# MongoDB Assignment

### ${f 1.}$ display all the documents in the collection.

```
~/Desktop — mongod -
> show collections
                                                                                                                                                                                                                                                       "city" : "Kolkata"
> db.Employee.find().pretty()
                                                                                                                                       "_id" : 7,
"fname" : "Sneh",
"salary" : {
    "jan" : 15200,
                                                                                                                                                                                                                                                     "_id" : 10,
"fname" : "Shivam",
"salary" : {
    "jan" : 18200,
    "feb" : 12303,
    "march" : 1463
                     "_id" : 1,
"fname" : "Aditya",
"salary" : {
    "jan" : 34433,
    "feb" : 42343,
    "march" : 23432,
    "april" : 32423,
                                                                                                                                                              "feb" : 27303,
"march" : 31532,
"april" : 73433,
                                                                                                                                                             "april": 73433,

"may": 32465,

"june": 13446,

"july": 12376,

"aug": 21426,

"sept": 273343,

"oct": 14372,

"nov": 13414,
                                                                                                                                                                                                                                                                           "march" : 14632,
"april" : 17433,
                                                                                                                                                                                                                                                                           "may": 14465,
"june": 11446,
"july": 96476,
"aug": 91426,
"sept": 73343,
                                           "april": 32423
"may": 34235,
"june": 32766,
"july": 24686,
"aug": 89756,
"sept": 42563,
                                                                                                                                                                                                                                                                           "oct" : 94372,
"nov" : 48124,
                                                                                                                                                              "dec" : 13321
                                            "oct" : 64876,
"nov" : 23464,
                                                                                                                                        },
"city" : "Mumbai"
                                                                                                                                                                                                                                                                            "dec" : 19221
                                            "dec" : 67877
                                                                                                                                                                                                                                                     },
"city" : "Noida"
                     ),
"city" : "New Delhi"
                                                                                                                                       "_id" : 8,
"fname" : "Rajesh",
"salary" : {
    "jan" : 17700,
    "feb" : 22303,
    "march" : 34532,
    "april" : 75433,
    "mar" : 34532,
                    "_id" : 2,
"fname" : "Zilmil",
"salary" : {
    "jan" : 19133,
    "feb" : 22343,
    "march" : 22432,
    "april" : 32423,
                                                                                                                                                                                                                                                     "_id" : 11,
"fname" : "Kishore",
"salary" : {
    "jan" : 15500,
                                                                                                                                                                                                                                                                          "feb" : 12303,
"march" : 14632,
"april" : 18433,
                                                                                                                                                              "may" : 38465,

"june" : 23446,

"july" : 12476,

"aug" : 22426,

"sept" : 273343,

"oct" : 14372,
                                                                                                                                                                                                                                                                           "may": 16725,

"june": 14446,

"july": 19476,

"aug": 11426,

"sept": 13343,
                                           "may": 36235,
"june": 12766,
"july": 14686,
"aug": 81756,
"sept": 42363,
                                                                                                                                                              "nov" : 13224,
"dec" : 13321
                                                                                                                                                                                                                                                                           "oct" : 14372,
"nov" : 43124,
                                            "oct" : 64876,
"nov" : 19324,
                                                                                                                                        },
"city" : "New Delhi"
                                                                                                                                                                                                                                                                            "dec" : 13221
                                            "dec" : 34521
                     },
"city" : "Kolkata"
                                                                                                                                                                                                                                                       "city" : "Banglore"
                                                                                                                                       "_id" : 9,
"fname" : "Mukul",
"salary" : {
    "jan" : 18000,
    "feb" : 22303,
    "march" : 34632,
    "april" : 77433,
    "may" : 34655
                                                                                                                                                                                                                                                     "_id" : 12,
"fname" : "Vaibhav",
"salary" : {
    "jan" : 16500,
                    "feb" : 12403,
"march" : 54632,
"april" : 18433,
                                           "feb" : 22303,
"march" : 20432,
"april" : 33423,
                                                                                                                                                              "may" : 34465,
"june" : 21446,
"july" : 92476,
"aug" : 92426,
                                                                                                                                                                                                                                                                           "may": 56725,

"june": 54446,

"july": 99476,

"aug": 11426,

"sept": 13343,
                                           "may": 36935,
"june": 12866,
"july": 11686,
"aug": 11756,
"sept": 47363,
                                                                                                                                                              "sept" : 73343,
                                                                                                                                                              "oct" : 94372,
"nov" : 78224,
"dec" : 19321
                                                                                                                                                                                                                                                                           "oct" : 44372,
"nov" : 42124,
"dec" : 13221
                                           "oct" : 64872,
"nov" : 13324,
                                                                                                                                        },
"city" : "Kolkata"
                                            "dec" : 33521
                     },
"city" : "Gurgaon"
                                                                                                                                                                                                                                                       "city" : "Gurgaon"
                                                                                                                                        "_id" : 10,
"fname" : "Shivam",
}
```

2. display the fields id, fname for all the documents in the collection

```
[> db.Employee.find({},{fname:1})
{ "_id" : 1, "fname" : "Aditya" }
{ "_id" : 2, "fname" : "Zilmil" }
{ "_id" : 3, "fname" : "Pracheta" }
{ "_id" : 4, "fname" : "Prince" }
{ "_id" : 5, "fname" : "Ramesh" }
{ "_id" : 6, "fname" : "Vandana" }
{ "_id" : 7, "fname" : "Sneh" }
{ "_id" : 8, "fname" : "Rajesh" }
{ "_id" : 9, "fname" : "Mukul" }
{ "_id" : 10, "fname" : "Shivam" }
{ "_id" : 11, "fname" : "Kishore" }
{ "_id" : 12, "fname" : "Vaibhav" }
```

# 3. display all fields but exclude the field id for all the documents in the collection

```
> db.Employee.find({},{id:0})
{ "fname": "Aditya", "salary": { "jan": 34433, "feb": 42343, "march": 23432, "april": 32423, "may": 34235, "june": 32766, "july": 24686, "aug": 89756, "sept": 42563, "oct": 64876, "now": 23464, "dec": 67877 }, "city": "New Delhi" }
    "fname": "Zilmil", "salary": { "jan": 19133, "feb": 22343, "march": 22432, "april": 32423, "may": 36235, "june": 12766, "july": 14686, "aug": 81756, "sept": 42363, "oct": 64876, "now": 19324, "dec": 34521 }, "city": "Kolkata" }
    "fname": "Pracheta", "salary": { "jan": 19080, "feb": 22303, "march": 20432, "april": 33423, "may": 36935, "june": 12866, "july": 11686, "aug": 11756, "sept": 47363, "oct": 64872, "now": 13324, "dec": 33521 }, "city": "Noida" }
    "fname": "Prince", "salary": { "jan": 51800, "feb": 21383, "march": 20532, "april": 13423, "may": 36565, "june": 13466, "july": 11386, "aug": 11746, "sept": 473434, "oct": 64372, "nov": 13124, "dec": 33421 }, "city": "Noida" }
    "fname": "Ramesh", "salary": { "jan": 52600, "feb": 22383, "march": 21532, "april": 13433, "may": 36655, "june": 13446, "july": 11376, "aug": 11446, "sept": 473434, "oct": 64472, "nov": 13124, "dec": 33421 }, "city": "Noida" }
    "fname": "Wandana", "salary": { "jan": 15000, "feb": 24303, "march": 21532, "april": 13433, "may": 36465, "june": 13446, "july": 12376, "aug": 11426, "sept": 473434, "oct": 44672, "nov": 13444, "dec": 33421 }, "city": "Noida" }
    "fname": "Snehn, "salary": { "jan": 15000, "feb": 22303, "march": 34532, "april": 73433, "may": 32465, "june": 13446, "july": 12376, "aug": 21426, "sept": 273343, "cct": 14372, "nov": 13244, "dec": 13321 }, "city": "Noida" }
    "fname": "Raieshh', "salary": { "jan": 15000, "feb": 22303, "march": 34532, "april": 75433, "may": 32465, "june": 13446, "july": 12476, "aug": 21426, "sept": 273343, "cct": 14372, "nov": 13244, "dec": 13321 }, "city": "Numbai" }
    "fname": "Snehn, "salary": { "jan": 15000, "feb": 22303, "march": 34532, "april": 77433, "may": 34465, "june": 23446, "july": 12476, "aug": 21426, "sept": 73343
```

#### 4. display the first 5 Employees

```
bd.Employee.find().limit(5)

("id": 1, "fname": "Aditya", "salary": { "jan": 34433, "feb": 42343, "march": 23432, "april": 32423, "may": 34235, "june": 32766, "july": 24686, "aug": 89756, "sept": 42563, "oct": 64876, "nov": 23464, "dec": 67877 }, "city": "New Delhi" }

("id": 2, "fname": "Zilmil", "salary": { "jan": 19133, "feb": 22343, "march": 22432, "april": 32423, "may": 36235, "june": 12766, "july": 14686, "aug": 81756, "sept": 42636, "oct": 64876, "nov": 19324, "dec": 34521 }, "city": "Noklata" }

("id": 3, "fname": "Pracheta", "salary": { "jan": 19080, "feb": 22383, "march": 20432, "april": 33423, "may": 36935, "june": 12866, "july": 11686, "aug": 11756, "sept": 476343, "oct": 64872, "nov": 13324, "dec": 33521 }, "city": "Noida" }

("id": 4, "fname": "Prince", "salary": { "jan": 51000, "feb": 21303, "march": 20532, "april": 13423, "may": 36565, "june": 13466, "july": 11386, "aug": 11746, "sept": 473343, "oct": 64372, "nov": 13124, "dec": 33321, "city": "Noida" }

("id": 5, "fname": "Ramesh", "salary": { "jan": 52000, "feb": 220308, "march": 21532, "april": 13433, "may": 36665, "june": 13446, "july": 11376, "aug": 11446, "sept": 473343, "oct": 64372, "nov": 13124, "dec": 33421), "city": "Noida" }
```

#### 5. display the next 5 Employees after skipping first 5

```
b db.Employee.find().limit(5).skip(5)
{ "id" : 6, "fname" : "Vandana", "salary" : { "jan" : 15000, "feb" : 24303, "march" : 41532, "april" : 43433, "may" : 36465, "june" : 23446, "july" : 22376, "aug" : 11426, "sept" : "473343, "oct" : 64472, "nov" : 13427, "nov" : 13424, "dec" : 33321 }, "city" : "Gurgaon" }
{ "id" : 7, "fname" : "Sneh", "salary" : { "jan" : 15200, "feb" : 27303, "march" : 31532, "april" : 73433, "may" : 32465, "june" : 13446, "july" : 12376, "aug" : 21426, "sept" : 273343, "oct" : 14372, "nov" : 13414, "dec" : 13321 }, "city" : "Mumbai" }
{ "id" : 8, "fname" : "Rajseh", "salary" : { "jan" : 17700, "feb" : 22303, "march" : 34532, "april" : 75433, "may" : 38465, "june" : 23446, "july" : 12476, "aug" : 22426, "sept" : 273343, "oct" : 14372, "nov" : 13224, "dec" : 13321 }, "city" : "New Delhi" }
{ "id" : 9, "fname" : "Mukul", "salary" : { "jan" : 18000, "feb" : 22303, "march" : 34632, "april" : 77433, "may" : 34465, "june" : 21446, "july" : 92476, "aug" : 92426, "sept" : 73343, "oct" : 94372, "nov" : 78224, "dec" : 19321 }, "city" : "New Chilary in the complex of the co
```

6. find the Employee who stays in Gurgaon city

```
> db.Employee.find({city:"Gurgaon"},{fname:1})
{ ".id" : 3, "fname" : "Pracheta" }
{ ".id" : 6, "fname" : "Vandana" }
{ ".id" : 12, "fname" : "Vaibhav" }
```

 $7. ext{find the Employee}$  who Jan salary is less than 20000

```
|> db.Employee.find({"salary.jan":{$lt:20000}},{fname:1})
{ "_id" : 2, "fname" : "Zilmil" }
{ "_id" : 3, "fname" : "Pracheta" }
{ "_id" : 6, "fname" : "Vandana" }
{ "_id" : 7, "fname" : "Sneh" }
{ "_id" : 8, "fname" : "Rajesh" }
{ "_id" : 9, "fname" : "Mukul" }
{ "_id" : 10, "fname" : "Shivam" }
{ "_id" : 11, "fname" : "Kishore" }
{ "_id" : 12, "fname" : "Kishore" }
}
```

8. find the Employee who Jan salary is less than 20000 and who stay in Gurgaon city

```
>> db.Employee.find({$and:[{"salary.jan":{$lt:20000}},{city:"Gurgaon"}]},{fname:1,_id:0})
{ "fname" : "Pracheta" }
{ "fname" : "Vandana" }
{ "fname" : "Vaibnay" }
```

 ${f 9.}$  find the total salary of Jan month for all the employee

```
$$ $ db.Employee.aggregate({\$match:{}},{\$group:{_id:0, sum_of_jan_salary:{\$sum:"\$salary.jan"}}}) $$ { "_id" : 0, "sum_of_jan_salary" : 264666 }
```

10. count how any employee stay in Gurgaon city

```
[> db.Employee.aggregate({$match:{city:"Gurgaon"}},{$count:"city"})
{ "city" : 3 }
```