**Assignment No:1**

**Subject:** Laboratory Practice-I [ADBMS]

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**Problem Statement**

Create employee collection in company database and insert at least 10 employee information in

employee collection containing Eid , ename,disignation,hiredate,salary,hobbies and department. And

Execute following queries on employee collection.

**a) List the names of analysts and salesmen.**

company> db.emp.find({designation:{$in:["Analyst","Salesman"]}},{ename:1})

[

{ \_id: ObjectId("651043e106382ed3385d0b4c"), ename: 'Tirrion' },

{ \_id: ObjectId("651043e906382ed3385d0b4d"), ename: 'Jamie' },

{ \_id: ObjectId("6510441906382ed3385d0b52"), ename: 'Dahrio' },

{ \_id: ObjectId("6510442806382ed3385d0b54"), ename: 'Bronn' }

]

**b) List the eid , ename and salary from employee collection.**

company> db.emp.find({},{eid:1,ename:1,salary:1})

[

{

\_id: ObjectId("65103e1006382ed3385d0b4b"),

eid: 1,

ename: 'Jon',

salary: 15000

},

{

\_id: ObjectId("651043e106382ed3385d0b4c"),

eid: 2,

ename: 'Tirrion',

salary: 16000

},

{

\_id: ObjectId("651043e906382ed3385d0b4d"),

eid: 3,

ename: 'Jamie',

salary: 9000

},

{

\_id: ObjectId("651043f306382ed3385d0b4e"),

eid: 4,

ename: 'Dany',

salary: 25000

},

{

\_id: ObjectId("651043fa06382ed3385d0b4f"),

eid: 5,

ename: 'Arya',

salary: 10000

},

{

\_id: ObjectId("6510440806382ed3385d0b50"),

eid: 6,

ename: 'Sansa',

salary: 14000

},

{

\_id: ObjectId("6510441006382ed3385d0b51"),

eid: 7,

ename: 'Cersie',

salary: 17000

},

{

\_id: ObjectId("6510441906382ed3385d0b52"),

eid: 8,

ename: 'Dahrio',

salary: 13000

},

{

\_id: ObjectId("6510442206382ed3385d0b53"),

eid: 9,

ename: 'Theon',

salary: 9000

},

{

\_id: ObjectId("6510442806382ed3385d0b54"),

eid: 10,

ename: 'Bronn',

salary: 11000

}

]

**c) List names of employees who are not managers.**

company> db.emp.find({designation:{$nin:["Manager"]}},{ename:1})

[

{ \_id: ObjectId("65103e1006382ed3385d0b4b"), ename: 'Jon' },

{ \_id: ObjectId("651043e106382ed3385d0b4c"), ename: 'Tirrion' },

{ \_id: ObjectId("651043e906382ed3385d0b4d"), ename: 'Jamie' },

{ \_id: ObjectId("651043f306382ed3385d0b4e"), ename: 'Dany' },

{ \_id: ObjectId("651043fa06382ed3385d0b4f"), ename: 'Arya' },

{ \_id: ObjectId("6510441006382ed3385d0b51"), ename: 'Cersie' },

{ \_id: ObjectId("6510441906382ed3385d0b52"), ename: 'Dahrio' },

{ \_id: ObjectId("6510442206382ed3385d0b53"), ename: 'Theon' },

{ \_id: ObjectId("6510442806382ed3385d0b54"), ename: 'Bronn' }

]

company> db.emp.find({designation:{$nin:["Manager"]}},{ename:1}).count()

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**d) List the names of employees whose employee numbers are 1,3,7,9.**

company> db.emp.find({eid:{$in:[1,3,7,9]}},{ename:1})

[

{ \_id: ObjectId("65103e1006382ed3385d0b4b"), ename: 'Jon' },

{ \_id: ObjectId("651043e906382ed3385d0b4d"), ename: 'Jamie' },

{ \_id: ObjectId("6510441006382ed3385d0b51"), ename: 'Cersie' },

{ \_id: ObjectId("6510442206382ed3385d0b53"), ename: 'Theon' }

]

**e) List the names of all employees those having reading as a secound hobby.**

company> db.emp.find({"hobbies.1":"Reading"},{ename:1})

[ { \_id: ObjectId("6510442806382ed3385d0b54"), ename: 'Bronn' } ]

**f) List employee names for those who have joined between 30 June and 31 Dec 2015.**

company> db.emp.find({hiredate:{$lt:ISODate("2015-12-31T00:00:00Z"),$gt:ISODate("2015-06-31T00:00:00Z")}},{ename:1})

[ { \_id: ObjectId("651043e906382ed3385d0b4d"), ename: 'Jamie' } ]

**g) List the different designations in the company.company> db.emp.distinct("designation")**

[

'Analyst',

'CEO',

'Developer',

'Jr Developer',

'Lead Developer',

'Manager',

'Salesman',

'Sr manager' ]

**h) List the eid,ename,salary of all employees whose salary is less than 10000.**

company> db.emp.find({salary:{$lt:10000}},{eid:1,ename:1,salary:1})

[

{

\_id: ObjectId("651043e906382ed3385d0b4d"),

eid: 3,

ename: 'Jamie',

salary: 9000

},

{

\_id: ObjectId("6510442206382ed3385d0b53"),

eid: 9,

ename: 'Theon',

salary: 9000

}

]

**i) List the name and designation of the employee who works in production department.**

company> db.emp.find({department:"Production"},{ename:1,designation:1,department:1})

[

{

\_id: ObjectId("65103e1006382ed3385d0b4b"),

ename: 'Jon',

designation: 'Lead Developer',

department: 'Production'

},

{

\_id: ObjectId("651043fa06382ed3385d0b4f"),

ename: 'Arya',

designation: 'Developer',

department: 'Production'

},

{

\_id: ObjectId("6510442206382ed3385d0b53"),

ename: 'Theon',

designation: 'Jr Developer',

department: 'Production'

}

]

**j) List the all employees whose name start with "A" letter.**

company> db.emp.find({ename:/^A/})

[

{

\_id: ObjectId("651043fa06382ed3385d0b4f"),

eid: 5,

ename: 'Arya',

designation: 'Developer',

hiredate: ISODate("2017-10-17T00:00:00.000Z"),

salary: 10000,

hobbies: [ 'Painting', 'Coding' ],

department: 'Production'

}

]

**k) List the all employees whose name containing "sh" string.**

company> db.emp.find({ename:/sh/},{})

...........

**l) List the all employees whose names either start or end with “S”.**

company> db.emp.find({$or:[{ename:/^S/ }, {ename:/s$/}]},{})

[

{

\_id: ObjectId("6510440806382ed3385d0b50"),

eid: 6,

ename: 'Sansa',

designation: 'Manager',

hiredate: ISODate("2014-12-02T00:00:00.000Z"),

salary: 14000,

hobbies: [ 'Music', 'planning' ],

department: 'HR'

}

]

**m) List the names of employees whose department is not HR.**

company> db.emp.find({department:{$nin:["HR"]}},{ename:1,department:1})

[

{

\_id: ObjectId("65103e1006382ed3385d0b4b"),

ename: 'Jon',

department: 'Production'

},

{

\_id: ObjectId("651043e106382ed3385d0b4c"),

ename: 'Tirrion',

department: 'Testing'

},

{

\_id: ObjectId("651043e906382ed3385d0b4d"),

ename: 'Jamie',

department: 'Sales'

},

{

\_id: ObjectId("651043f306382ed3385d0b4e"),

ename: 'Dany',

department: 'Management'

},

{

\_id: ObjectId("651043fa06382ed3385d0b4f"),

ename: 'Arya',

department: 'Production'

},

{

\_id: ObjectId("6510441906382ed3385d0b52"),

ename: 'Dahrio',

department: 'Testing'

},

{

\_id: ObjectId("6510442206382ed3385d0b53"),

ename: 'Theon',

department: 'Production'

},

{

\_id: ObjectId("6510442806382ed3385d0b54"),

ename: 'Bronn',

department: 'Sales'

}

]

**n) List the number of employees working in sales department.**

company> db.emp.find({department:"Sales"})

[

{

\_id: ObjectId("651043e906382ed3385d0b4d"),

eid: 3,

ename: 'Jamie',

designation: 'Salesman',

hiredate: ISODate("2015-08-03T00:00:00.000Z"),

salary: 9000,

hobbies: [ 'Speaking', 'Planning' ],

department: 'Sales'

},

{

\_id: ObjectId("6510442806382ed3385d0b54"),

eid: 10,

ename: 'Bronn',

designation: 'Salesman',

hiredate: ISODate("2014-05-29T00:00:00.000Z"),

salary: 11000,

hobbies: [ 'Speaking', 'Reading' ],

department: 'Sales'

}

]

company> db.emp.find({department:"Sales"}).count()

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**o) List the number of designations available in the EMP collections.**

company> db.emp.find({},{designation:1})

[

{

\_id: ObjectId("65103e1006382ed3385d0b4b"),

designation: 'Lead Developer'

},

{ \_id: ObjectId("651043e106382ed3385d0b4c"), designation: 'Analyst' },

{

\_id: ObjectId("651043e906382ed3385d0b4d"),

designation: 'Salesman'

},

{ \_id: ObjectId("651043f306382ed3385d0b4e"), designation: 'CEO' },

{

\_id: ObjectId("651043fa06382ed3385d0b4f"),

designation: 'Developer'

},

{ \_id: ObjectId("6510440806382ed3385d0b50"), designation: 'Manager' },

{

\_id: ObjectId("6510441006382ed3385d0b51"),

designation: 'Sr manager'

},

{ \_id: ObjectId("6510441906382ed3385d0b52"), designation: 'Analyst' },

{

\_id: ObjectId("6510442206382ed3385d0b53"),

designation: 'Jr Developer'

},

{

\_id: ObjectId("6510442806382ed3385d0b54"),

designation: 'Salesman'

}

]

company> db.emp.find({},{designation:1}).count()

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**p) List the eid,ename,salary of all employees whose salary in between 10000 to 20000.**

company> db.emp.find({salary:{$lt:20000,$gt:10000}},{eid:1,ename:1,salary:1})

[

{

\_id: ObjectId("6510442806382ed3385d0b54"),

eid: 10,

ename: 'Bronn',

salary: 11000

},

{

\_id: ObjectId("6510441906382ed3385d0b52"),

eid: 8,

ename: 'Dahrio',

salary: 13000

},

{

\_id: ObjectId("6510440806382ed3385d0b50"),

eid: 6,

ename: 'Sansa',

salary: 14000

},

{

\_id: ObjectId("65103e1006382ed3385d0b4b"),

eid: 1,

ename: 'Jon',

salary: 15000

},

{

\_id: ObjectId("651043e106382ed3385d0b4c"),

eid: 2,

ename: 'Tirrion',

salary: 16000

},

{

\_id: ObjectId("6510441006382ed3385d0b51"),

eid: 7,

ename: 'Cersie',

salary: 17000

}

]

**q) List the eid,ename of all employees whose salary is gretter than or equal to 15000.**

company> db.emp.find({salary:{$gte:15000}},{eid:1,ename:1,salary:1})

[

{

\_id: ObjectId("65103e1006382ed3385d0b4b"),

eid: 1,

ename: 'Jon',

salary: 15000

},

{

\_id: ObjectId("651043e106382ed3385d0b4c"),

eid: 2,

ename: 'Tirrion',

salary: 16000

},

\_id: ObjectId("6510441006382ed3385d0b51"),

eid: 7,

ename: 'Cersie',

salary: 17000

},

{

\_id: ObjectId("651043f306382ed3385d0b4e"),

eid: 4,

ename: 'Dany',

salary: 25000

}

]

**r) List details of employees whose department is Sales and salary is 10000.**

company> db.emp.find({department:"Sales",salary:9000})

[

{

\_id: ObjectId("651043e906382ed3385d0b4d"),

eid: 3,

ename: 'Jamie',

designation: 'Salesman',

hiredate: ISODate("2015-08-03T00:00:00.000Z"),

salary: 9000,

hobbies: [ 'Speaking', 'Planning' ],

department: 'Sales'

}

]

**s) List the names of employees those having reading and painting hobbies.**

company> db.emp.find({hobbies:{$in:["Reading","Painting"]}},{ename:1})

[

{ \_id: ObjectId("65103e1006382ed3385d0b4b"), ename: 'Jon' },

{ \_id: ObjectId("651043e106382ed3385d0b4c"), ename: 'Tirrion' },

{ \_id: ObjectId("651043f306382ed3385d0b4e"), ename: 'Dany' },

{ \_id: ObjectId("651043fa06382ed3385d0b4f"), ename: 'Arya' },

{ \_id: ObjectId("6510442206382ed3385d0b53"), ename: 'Theon' },

{ \_id: ObjectId("6510442806382ed3385d0b54"), ename: 'Bronn' }

]

**t) List the first hobby of all employees from the employee collection.**

company> db.emp.find({},{hobbies:{$slice:1}})

[

{

\_id: ObjectId("65103e1006382ed3385d0b4b"),

eid: 1,

ename: 'Jon',

designation: 'Lead Developer',

hiredate: ISODate("2013-02-15T00:00:00.000Z"),

salary: 15000,

hobbies: [ 'Reading' ],

department: 'Production'

},

{

\_id: ObjectId("651043e106382ed3385d0b4c"),

eid: 2,

ename: 'Tirrion',

designation: 'Analyst',

hiredate: ISODate("2012-05-25T00:00:00.000Z"),

salary: 16000,

hobbies: [ 'Reading' ],

department: 'Testing'

},

{

\_id: ObjectId("651043e906382ed3385d0b4d"),

eid: 3,

ename: 'Jamie',

designation: 'Salesman',

hiredate: ISODate("2015-08-03T00:00:00.000Z"),

salary: 9000,

hobbies: [ 'Speaking' ],

department: 'Sales'

},

{

\_id: ObjectId("651043f306382ed3385d0b4e"),

eid: 4,

ename: 'Dany',

designation: 'CEO',

hiredate: ISODate("2009-06-03T00:00:00.000Z"),

salary: 25000,

hobbies: [ 'Reading' ],

department: 'Management'

},

{

\_id: ObjectId("651043fa06382ed3385d0b4f"),

eid: 5,

ename: 'Arya',

designation: 'Developer',

hiredate: ISODate("2017-10-17T00:00:00.000Z"),

salary: 10000,

hobbies: [ 'Painting' ],

department: 'Production'

},

{

\_id: ObjectId("6510440806382ed3385d0b50"),

eid: 6,

ename: 'Sansa',

designation: 'Manager',

hiredate: ISODate("2014-12-02T00:00:00.000Z"),

salary: 14000,

hobbies: [ 'Music' ],

department: 'HR'

},

{

\_id: ObjectId("6510441006382ed3385d0b51"),

eid: 7,

ename: 'Cersie',

designation: 'Sr manager',

hiredate: ISODate("2012-02-08T00:00:00.000Z"),

salary: 17000,

hobbies: [ 'Dancing' ],

department: 'HR'

},

{

\_id: ObjectId("6510441906382ed3385d0b52"),

eid: 8,

ename: 'Dahrio',

designation: 'Analyst',

hiredate: ISODate("2016-08-12T00:00:00.000Z"),

salary: 13000,

hobbies: [ 'Management' ],

department: 'Testing'

},

{

\_id: ObjectId("6510442206382ed3385d0b53"),

eid: 9,

ename: 'Theon',

designation: 'Jr Developer',

hiredate: ISODate("2017-08-19T00:00:00.000Z"),

salary: 9000,

hobbies: [ 'Reading' ],

department: 'Production'

},

{

\_id: ObjectId("6510442806382ed3385d0b54"),

eid: 10,

ename: 'Bronn',

designation: 'Salesman',

hiredate: ISODate("2014-05-29T00:00:00.000Z"),

salary: 11000,

hobbies: [ 'Speaking' ],

department: 'Sales'

}]

**u) List the names of all employees those having three different hobbies.**

company> db.emp.find({hobbies:{$size:3}})