NO SQL LAB – 3

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REGISTRATION NUMBER : 19BCE7230

CREATION OF COLLECTION -

QUESTIONS –

1. Display all the employee details

Output:

```
switched to db employee
{
        "_id" : ObjectId("62dc0f0241e17770cd8d9898"),
        "empno" : 7369,
        "ename" : "Smith",
        "job" : "Clerk",
        "hiredate" : "17-Dec-80",
        "mgr" : 7902,
        "sal" : 800,
        "comm" : null,
        "deptno" : 20
}
{
        "_id" : ObjectId("62dc0f0241e17770cd8d9899"),
        "empno" : 7499,
        "ename" : "Allen",
        "job" : "Salesman",
        "hiredate" : "20-Feb-81",
        "mgr" : 7698,
        "sal" : 800,
        "comm" : 1600,
        "deptno" : 30
```

```
{
        "_id" : ObjectId("62dc0f0241e17770cd8d989a"),
        "empno" : 7521,
        "ename" : "Ward",
        "job" : "Salesman",
        "hiredate" : "22-Feb-81",
        "mgr" : 7698,
        "sal" : 1250,
        "comm" : 500,
        "deptno" : 30
}
{
        "_id" : ObjectId("62dc0f0241e17770cd8d989b"),
        "empno" : 7566,
        "ename" : "Jones",
        "job" : "Manager",
        "hiredate" : "02-Apr-81",
        "mgr" : 7839,
        "sal" : 2975,
        "comm" : null,
        "deptno" : 20
}
{
        "_id" : ObjectId("62dc0f0241e17770cd8d989c"),
```

```
}
{
        "_id" : ObjectId("62dc0f0241e17770cd8d989d"),
        "empno" : 7698,
        "ename" : "Blake",
        "job" : "Manager",
        "hiredate" : "01-May-81",
        "mgr" : 7839,
        "sal" : 2450,
        "comm" : null,
        "deptno" : 10
}
{
        "_id" : ObjectId("62dc0f0241e17770cd8d989e"),
        "empno" : 7782,
        "ename" : "Clark",
        "job" : "Manager",
        "hiredate" : "09-Jun-81",
        "mgr" : 7839,
        "sal" : 2850,
        "comm" : null,
        "deptno" : 30
}
{
```

```
{
        "_id" : ObjectId("62dc0f0241e17770cd8d98a0"),
        "empno" : 7839,
        "ename" : "King",
        "job" : "President",
        "hiredate" : "17-Nov-81",
        "mgr" : null,
        "sal" : 5000,
        "comm" : null,
        "deptno" : 10
}
{
        "_id" : ObjectId("62dc0f0241e17770cd8d98a1"),
        "empno" : 7844,
        "ename" : "Turner",
        "job" : "Salesman",
        "hiredate" : "08-Sep-81",
        "mgr" : 7698,
        "sal" : 1500,
        "comm" : 0,
        "deptno" : 30
}
{
        "_id" : ObjectId("62dc0f0241e17770cd8d98a2"),
```

2. Display the ENAME of all the employees (Hint: use find() method)

```
4   db.employee_details.find({},{_id:0,empno:0,job:0,hiredate:0,mgr:0,sal:0 ,comm:0,deptno:
```

```
{ "ename" : "Smith" }
{ "ename" : "Allen" }
{ "ename" : "Ward" }
{ "ename" : "Jones" }
{ "ename" : "Martin" }
{ "ename" : "Blake" }
{ "ename" : "Clark" }
{ "ename" : "Scott" }
{ "ename" : "King" }
{ "ename" : "Turner" }
{ "ename" : "Adam" }
```

3. Display the ENAME, JOB of all the employees(Hint: use find() method)

```
19  db.employee_details.find({},{_id:0,empno:0,hiredate:0,mgr:0,sal:0,comm:0,deptno:0})
```

```
{ "ename" : "Smith", "job" : "Clerk" }
{ "ename" : "Allen", "job" : "Salesman" }
{ "ename" : "Ward", "job" : "Salesman" }
{ "ename" : "Jones", "job" : "Manager" }
{ "ename" : "Martin", "job" : "Salesman" }
{ "ename" : "Blake", "job" : "Manager" }
{ "ename" : "Clark", "job" : "Manager" }
{ "ename" : "Scott", "job" : "Analyst" }
{ "ename" : "King", "job" : "President" }
{ "ename" : "Turner", "job" : "Salesman" }
{ "ename" : "Adam", "job" : "Clerk" }
{ "ename" : "James", "job" : "Clerk" }
```

4. Display EMPNO, ENAME, JOB, HIREDATE of all the employees (Hint:use find() method)

```
db.employee_details.find({},{_id:0,mgr:0,sal:0,comm:0,deptno:0})
```

```
{ "empno" : 7369, "ename" : "Smith", "job" : "Clerk", "hiredate" :
{ "empno" : 7499, "ename" : "Allen", "job" : "Salesman", "hiredate
{ "empno" : 7521, "ename" : "Ward", "job" : "Salesman", "hiredate"
{ "empno" : 7566, "ename" : "Jones", "job" : "Manager", "hiredate"
{ "empno" : 7654, "ename" : "Martin", "job" : "Salesman", "hiredat
{ "empno" : 7698, "ename" : "Blake", "job" : "Manager", "hiredate"
{ "empno" : 7782, "ename" : "Clark", "job" : "Manager", "hiredate"
{ "empno" : 7788, "ename" : "Scott", "job" : "Analyst", "hiredate"
{ "empno" : 7839, "ename" : "King", "job" : "President", "hiredate
{ "empno" : 7844, "ename" : "Turner", "job" : "Salesman", "hiredat
{ "empno" : 7876, "ename" : "Adam", "job" : "Clerk", "hiredate" :
{ "empno" : 7900, "ename" : "James", "job" : "Clerk", "hiredate" :
```

5. Display the details of all the employees in the ascending order of EMPNO (Hint: use sort() method)

```
19  db.employee_details.find().sort({"empno":1})
```

```
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d0"), "empno" : 7369,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d1"), "empno" : 7499,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d2"), "empno" : 7521,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d3"), "empno" : 7566,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d4"), "empno" : 7654,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d5"), "empno" : 7698,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d6"), "empno" : 7782,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d7"), "empno" : 7788,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d8"), "empno" : 7839,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0d9"), "empno" : 7844,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0da"), "empno" : 7876,
{ "_id" : ObjectId("62dc19930fd43d9a7c6ed0db"), "empno" : 7900,
```

6. Display the details of all the employees in the ascending order of SAL (Hint: use sort() method)

```
19  db.employee_details.find().sort({"sal":1})
```

```
date" : "17-Dec-80", "mgr" : 7902, "sal" : 800, "comm" : null, "dept
iredate" : "20-Feb-81", "mgr" : 7698, "sal" : 800, "comm" : 1600, "c
date" : "17-Dec-80", "mgr" : 7902, "sal" : 800, "comm" : null, "dept
iredate" : "20-Feb-81", "mgr" : 7698, "sal" : 800, "comm" : 1600, "c
date" : "03-Dec-81", "mgr" : 7698, "sal" : 950, "comm" : null, "dept
date" : "03-Dec-81", "mgr" : 7698, "sal" : 950, "comm" : null, "dept
ate" : "23-May-87", "mgr" : 7788, "sal" : 1100, "comm" : null, "dept
ate" : "23-May-87", "mgr" : 7788, "sal" : 1100, "comm" : null, "dept
redate" : "22-Feb-81", "mgr" : 7698, "sal" : 1250, "comm" : 500, "de
hiredate" : "28-Sep-81", "mgr" : 7968, "sal" : 1250, "comm" : 1400,
redate" : "22-Feb-81", "mgr" : 7698, "sal" : 1250, "comm" : 500, "de
hiredate" : "28-Sep-81", "mgr" : 7968, "sal" : 1250, "comm" : 1400,
date" : "23-Jan-82", "mgr" : 7782, "sal" : 1300, "comm" : null, "de
date" : "23-Jan-82", "mgr" : 7782, "sal" : 1300, "comm" : null, "de
hiredate" : "08-Sep-81", "mgr" : 7698, "sal" : 1500, "comm" : 0, "de
hiredate" : "08-Sep-81", "mgr" : 7698, "sal" : 1500, "comm" : 0, "de
redate" : "01-May-81", "mgr" : 7839, "sal" : 2450, "comm" : null, "c
redate" : "01-May-81", "mgr" : 7839, "sal" : 2450, "comm" : null, "c
```

7. Display the details of all the employees in the ascending order of ENAME (Hint: use sort() method)

```
19  db.employee_details.find().sort({"ename":1})
```

```
ObjectId("62dc1bff86d5c7dfbaff2a81"), "empno" : 7876, "ename" : "Ad
ObjectId("62dc1bff86d5c7dfbaff2a78"), "empno" : 7499, "ename" : "Al
ObjectId("62dc1bff86d5c7dfbaff2a7c"), "empno" : 7698, "ename" : "Bl
ObjectId("62dc1bff86d5c7dfbaff2a7d"), "empno" : 7782, "ename" : "Cl
ObjectId("62dc1bff86d5c7dfbaff2a83"), "empno" : 7902, "ename" : "Fo
ObjectId("62dc1bff86d5c7dfbaff2a82"), "empno" : 7900, "ename" : "Ja
ObjectId("62dc1bff86d5c7dfbaff2a7a"), "empno" : 7566, "ename" : "Jo
ObjectId("62dc1bff86d5c7dfbaff2a7f"), "empno" : 7839, "ename" : "Ki
ObjectId("62dc1bff86d5c7dfbaff2a7b"), "empno" : 7654, "ename" : "Ma
ObjectId("62dc1bff86d5c7dfbaff2a84"), "empno" : 7934, "ename" : "Mi
ObjectId("62dc1bff86d5c7dfbaff2a7e"), "empno" : 7788, "ename" : "Sc
ObjectId("62dc1bff86d5c7dfbaff2a77"), "empno" : 7369, "ename" : "Sm
ObjectId("62dc1bff86d5c7dfbaff2a80"),  "empno"   7844   "ename"    Tu
```

8. Display the details of all the employees in the descending order of JOB (Hint: use sort() method)

```
20  db.employee_details.find().sort({"job":-1})
```

```
9, "ename" : "Allen", "job" : "Salesma
1, "ename" : "Ward", "job" : "Salesmar
4, "ename" : "Martin", "job" : "Salesr
4, "ename" : "Turner", "job" : "Salesr
9, "ename" : "King", "job" : "Presider
6, "ename" : "Jones", "job" : "Manager
8, "ename" : "Blake", "job" : "Manager
2, "ename" : "Clark", "job" : "Manager
9, "ename" : "Smith", "job" : "Clerk"
6, "ename" : "Adam", "job" : "Clerk",
0, "ename" : "James", "job" : "Clerk"
4. "ename" : "Miller", "job" : "Clerk"
```

9. Display the details of all the employees in the descending order of DEPTNO (Hint: use sort() method)

```
20  db.employee_details.find().sort({"deptno":-1})
```

```
ngr" : 7698, "sal" : 800, "comm" : 1600, "deptn
gr" : 7698, "sal" : 1250, "comm" : 500, "deptnc
'mgr" : 7968, "sal" : 1250, "comm" : 1400, "dep
gr" : 7839, "sal" : 2850, "comm" : null, "deptn
'mgr" : 7698, "sal" : 1500, "comm" : 0, "deptnc
' : 7698, "sal" : 950, "comm" : null, "deptno"
' : 7902, "sal" : 800, "comm" : null, "deptno"
gr" : 7839, "sal" : 2975, "comm" : null, "deptn
gr" : 7566, "sal" : 3000, "comm" : null, "deptn
: 7788, "sal" : 1100, "comm" : null, "deptno"
·" : 7566, "sal" : 3000, "comm" : null, "deptnc
```

10. Display the details of all the employees in the descending order of ENAME (Hint: use sort()
method)

```
22  db.employee_details.find().sort({"ename":-1})
```

```
"ename" : "Ward", "job" : "Salesman", "
"ename" : "Turner", "job" : "Salesman",
"ename" : "Smith", "job" : "Clerk", "hi
"ename" : "Smith", "job" : "Clerk", "hi
"ename" : "Scott", "job" : "Analyst", "
"ename" : "Miller", "job" : "Clerk", "h
"ename" : "Martin", "job" : "Salesman",
"ename" : "King", "job" : "President",
"ename" : "Jones", "job" : "Manager", "
"ename" : "James", "job" : "Clerk", "hi
"ename" : "Ford", "job" : "Analyst", "h
"ename" : "Clark", "job" : "Manager", "
"ename" : "Blake", "job" : "Manager", "
```

11. Display the sum of the salaries of all the employees (Hint: use aggregate() method)

```
6  db.employee_details.aggregate([{$group: {_id:null, sum_val:{$sum:"$sal"}}}])
7
8
```

```
{ "_id" : null, "sum_val" : 28225 }
```

12. Display the average salary of all the employees (Hint: use aggregate() method)

```
6  db.employee_details.aggregate([{$group: {_id:null, avg_val:{$avg:"$sal"}}}])
7
8
```

```
{ "_id" : null, "avg_val" : 1974.1379310344828 }
```

13. Display the maximum salary of all the employees (Hint: use aggregate() method)

```
6  db.employee_details.aggregate([{$group: {_id:null, max_val:{$max:"$sal"}}}])
7
8
```

```
{ "_id" : null, "max_val" : 5000 }
```

14. Display the minimum salary of all the employees (Hint: use aggregate() method)

```
6  db.employee_details.aggregate([{$group: {_id:null, min_val:{$min:"$sal"}}}])
7
```

```
{ "_id" : null, "min_val" : 800 }
```

15. Display the First three rows of the employee details (Hint: use limit()method)

```
6  db.employee_details.aggregate([{$limit: 3}]).pretty();
7
```

```
{
        "_id" : ObjectId("62dc1ebb862ba03f2ba89ce9"),
        "empno" : 7369,
        "ename" : "Smith",
        "job" : "Clerk",
        "hiredate" : "17-Dec-80",
        "mgr" : 7902,
        "sal" : 800,
        "comm" : null,
        "deptno" : 20
}
{
        "_id" : ObjectId("62dc1ebb862ba03f2ba89cea"),
        "empno" : 7499,
        "ename" : "Allen",
        "job" : "Salesman",
        "hiredate" : "20-Feb-81",
        "mgr" : 7698,
        "sal" : 800,
        "comm" : 1600,
        "deptno" : 30
}
{
        " id" : ObjectId("62dc1ebb862ba03f2ba89ceb"),
```

16. Display the First row of the employee details (Hint: use limit()method) .

```
6    db.employee_details.aggregate([{$limit: 1}]).pretty();
7
```

```
{
        "_id" : ObjectId("62da3cc07e869a9961d3608e"),
        "empno" : 7369,
        "ename" : "Smith",
        "job" : "Clerk",
        "hiredate" : "17-Dec-80",
        "mgr" : 7902,
        "sal" : 800,
        "comm" : null,
        "deptno" : 20
```

17. Display the employee details except first five rows(Hint: use skip() method)

```
5
6  db.employee_details.find().skip(5).pretty()
```

```
{
        "_id" : ObjectId("62dc0f97ab11436dd819226f"),
        "empno" : 7698,
        "ename" : "Blake",
        "job" : "Manager",
        "hiredate" : "01-May-81",
        "mgr" : 7839,
        "sal" : 2450,
        "comm" : null,
        "deptno" : 10
}
{
        "_id" : ObjectId("62dc0f97ab11436dd8192270"),
        "empno" : 7782,
        "ename" : "Clark",
        "job" : "Manager",
```

18. Display the employee details by skipping the first three rows(Hint: use skip() method)

```
6
7  db.employee_details.find().skip(3).pretty()
```

```
{
        "_id" : ObjectId("62dc12e2e1725f73b3fb2453"),
        "empno" : 7566,
        "ename" : "Jones",
        "job" : "Manager",
        "hiredate" : "02-Apr-81",
        "mgr" : 7839,
        "sal" : 2975,
        "comm" : null,
        "deptno" : 20
}
{
        "_id" : ObjectId("62dc12e2e1725f73b3fb2454"),
        "empno" : 7654,
        "ename" : "Martin",
        "job" : "Salesman",
```

19. 19 . Display the employee details by skipping the first three rows(Hint: use skip() method)

```
6
7  db.employee_details.find().skip(3).pretty()
```

```
{
        "_id" : ObjectId("62dc12e2e1725f73b3fb2453"),
        "empno" : 7566,
        "ename" : "Jones",
        "job" : "Manager",
        "hiredate" : "02-Apr-81",
        "mgr" : 7839,
        "sal" : 2975,
        "comm" : null,
        "deptno" : 20
}
{
        "_id" : ObjectId("62dc12e2e1725f73b3fb2454"),
        "empno" : 7654,
        "ename" : "Martin",
        "job" : "Salesman",
```

20. Display only the eighth document(row) of the employees (Hint:uselimit(),skip()methods)

```
5
6  db.employee_details.find().skip(7).limit(1)
7
```

```
"_id" : ObjectId("62dc1e42b68f637b271c3435"), "empno" : 7782, "ena
```

21. Display all the employee details whose salary is greater than 1500 (Hint: use find() method)

```
6  db.employee_details.find({sal:{$gt:1500}})
7
```

```
edate" : "02-Apr-81", "mgr" : 7839, "sal" : 2975, "comm" : null, "
edate" : "01-May-81", "mgr" : 7839, "sal" : 2450, "comm" : null, "
edate" : "09-Jun-81", "mgr" : 7839, "sal" : 2850, "comm" : null, "
edate" : "19-Apr-87", "mgr" : 7566, "sal" : 3000, "comm" : null, "
iredate" : "17-Nov-81", "mgr" : null, "sal" : 5000, "comm" : null,
```

22. Display all the employee details whose salary is lesser than 1200 (Hint: use find() method)

```
7  db.employee_details.find({sal:{$lt:1200}})
```

```
edate" : "17-Dec-80", "mgr" : 7902, "sal" : 800, "comm" : null, "dep
iredate" : "20-Feb-81", "mgr" : 7698, "sal" : 800, "comm" : 1600, '
late" : "23-May-87", "mgr" : 7788, "sal" : 1100, "comm" : null, "dep
edate" : "03-Dec-81", "mgr" : 7698, "sal" : 950, "comm" : null, "dep
```

23. Display all the employee details whose salary is equal to2450 (Hint: use find() method)

```
7  db.employee_details.find({sal:{$eq:2450}})
```

```
iredate" : "01-May-81", "mgr" : 7839, "sal" : 2450, "comm" : null, '
```

24. Display all the employee details whose salary is greater than 2500 and job is manager (Hint:use find() method)

```
6
7  db.employee_details.find({$and : [{sal:{$gt:2500}}, {job:"Manager"}]})
```

```
: ObjectId("62dc1ec156abcd86ee6c5c0e"), "empno" : 7566, "ename" : "
: ObjectId("62dc1ec156abcd86ee6c5c11"), "empno" : 7782, "ename" : "
```

```
"job" : "Manager", "hiredate" : "02-Apr-81", "mgr" : 7839, "sal" :
"job" : "Manager", "hiredate" : "09-Jun-81", "mgr" : 7839, "sal" :
```

25. Display all the employee details whose salary is lesser than 1500 or job is clerk (Hint:use find()
    method)

```
7   db.employee_details.find({$or : [{sal:{$lt:1500}}, {job:"Clerk"}]})
```

```
{ "_id" : ObjectId("62dc1ebb862ba03f2ba89ce9"), "empno" : 7369, "e
{ "_id" : ObjectId("62dc1ebb862ba03f2ba89cea"), "empno" : 7499, "e
{ "_id" : ObjectId("62dc1ebb862ba03f2ba89ceb"), "empno" : 7521, "e
{ "_id" : ObjectId("62dc1ebb862ba03f2ba89ced"), "empno" : 7654, "e
{ "_id" : ObjectId("62dc1ebb862ba03f2ba89cf3"), "empno" : 7876, "e
{ "_id" : ObjectId("62dc1ebb862ba03f2ba89cf4"), "empno" : 7900, "e
{ "_id" : ObjectId("62dc1ebb862ba03f2ba89cf6"), "empno" : 7934, "e
```

```
"ename" : "Smith", "job" : "Clerk", "hiredate" : "17-Dec-80", "mgr
"ename" : "Allen", "job" : "Salesman", "hiredate" : "20-Feb-81", "
"ename" : "Ward", "job" : "Salesman", "hiredate" : "22-Feb-81", "m
"ename" : "Martin", "job" : "Salesman", "hiredate" : "28-Sep-81",
"ename" : "Adam", "job" : "Clerk", "hiredate" : "23-May-87", "mgr"
"ename" : "James", "job" : "Clerk", "hiredate" : "03-Dec-81", "mgr
"ename" : "Miller", "job" : "Clerk", "hiredate" : "23-Jan-82", "mg
```

```
ate" : "17-Dec-80", "mgr" : 7902, "sal" : 800, "comm" : null, "dept
redate" : "20-Feb-81", "mgr" : 7698, "sal" : 800, "comm" : 1600, "d
edate" : "22-Feb-81", "mgr" : 7698, "sal" : 1250, "comm" : 500, "de
iredate" : "28-Sep-81", "mgr" : 7968, "sal" : 1250, "comm" : 1400,
e" : "23-May-87", "mgr" : 7788, "sal" : 1100, "comm" : null, "dept
ate" : "03-Dec-81", "mgr" : 7698, "sal" : 950, "comm" : null, "dept
date" : "23-Jan-82", "mgr" : 7782, "sal" : 1300, "comm" : null, "de
```