**No SQL Assignment**

**Q-1** Retrieve all employee records.

test> use db1

switched to db db1

**Input:-**

db1> db.collection.insertMany([

... { "name": "Alice Johnson", "age": 30, "department": "HR", "salary": 60000, "joining\_date": "2019-05-15" },

... { "name": "Bob Smith", "age": 40, "department": "IT", "salary": 80000, "joining\_date": "2015-08-20" },

... { "name": "Charlie Brown", "age": 35, "department": "Finance", "salary": 75000, "joining\_date": "2018-11-30" },

... { "name": "David White", "age": 28, "department": "IT", "salary": 72000, "joining\_date": "2021-01-10" },

... { "name": "Emma Wilson", "age": 32, "department": "Marketing", "salary": 65000, "joining\_date": "2017-03-25" },

... { "name": "Franklin Adams", "age": 45, "department": "Finance", "salary": 90000, "joining\_date": "2010-07-12" },

... { "name": "Grace Lee", "age": 29, "department": "HR", "salary": 58000, "joining\_date": "2020-06-05" },

... { "name": "Henry Ford", "age": 50, "department": "IT", "salary": 95000, "joining\_date": "2008-12-15" },

... { "name": "Isabella Martinez", "age": 38, "department": "Marketing", "salary": 70000, "joining\_date": "2016-09-18" },

... { "name": "Jack Carter", "age": 27, "department": "Finance", "salary": 68000, "joining\_date": "2022-04-10" }

... ]);

{

acknowledged: true,

insertedIds: {

'0': ObjectId('685ec9afe01494b72d748a5f'),

'1': ObjectId('685ec9afe01494b72d748a60'),

'2': ObjectId('685ec9afe01494b72d748a61'),

'3': ObjectId('685ec9afe01494b72d748a62'),

'4': ObjectId('685ec9afe01494b72d748a63'),

'5': ObjectId('685ec9afe01494b72d748a64'),

'6': ObjectId('685ec9afe01494b72d748a65'),

'7': ObjectId('685ec9afe01494b72d748a66'),

'8': ObjectId('685ec9afe01494b72d748a67'),

'9': ObjectId('685ec9afe01494b72d748a68')

}

}

**Output:-**

db1> db.collection.find();

[

{

\_id: ObjectId('685ec9afe01494b72d748a5f'),

name: 'Alice Johnson',

age: 30,

department: 'HR',

salary: 60000,

joining\_date: '2019-05-15'

},

{

\_id: ObjectId('685ec9afe01494b72d748a60'),

name: 'Bob Smith',

age: 40,

department: 'IT',

salary: 80000,

joining\_date: '2015-08-20'

},

{

\_id: ObjectId('685ec9afe01494b72d748a61'),

name: 'Charlie Brown',

age: 35,

department: 'Finance',

salary: 75000,

joining\_date: '2018-11-30'

},

{

\_id: ObjectId('685ec9afe01494b72d748a62'),

name: 'David White',

age: 28,

department: 'IT',

salary: 72000,

joining\_date: '2021-01-10'

},

{

\_id: ObjectId('685ec9afe01494b72d748a63'),

name: 'Emma Wilson',

age: 32,

department: 'Marketing',

salary: 65000,

joining\_date: '2017-03-25'

},

{

\_id: ObjectId('685ec9afe01494b72d748a64'),

name: 'Franklin Adams',

age: 45,

department: 'Finance',

salary: 90000,

joining\_date: '2010-07-12'

},

{

\_id: ObjectId('685ec9afe01494b72d748a65'),

name: 'Grace Lee',

age: 29,

department: 'HR',

salary: 58000,

joining\_date: '2020-06-05'

},

{

\_id: ObjectId('685ec9afe01494b72d748a66'),

name: 'Henry Ford',

age: 50,

department: 'IT',

salary: 95000,

joining\_date: '2008-12-15'

},

{

\_id: ObjectId('685ec9afe01494b72d748a67'),

name: 'Isabella Martinez',

age: 38,

department: 'Marketing',

salary: 70000,

joining\_date: '2016-09-18'

},

{

\_id: ObjectId('685ec9afe01494b72d748a68'),

name: 'Jack Carter',

age: 27,

department: 'Finance',

salary: 68000,

joining\_date: '2022-04-10'

}

]

**Q-2** Find employees who work in the IT department.

**Input:-**

db1> db.collection.find({department:'IT'});

**Output:-**

[

{

\_id: ObjectId('685ec9afe01494b72d748a60'),

name: 'Bob Smith',

age: 40,

department: 'IT',

salary: 80000,

joining\_date: '2015-08-20'

},

{

\_id: ObjectId('685ec9afe01494b72d748a62'),

name: 'David White',

age: 28,

department: 'IT',

salary: 72000,

joining\_date: '2021-01-10'

},

{

\_id: ObjectId('685ec9afe01494b72d748a66'),

name: 'Henry Ford',

age: 50,

department: 'IT',

salary: 95000,

joining\_date: '2008-12-15'

}

]

**Q-3** Find employees who have a salary greater than 70,000.

**Input:-**

db1> db.collection.find({salary:{$gt:70000}});

**Output:-**

[

{

\_id: ObjectId('685ec9afe01494b72d748a60'),

name: 'Bob Smith',

age: 40,

department: 'IT',

salary: 80000,

joining\_date: '2015-08-20'

},

{

\_id: ObjectId('685ec9afe01494b72d748a61'),

name: 'Charlie Brown',

age: 35,

department: 'Finance',

salary: 75000,

joining\_date: '2018-11-30'

},

{

\_id: ObjectId('685ec9afe01494b72d748a62'),

name: 'David White',

age: 28,

department: 'IT',

salary: 72000,

joining\_date: '2021-01-10'

},

{

\_id: ObjectId('685ec9afe01494b72d748a64'),

name: 'Franklin Adams',

age: 45,

department: 'Finance',

salary: 90000,

joining\_date: '2010-07-12'

},

{

\_id: ObjectId('685ec9afe01494b72d748a66'),

name: 'Henry Ford',

age: 50,

department: 'IT',

salary: 95000,

joining\_date: '2008-12-15'

}

]

**Q-4** Find employees who joined after 2018.

**Input:-**

db1> db.collection.find({joining\_date:{$gt:'2018-12-31'}});

**Output:-**

[

{

\_id: ObjectId('685ec9afe01494b72d748a5f'),

name: 'Alice Johnson',

age: 30,

department: 'HR',

salary: 60000,

joining\_date: '2019-05-15'

},

{

\_id: ObjectId('685ec9afe01494b72d748a62'),

name: 'David White',

age: 28,

department: 'IT',

salary: 72000,

joining\_date: '2021-01-10'

},

{

\_id: ObjectId('685ec9afe01494b72d748a65'),

name: 'Grace Lee',

age: 29,

department: 'HR',

salary: 58000,

joining\_date: '2020-06-05'

},

{

\_id: ObjectId('685ec9afe01494b72d748a68'),

name: 'Jack Carter',

age: 27,

department: 'Finance',

salary: 68000,

joining\_date: '2022-04-10'

}

]

**Q-5** Find employees between the ages of 30 and 40.

**Input:-**

db1> db.collection.find({age: { $gte: 30, $lte: 40 }});

**Output:-**

[

{

\_id: ObjectId('685ec9afe01494b72d748a5f'),

name: 'Alice Johnson',

age: 30,

department: 'HR',

salary: 60000,

joining\_date: '2019-05-15'

},

{

\_id: ObjectId('685ec9afe01494b72d748a60'),

name: 'Bob Smith',

age: 40,

department: 'IT',

salary: 80000,

joining\_date: '2015-08-20'

},

{

\_id: ObjectId('685ec9afe01494b72d748a61'),

name: 'Charlie Brown',

age: 35,

department: 'Finance',

salary: 75000,

joining\_date: '2018-11-30'

},

{

\_id: ObjectId('685ec9afe01494b72d748a63'),

name: 'Emma Wilson',

age: 32,

department: 'Marketing',

salary: 65000,

joining\_date: '2017-03-25'

},

{

\_id: ObjectId('685ec9afe01494b72d748a67'),

name: 'Isabella Martinez',

age: 38,

department: 'Marketing',

salary: 70000,

joining\_date: '2016-09-18'

}

]

**Q-6** Increase the salary of all employees in the Finance department by 5%.

**Input:-**

db.collection.updateMany({ department: "Finance" },{ $mul: { salary: 1.05 } });

**Output:-**

* **Before this code the output is ,**

{

\_id: ObjectId('685ec9afe01494b72d748a61'),

name: 'Charlie Brown',

age: 35,

department: 'Finance',

salary: 75000,

joining\_date: '2018-11-30'

},

{

\_id: ObjectId('685ec9afe01494b72d748a64'),

name: 'Franklin Adams',

age: 45,

department: 'Finance',

salary: 90000,

joining\_date: '2010-07-12'

},

{

\_id: ObjectId('685ec9afe01494b72d748a68'),

name: 'Jack Carter',

age: 27,

department: 'Finance',

salary: 68000,

joining\_date: '2022-04-10'

}

* **After the Increasing salary,**

{

\_id: ObjectId('685ec9afe01494b72d748a61'),

name: 'Charlie Brown',

age: 35,

department: 'Finance',

salary: 78750,

joining\_date: '2018-11-30'

},

{

\_id: ObjectId('685ec9afe01494b72d748a64'),

name: 'Franklin Adams',

age: 45,

department: 'Finance',

salary: 94500,

joining\_date: '2010-07-12'

},

{

\_id: ObjectId('685ec9afe01494b72d748a68'),

name: 'Jack Carter',

age: 27,

department: 'Finance',

salary: 71400,

joining\_date: '2022-04-10'

}

**Q-7** Delete employees who joined before 2010.

**Input:-**

db1> db.collection.deleteMany({joining\_date:{$lt:'2010-01-01'}});

db.collection.find();

**Output:-**

[

{

\_id: ObjectId('685ec9afe01494b72d748a5f'),

name: 'Alice Johnson',

age: 30,

department: 'HR',

salary: 60000,

joining\_date: '2019-05-15'

},

{

\_id: ObjectId('685ec9afe01494b72d748a60'),

name: 'Bob Smith',

age: 40,

department: 'IT',

salary: 80000,

joining\_date: '2015-08-20'

},

{

\_id: ObjectId('685ec9afe01494b72d748a61'),

name: 'Charlie Brown',

age: 35,

department: 'Finance',

salary: 78750,

joining\_date: '2018-11-30'

},

{

\_id: ObjectId('685ec9afe01494b72d748a62'),

name: 'David White',

age: 28,

department: 'IT',

salary: 72000,

joining\_date: '2021-01-10'

},

{

\_id: ObjectId('685ec9afe01494b72d748a63'),

name: 'Emma Wilson',

age: 32,

department: 'Marketing',

salary: 65000,

joining\_date: '2017-03-25'

},

{

\_id: ObjectId('685ec9afe01494b72d748a64'),

name: 'Franklin Adams',

age: 45,

department: 'Finance',

salary: 94500,

joining\_date: '2010-07-12'

},

{

\_id: ObjectId('685ec9afe01494b72d748a65'),

name: 'Grace Lee',

age: 29,

department: 'HR',

salary: 58000,

joining\_date: '2020-06-05'

},

{

\_id: ObjectId('685ec9afe01494b72d748a67'),

name: 'Isabella Martinez',

age: 38,

department: 'Marketing',

salary: 70000,

joining\_date: '2016-09-18'

},

{

\_id: ObjectId('685ec9afe01494b72d748a68'),

name: 'Jack Carter',

age: 27,

department: 'Finance',

salary: 71400,

joining\_date: '2022-04-10'

}

]

**Q-8** Find the highest-paid employee.

**Input:-**

db1> db.collection.find().sort({ salary: -1 }).limit(1);

**Output:-**

[

{

\_id: ObjectId('685ec9afe01494b72d748a64'),

name: 'Franklin Adams',

age: 45,

department: 'Finance',

salary: 94500,

joining\_date: '2010-07-12'

}

]