

```

> // $skip & $limit
>
> // sort "states" alphabetically in ascending order and count number of "cities" skip by 5 and limit by 5
> db.ZipCode.aggregate([ {$group: {_id: "$state", Count: {$sum: 1}}}, {$sort: {_id: 1}}, {$skip: 5}, {$limit: 5} ])
{ "_id" : "CO", "Count" : 414 }
{ "_id" : "CT", "Count" : 263 }
{ "_id" : "DC", "Count" : 24 }
{ "_id" : "DE", "Count" : 53 }
{ "_id" : "FL", "Count" : 804 }
>
> // sort "status" alphabetically in descending order and count number of "cities" skip by 5 and limit by 5
> db.ZipCode.aggregate([ {$group: {_id: "$state", Count: {$sum: 1}}}, {$sort: {_id: -1}}, {$skip: 5}, {$limit: 5} ])
{ "_id" : "VA", "Count" : 816 }
{ "_id" : "UT", "Count" : 205 }
{ "_id" : "TX", "Count" : 1671 }
{ "_id" : "TN", "Count" : 582 }
{ "_id" : "SD", "Count" : 384 }
>
> // count number of "cities" in a "state" by group and sort in ascending order skip by 5 and limit by 5
> db.ZipCode.aggregate([ {$group: {_id: "$state", Count: {$sum: 1}}}, {$sort: {Count: 1}}, {$skip: 5}, {$limit: 5} ])
{ "_id" : "WY", "Count" : 140 }
{ "_id" : "AK", "Count" : 195 }
{ "_id" : "UT", "Count" : 205 }
{ "_id" : "NH", "Count" : 218 }
{ "_id" : "VT", "Count" : 243 }
>
> // count number of "cities" in a "state" by group and sort in descending order skip by 5 and limit by 5
> db.ZipCode.aggregate([ {$group: {_id: "$state", Count: {$sum: 1}}}, {$sort: {Count: -1}}, {$skip: 5}, {$limit: 5} ])
{ "_id" : "OH", "Count" : 1007 }
{ "_id" : "MO", "Count" : 994 }
{ "_id" : "IA", "Count" : 922 }
{ "_id" : "MN", "Count" : 882 }
{ "_id" : "MI", "Count" : 876 }
>
> // sort "cities" by population for each "state" in ascending order and returns the smallest "cities" by population for each "state" skip by 5 and limit by 5
> db.ZipCode.aggregate([ {$group: {_id: {State: "$state", City: "$city"}, Population: {$sum: "$pop"}}}, {$sort: {Population: 1}}, {$skip: 5}, {$limit: 5} ])
{ "_id" : { "State" : "NM", "City" : "ALGODONES" }, "Population" : 0 }
{ "_id" : { "State" : "CO", "City" : "CHEYENNE MTN AFB" }, "Population" : 0 }
{ "_id" : { "State" : "ME", "City" : "BUSTINS ISLAND" }, "Population" : 0 }
{ "_id" : { "State" : "TX", "City" : "FULTON" }, "Population" : 0 }
{ "_id" : { "State" : "NM", "City" : "KIRTLAND A F B E" }, "Population" : 0 }
>
> // sort "cities" by population for each "state" in descending order and returns the largest "cities" by population for each "state" skip by 5 and limit by 5
> db.ZipCode.aggregate([ {$group: {_id: {State: "$state", City: "$city"}, Population: {$sum: "$pop"}}}, {$sort: {Population: -1}}, {$skip: 5}, {$limit: 5} ])
{ "_id" : { "State" : "NY", "City" : "NEW YORK" }, "Population" : 1476790 }
{ "_id" : { "State" : "NY", "City" : "BRONX" }, "Population" : 1209548 }
{ "_id" : { "State" : "CA", "City" : "SAN DIEGO" }, "Population" : 1049298 }
{ "_id" : { "State" : "MI", "City" : "DETROIT" }, "Population" : 963243 }
{ "_id" : { "State" : "TX", "City" : "DALLAS" }, "Population" : 940191 }
>
> // sort "cities" by population of state: "TX" and return the "city" with minimum population
> db.ZipCode.aggregate([ {$group: {_id: {State: "$state", City: "$city"}, Population: {$sum: "$pop"}}}, {$match: {"_id.State": "TX"}}, {$sort: {Population: 1}}, {$limit: 1} ])
{ "_id" : { "State" : "TX", "City" : "FULTON" }, "Population" : 0 }
>

```