Assignment -1

1.Create an Employee collection with mentioned fields Employee
(eno,ename,salary,desig,dept:{deptno,deptname,location},

 project:{pname,hrs})

```
db.createCollection('employee');
```

2.Insert 10 documents in Employee collection

```
db.Employee.insertMany([
 {
   eno: 101,
   ename: "Rahul Sharma",
   salary: 55000,
   desig: "Developer",
   dept: { deptno: 10, deptname: "IT", location: "Pune" },
   project: { pname: "Website Upgrade", hrs: 120 }
 },
 {
   eno: 102,
   ename: "Sneha Patil",
   salary: 48000,
   desig: "Tester",
   dept: { deptno: 20, deptname: "QA", location: "Mumbai" },
   project: { pname: "App Testing", hrs: 100 }
 },
 {
   eno: 103,
   ename: "Amit Joshi",
   salary: 60000,
   desig: "Analyst",
   dept: { deptno: 30, deptname: "Business", location: "Pune" },
   project: { pname: "Data Analysis", hrs: 150 }
 },
 {
   eno: 104,
   ename: "Priya Desai",
   salary: 52000,
   desig: "Developer",
   dept: { deptno: 10, deptname: "IT", location: "Pune" },
   project: { pname: "Inventory System", hrs: 110 }
 },
 {
   eno: 105,
   ename: "Vikram Kale",
   salary: 75000,
   desig: "Manager",
```

```
    dept: { deptno: 40, deptname: "HR", location: "Nashik" },
    project: { pname: "Recruitment Drive", hrs: 90 }
  },
  {
    eno: 106,
    ename: "Kiran More",
    salary: 47000,
    desig: "Support Engineer",
    dept: { deptno: 50, deptname: "Support", location: "Nagpur" },
    project: { pname: "Customer Support", hrs: 130 }
  },
  {
    eno: 107,
    ename: "Pooja Naik",
    salary: 68000,
    desig: "Team Lead",
    dept: { deptno: 10, deptname: "IT", location: "Pune" },
    project: { pname: "AI Chatbot", hrs: 140 }
  },
  {
    eno: 108,
    ename: "Rohit Patil",
    salary: 50000,
    desig: "Tester",
    dept: { deptno: 20, deptname: "QA", location: "Mumbai" },
    project: { pname: "Automation Suite", hrs: 95 }
  },
  {
    eno: 109,
    ename: "Neha Kulkarni",
    salary: 72000,
    desig: "System Analyst",
    dept: { deptno: 30, deptname: "Business", location: "Pune" },
    project: { pname: "ERP Integration", hrs: 160 }
  },
  {
    eno: 110,
    ename: "Sagar Jadhav",
    salary: 45000,
    desig: "Intern",
    dept: { deptno: 10, deptname: "IT", location: "Pune" },
    project: { pname: "Website Maintenance", hrs: 80 }
  }
])
```

Output :

```
{
 acknowledged: true,
 insertedIds: {
  '0': ObjectId("652a1c1234a9bcd1a1111111"),
  '1': ObjectId("652a1c1234a9bcd1a2222222"),
  '2': ObjectId("652a1c1234a9bcd1a3333333"),
  '3': ObjectId("652a1c1234a9bcd1a4444444"),
  '4': ObjectId("652a1c1234a9bcd1a5555555"),
  '5': ObjectId("652a1c1234a9bcd1a6666666"),
  '6': ObjectId("652a1c1234a9bcd1a7777777"),
  '7': ObjectId("652a1c1234a9bcd1a8888888"),
  '8': ObjectId("652a1c1234a9bcd1a9999999"),
  '9': ObjectId("652a1c1234a9bcd1a1010101")
 }
}
```

Assignment -2

1) **Display all the documents from employee collection.**

```
db.Employee.find()
db.Employee.find().pretty()
```

Output:

```
{
  "_id" : ObjectId("670747a9c1234ef123456789"),
  "eno" : 101,
  "ename" : "Rahul",
  "salary" : 55000,
  "desig" : "Developer",
  "dept" : { "deptno": 10, "deptname": "IT", "location": "Pune" },
  "project" : { "pname": "AI Tool", "hrs": 30 }
}
{
  "_id" : ObjectId("670747a9c1234ef12345678a"),
  "eno" : 102,
  "ename" : "Sneha",
  "salary" : 60000,
  "desig" : "Analyst",
  "dept" : { "deptno": 20, "deptname": "Finance", "location": "Mumbai" },
  "project" : { "pname": "DataApp", "hrs": 25 }
}
...
```

Assignment - 3

1) Display all employees whose name starts with "S" .

```
db.Employee.find({ ename: { $regex: /^S/, $options: "i" } })
```

Output:

```
{

  "_id" : ObjectId("670748a9c1234ef12345678b"),

  "eno" : 102,

  "ename" : "Sneha",

  "salary" : 60000,

  "desig" : "Analyst",

  "dept" : { "deptno": 20, "deptname": "Finance", "location": "Mumbai" },

  "project" : { "pname": "DataApp", "hrs": 25 }

}

{

  "_id" : ObjectId("670748a9c1234ef12345678c"),

  "eno" : 106,

  "ename" : "Sameer",

  "salary" : 48000,

  "desig" : "Tester",

  "dept" : { "deptno": 10, "deptname": "IT", "location": "Pune" },

  "project" : { "pname": "CRM", "hrs": 20 }

}
```

2) Display all Employee with the designation "Manager"

db.Employee.find({ desig: "Manager" })

Output:{

    "_id" : ObjectId("670749a9c1234ef123456781"),

    "eno" : 103,

    "ename" : "Suresh",

    "salary" : 75000,

    "desig" : "Manager",

    "dept" : { "deptno" : 30, "deptname" : "HR", "location" : "Pune" },

    "project" : { "pname" : "RecruitPro", "hrs" : 35 }

    }

    {

    "_id" : ObjectId("670749a9c1234ef123456782"),

    "eno" : 108,

    "ename" : "Ramesh",

    "salary" : 68000,

    "desig" : "Manager",

    "dept" : { "deptno" : 20, "deptname" : "Finance", "location" : "Mumbai" },

    "project" : { "pname" : "FinTrack", "hrs" : 40 }

    }

3) Display all employees with salary >50000 and salary

```
db.Employee.find({ salary: { $gt: 50000, $lt: 80000 } })
```

Output:

```
{

  "_id" : ObjectId("67074aa9c1234ef123456783"),

  "eno" : 101,

  "ename" : "Rahul",

  "salary" : 55000,

  "desig" : "Developer",

  "dept" : { "deptno" : 10, "deptname" : "IT", "location" : "Pune" },

  "project" : { "pname" : "AI Tool", "hrs" : 30 }

}

{

  "_id" : ObjectId("67074aa9c1234ef123456784"),

  "eno" : 104,

  "ename" : "Sneha",

  "salary" : 60000,

  "desig" : "Analyst",

  "dept" : { "deptno" : 20, "deptname" : "Finance", "location" : "Mumbai" },

  "project" : { "pname" : "DataApp", "hrs" : 25 }

}

{  "_id" : ObjectId("67074aa9c1234ef123456785"),

  "eno" : 108,

  "ename" : "Ramesh",

  "salary" : 68000,

  "desig" : "Manager",

  "dept" : { "deptno" : 20, "deptname" : "Finance", "location" : "Mumbai" },

  "project" : { "pname" : "FinTrack", "hrs" : 40 }

}
```

Assignment – 4

1) **Update no. of hrs to 7 for pname=_Sneha_**

```
db.Employee.updateOne(
 { ename: "Sneha" },
 { $set: { "project.hrs": 7 } }
)
```

Output:

```
{

"acknowledged" : true,

"matchedCount" : 1,

"modifiedCount" : 1

}
```

2) **Add bonus Rs. 5000 for all employees with salary >50000 and salary <150000**

```
db.Employee.updateMany

(

 { salary: { $gt: 50000, $lt: 150000 }

 { $inc: { salary: 5000 } }

)
```

Output:

```
{

 "acknowledged" : true,

 "matchedCount" : 7,

 "modifiedCount" : 7

}
```