 ], "pop" : 16023, "state" : "GA" }

3.

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> db.zipcodes.aggregate([{$match: {city: "ATLANTA"}},

... {$group: {\_id: {\_id: "$\_id"}}}, {$count: "zipcodes"}])

{ "zipcodes" : 41 }

4.

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> db.zipcodes.aggregate([{$match: {city: "ATLANTA"}},

... ... {$group: {\_id: "$city", totalpop: {$sum: "$pop"}}}])

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

Population By State:

1.

MongoDB Enterprise > db.zipcodes.aggregate([

... {$group: {\_id: "$state", pop: {$sum: "$pop"}}}

... ])

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Type "it" for more

MongoDB Enterprise > it

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Type "it" for more

MongoDB Enterprise > it

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

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

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

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

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

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

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

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

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

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

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

2.

MongoDB Enterprise > db.zipcodes.aggregate([

... ... {$group: {\_id: "$state", pop: {$sum: "$pop"}}},

... {$sort: {pop: -1}}

... ])

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

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

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

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

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

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

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

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

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

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

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

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

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

Type "it" for more

MongoDB Enterprise > it

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Type "it" for more

MongoDB Enterprise > it

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

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

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

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

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

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

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

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

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

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

3.

MongoDB Enterprise > db.zipcodes.aggregate([

... ... ... ... {$group: {\_id: "$state", pop: {$sum: "$pop"}}},

... ... ... {$sort: {pop: -1}},

... ... {$limit: 3}

... ... ])

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

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

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

Population by city:

1.

MongoDB Enterprise > db.zipcodes.aggregate([

... ... {$group: {\_id: "$city", pop: {$sum: "$pop"}}}

... ])

{ "\_id" : "BERTHOUD", "pop" : 6886 }

{ "\_id" : "GOFF", "pop" : 537 }

{ "\_id" : "TEQUESTA", "pop" : 11781 }

{ "\_id" : "DAWSON SPRINGS", "pop" : 6728 }

{ "\_id" : "GUYSVILLE", "pop" : 359 }

{ "\_id" : "MARTHAVILLE", "pop" : 932 }

{ "\_id" : "LAKE CREEK", "pop" : 50 }

{ "\_id" : "LOUISE", "pop" : 4101 }

{ "\_id" : "ELLERSLIE", "pop" : 2153 }

{ "\_id" : "MEMPHIS", "pop" : 643495 }

{ "\_id" : "HOME", "pop" : 4661 }

{ "\_id" : "ANTONIA", "pop" : 17913 }

{ "\_id" : "NEW BADEN", "pop" : 3455 }

{ "\_id" : "MINSTER", "pop" : 4436 }

{ "\_id" : "WILLMAR", "pop" : 22069 }

{ "\_id" : "QUAMBA", "pop" : 1222 }

{ "\_id" : "CUMMING", "pop" : 36131 }

{ "\_id" : "HAMTRAMCK", "pop" : 42830 }

{ "\_id" : "LEAVITTSBURG", "pop" : 4368 }

{ "\_id" : "ROWE", "pop" : 2161 }

Type "it" for more

2.

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> db.zipcodes.aggregate([

... ... ... ... {$group: {\_id: "$city", pop: {$sum: "$pop"}}},

... ... {$sort: {pop: -1}}

... ... ... ])

{ "\_id" : "CHICAGO", "pop" : 2452177 }

{ "\_id" : "BROOKLYN", "pop" : 2341387 }

{ "\_id" : "HOUSTON", "pop" : 2123053 }

{ "\_id" : "LOS ANGELES", "pop" : 2102295 }

{ "\_id" : "PHILADELPHIA", "pop" : 1639862 }

{ "\_id" : "NEW YORK", "pop" : 1476790 }

{ "\_id" : "BRONX", "pop" : 1209548 }

{ "\_id" : "SAN DIEGO", "pop" : 1054316 }

{ "\_id" : "DALLAS", "pop" : 999042 }

{ "\_id" : "DETROIT", "pop" : 967468 }

{ "\_id" : "PHOENIX", "pop" : 902249 }

{ "\_id" : "MIAMI", "pop" : 848436 }

{ "\_id" : "COLUMBUS", "pop" : 825448 }

{ "\_id" : "SAN JOSE", "pop" : 817497 }

{ "\_id" : "SAN ANTONIO", "pop" : 813188 }

{ "\_id" : "WASHINGTON", "pop" : 780954 }

{ "\_id" : "BALTIMORE", "pop" : 738846 }

{ "\_id" : "JACKSONVILLE", "pop" : 735505 }

{ "\_id" : "SAN FRANCISCO", "pop" : 723993 }

{ "\_id" : "CLEVELAND", "pop" : 687451 }

Type "it" for more

3.

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> db.zipcodes.aggregate([

... ... ... ... ... {$group: {\_id: "$city", pop: {$sum: "$pop"}}},

... ... ... {$sort: {pop: -1}},

... {$limit: 3}

... ... ])

{ "\_id" : "CHICAGO", "pop" : 2452177 }

{ "\_id" : "BROOKLYN", "pop" : 2341387 }

{ "\_id" : "HOUSTON", "pop" : 2123053 }

4.

MongoDB Enterprise atlas-11jrht-shard-0:PRIMARY> db.zipcodes.aggregate([

... ... {$match: {state: "TX"}},

... {$group: {\_id: {city: "$city", state: "$state"},totalpopulation: {$sum: "$pop"}}},

... {$sort: {totalpopulation: -1}},

... {$limit: 3}

... ])

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

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

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

Bonus:

1.

db.zipcodes.aggregate ([

... ... {$group: {\_id: {state: "$state", city: {"$city"}, pop: {$sum: "$pop"}}},

... ... {$group: {\_id: "$\_id.state", avgCityPop: {$avg: "$pop"}}}

... ... ])

2.

db.zipcodes.aggregate([

{$group: {\_id: {state: "$state"}, countpopulation: {$avg: “$pop”}}},

{$sort: {countpopulation: -1}},

{$limit: 3}

])