MongoDB Assignment

1. **display all the documents in the collection.**

```
> show collections
Employee
> db.Employee.find().pretty()
{
        "_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" : 42363,
                "oct" : 64876,
                "nov" : 19324,
                "dec" : 34521
        },
        "city" : "Kolkata"
}
{
        "_id" : 3,
        "fname" : "Pracheta",
        "salary" : {
                "jan" : 19000,
                "feb" : 22303,
                "march" : 20432,
                "april" : 33423,
                "may" : 36935,
                "june" : 12866,
                "july" : 11686,
                "aug" : 11756,
                "sept" : 47363,
                "oct" : 64872,
                "nov" : 13324,
                "dec" : 33521
        },
        "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" : "Rajesh",
        "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" : "Kolkata"
}
{
        "_id" : 10,
        "fname" : "Shivam",
```

```
                "city" : "Kolkata"
}
{
        "_id" : 10,
        "fname" : "Shivam",
        "salary" : {
                "jan" : 18200,
                "feb" : 12303,
                "march" : 14632,
                "april" : 17433,
                "may" : 14465,
                "june" : 11446,
                "july" : 96476,
                "aug" : 91426,
                "sept" : 73343,
                "oct" : 94372,
                "nov" : 48124,
                "dec" : 19221
        },
        "city" : "Noida"
}
{
        "_id" : 11,
        "fname" : "Kishore",
        "salary" : {
                "jan" : 15500,
                "feb" : 12303,
                "march" : 14632,
                "april" : 18433,
                "may" : 16725,
                "june" : 14446,
                "july" : 19476,
                "aug" : 11426,
                "sept" : 13343,
                "oct" : 14372,
                "nov" : 43124,
                "dec" : 13221
        },
        "city" : "Banglore"
}
{
        "_id" : 12,
        "fname" : "Vaibhav",
        "salary" : {
                "jan" : 16500,
                "feb" : 12403,
                "march" : 54632,
                "april" : 18433,
                "may" : 56725,
                "june" : 54446,
                "july" : 99476,
                "aug" : 11426,
                "sept" : 13343,
                "oct" : 44372,
                "nov" : 42124,
                "dec" : 13221
        },
        "city" : "Gurgaon"
}
> 
```

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, "nov" : 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, "nov" : 19324, "dec" : 34521 }, "city" : "Kolkata" }
{ "fname" : "Pracheta", "salary" : { "jan" : 19000, "feb" : 22303, "march" : 20432, "april" : 33423, "may" : 36935, "june" : 12866, "july" : 11686, "aug" : 11756, "sept" : 47363, "oct" : 64872, "nov" : 13324, "dec" : 33521 }, "city" : "Gurgaon" }
{ "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" }
{ "fname" : "Ramesh", "salary" : { "jan" : 25000, "feb" : 20303, "march" : 21532, "april" : 13433, "may" : 36665, "june" : 13446, "july" : 11376, "aug" : 11446, "sept" : 473343, "oct" : 64372, "nov" : 13124, "dec" : 33421 }, "city" : "Mohali" }
{ "fname" : "Vandana", "salary" : { "jan" : 15000, "feb" : 24303, "march" : 41532, "april" : 43433, "may" : 36465, "june" : 23446, "july" : 22376, "aug" : 11426, "sept" : 473343, "oct" : 64472, "nov" : 13424, "dec" : 33321 }, "city" : "Gurgaon" }
{ "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" }
{ "fname" : "Rajesh", "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" }
{ "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" : "Kolkata" }
{ "fname" : "Shivam", "salary" : { "jan" : 18200, "feb" : 12303, "march" : 14632, "april" : 17433, "may" : 14465, "june" : 11446, "july" : 96476, "aug" : 91426, "sept" : 73343, "oct" : 94372, "nov" : 48124, "dec" : 19221 }, "city" : "Noida" }
{ "fname" : "Kishore", "salary" : { "jan" : 15500, "feb" : 12303, "march" : 14632, "april" : 18433, "may" : 16725, "june" : 14446, "july" : 19476, "aug" : 11426, "sept" : 13343, "oct" : 14372, "nov" : 43124, "dec" : 13221 }, "city" : "Banglore" }
{ "fname" : "Vaibhav", "salary" : { "jan" : 16500, "feb" : 12403, "march" : 54632, "april" : 18433, "may" : 56725, "june" : 54446, "july" : 99476, "aug" : 11426, "sept" : 13343, "oct" : 44372, "nov" : 42124, "dec" : 13221 }, "city" : "Gurgaon" }
```

4. `display the first 5 Employees`

```
> db.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" : 42363, "oct" : 64876, "nov" : 19324, "dec" : 34521 }, "city" : "Kolkata" }
{ "_id" : 3, "fname" : "Pracheta", "salary" : { "jan" : 19000, "feb" : 22303, "march" : 20432, "april" : 33423, "may" : 36935, "june" : 12866, "july" : 11686, "aug" : 11756, "sept" : 47363, "oct" : 64872, "nov" : 13324, "dec" : 33521 }, "city" : "Gurgaon" }
{ "_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" : 25000, "feb" : 20303, "march" : 21532, "april" : 13433, "may" : 36665, "june" : 13446, "july" : 11376, "aug" : 11446, "sept" : 473343, "oct" : 64372, "nov" : 13124, "dec" : 33421 }, "city" : "Mohali" }
```

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

```
> 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" : 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" : "Rajesh", "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" : "Kolkata" }
{ "_id" : 10, "fname" : "Shivam", "salary" : { "jan" : 18200, "feb" : 12303, "march" : 14632, "april" : 17433, "may" : 14465, "june" : 11446, "july" : 96476, "aug" : 91426, "sept" : 73343, "oct" : 94372, "nov" : 48124, "dec" : 19221 }, "city" : "Noida" }
```

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. 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" : "Vaibhav" }
```

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" : "Vaibhav" }
```

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 }
```