

```

> // $group
>
> // count number of documents in ZipCode collection
> db.ZipCode.aggregate([ {$group: {_id: null, No_of_documents: {$sum: 1}}} ])
{ "_id" : null, "No_of_documents" : 29353 }
>
> // group "state" and count
> db.ZipCode.aggregate([ {$group: {_id: "$state", NCount: {$sum: 1}}}, {$limit: 10} ])
{ "_id" : "IL", "NCount" : 1237 }
{ "_id" : "KY", "NCount" : 809 }
{ "_id" : "MS", "NCount" : 363 }
{ "_id" : "IA", "NCount" : 922 }
{ "_id" : "WV", "NCount" : 656 }
{ "_id" : "TX", "NCount" : 1671 }
{ "_id" : "DE", "NCount" : 53 }
{ "_id" : "ID", "NCount" : 244 }
{ "_id" : "MA", "NCount" : 474 }
{ "_id" : "NM", "NCount" : 276 }
>
> // group "state" by population sum and display population >= 10000000
> db.ZipCode.aggregate([ {$group: {_id: "$state", Population: {$sum: "$pop"}}}, {$match: {Population: {$gte: 10000000}}} ])
{ "_id" : "IL", "Population" : 11427576 }
{ "_id" : "TX", "Population" : 16984601 }
{ "_id" : "OH", "Population" : 10846517 }
{ "_id" : "PA", "Population" : 11881643 }
{ "_id" : "FL", "Population" : 12686644 }
{ "_id" : "NY", "Population" : 17990402 }
{ "_id" : "CA", "Population" : 29754890 }
>
> // group "state" by population average and display average population <= 3000
> db.ZipCode.aggregate([ {$group: {_id: "$state", Average: {$avg: "$pop"}}}, {$match: {Average: {$lte: 3000}}} ])
{ "_id" : "WV", "Average" : 2733.454268292683 }
{ "_id" : "ME", "Average" : 2991.8243902439026 }
{ "_id" : "NE", "Average" : 2749.3710801393727 }
{ "_id" : "ND", "Average" : 1632.4092071611253 }
{ "_id" : "MT", "Average" : 2544.420382165605 }
{ "_id" : "AK", "Average" : 2793.3230769230768 }
{ "_id" : "SD", "Average" : 1810.9296875 }
{ "_id" : "VT", "Average" : 2315.8765432098767 }
>
> // group "state" and "city" by population sum and display average population for cities in each state
> db.ZipCode.aggregate([ {$group: {_id: {state: "$state", city: "$city"}, Population: {$sum: "$pop"}}}, {$group: {_id: "$_id.state", Average: {$avg: "$Population"}}}, {$limit: 10} ])
{ "_id" : "IL", "Average" : 9954.334494773519 }
{ "_id" : "KY", "Average" : 4767.164721141375 }
{ "_id" : "MS", "Average" : 7524.023391812865 }
{ "_id" : "IA", "Average" : 3123.0821147356583 }
{ "_id" : "WV", "Average" : 2771.4775888717154 }
{ "_id" : "TX", "Average" : 13775.02108678021 }
{ "_id" : "ID", "Average" : 4320.811158798283 }
{ "_id" : "DE", "Average" : 14481.91304347826 }
{ "_id" : "MA", "Average" : 14855.37037037037 }
{ "_id" : "NM", "Average" : 5872.360465116279 }
>

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