

Assignment 2

1. All Employee's with the desg as 'CLERK' are now called as (AO) Administrative Officers.
Update the Employee collection for this

```
db.Employee.update({Desg:"Clerk"},{$set:{Desg:"Administrative Officers"}},{multi:true});
```

```
> db.Employee.update({Desg:"Clerk"},{$set:{Desg:"Administrative Officers"}},{multi:true});
WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" : 0 })
> db.Employee.find().pretty();
{
  "_id" : ObjectId("64428cb4de6779ecec9d064e"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Satish",
    "num" : 111
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    }
  ]
}
{
  "_id" : ObjectId("64428ccd6779ecec9d064f"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 40000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",
    "num" : 222
  }
}
```

2. Change the number of hours for project-1 to 5 for all employees with designation analyst

```
db.Employee.update({Desg:"Analyst"},{$set:{project.0.Hrs:5}},{multi:true})
```

```
> db.Employee.find({Desg:"Analyst"}).pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 5
    }
  ],
  "bonus" : 2500
}
{
  "_id" : ObjectId("6444fa780442c9d3007b0d01"),
  "empno" : 104,
  "ename" : "Mushkan Gupta",
  "sal" : 50000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Pune"
  }
}
```

```
}  
{  
  "_id" : ObjectId("6444fa780442c9d3007b0d01"),  
  "empno" : 104,  
  "ename" : "Mushkan Gupta",  
  "sal" : 50000,  
  "dept" : {  
    "deptno" : 12,  
    "dname" : "Hr",  
    "dloc" : "Pune"  
  },  
  "Desg" : "Analyst",  
  "mgr" : {  
    "name" : "Tushar",  
    "num" : 3333  
  },  
  "project" : [  
    {  
      "name" : "Project-1",  
      "Hrs" : 5  
    },  
    {  
      "name" : "Project-2",  
      "Hrs" : 5  
    },  
    {  
      "name" : "Project-3",  
      "Hrs" : 5  
    }  
  ],  
  "bonus" : 2000  
}  
>
```

3. Add 2 projects project-3 and project-4 for employee whose name starts with "Deep" with 2 hrs

```
db.Employee.update({ename:/^Deep/},{ $push:{ "project":{ $each:[{name:"Project-3",Hrs:2},{name:"Project-4",Hrs:2}]}},{multi:true}}
```

```
> db.Employee.update({ename:/^Deep/},{ $push:{ "project":{ $each:[{name:"Project-3",Hrs:2},{name:"Project-4",Hrs:2}]}},{multi:true}}
WriteResult({ "nMatched" : 2, "nUpserted" : 0, "nModified" : 2 })
> db.Employee.find({ename:/^Deep/}).pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 2
    },
    {
      "name" : "Project-4",
      "Hrs" : 2
    }
  ],
  "bonus" : 2500
}
{
  "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
  "empno" : 103,
  "ename" : "Deepak Verma",
  "sal" : 30000,
  "dept" : {
    "deptno" : 11,
    "dname" : "Developer",
    "dloc" : "Mumbai"
  },
}
```

```
{
  "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
  "empno" : 103,
  "ename" : "Deepak Verma",
  "sal" : 30000,
  "dept" : {
    "deptno" : 11,
    "dname" : "Developer",
    "dloc" : "Mumbai"
  },
  "Desg" : "Sales Department",
  "mgr" : {
    "name" : "Revti",
    "num" : "333"
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    },
    {
      "name" : "Project-3",
      "Hrs" : 2
    },
    {
      "name" : "Project-4",
      "Hrs" : 2
    }
  ],
  "bonus" : 3500,
  "hobbies" : [
    "Singing",
    "Cooking"
  ]
}
```

4. Add bonus rs 2000 for all employees with salary > 50000

```
db.Employee.update({sal:{gt:50000}},{$inc:{sal:2000}})
```

```
> db.Employee.update({sal:{gt:50000}},{$inc:{sal:2000}})
WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" : 0 })
> db.etest.find({sal:{gt:50000}})
{ "_id" : ObjectId("6444fadc0442c9d3007b0d06"), "empno" : 104, "ename" : "Mushkan Gupta", "sal" : 62000, "dept" : { "deptno" : 12, "dname" : "Hr", "dloc" : "Pune"}, "num" : 111, "project" : [ { "name" : "Project-1", "Hrs" : 4 }, { "name" : "Project-2", "Hrs" : 5 } ], "bonus" : 1000 }
> db.etest.find({sal:{gt:50000}}).pretty();
{
  "_id" : ObjectId("6444fadc0442c9d3007b0d06"),
  "empno" : 104,
  "ename" : "Mushkan Gupta",
  "sal" : 62000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Pune"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Satish",
    "num" : 111
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 5
    }
  ],
  "bonus" : 1000
}
```

5. Add bonus rs 1500 if salary <50000 and > 30000

```
db.Employee.update({sal:{$gt:30000,$lt:50000}},{$inc:{bonus:1500}},{multi:true});
```

```
> db.Employee.update({sal:{$gt:30000,$lt:50000}},{$inc:{bonus:1500}},{multi:true});
WriteResult({ "nMatched" : 3, "nUpserted" : 0, "nModified" : 3 })
> db.Employee.find().pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Satish",
    "num" : 111
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    }
  ],
  "bonus" : 1500
}
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
```

```

> db.Employee.find({sal:{$gt:30000,$lt:50000}}).pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Satish",
    "num" : 111
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    }
  ],
  "bonus" : 1500
}
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 40000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",
    "num" : 222
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",

```



```

    "project" : [
      {
        "name" : "Project-1",
        "Hrs" : 5
      },
      {
        "name" : "Project-2",
        "Hrs" : 3
      }
    ],
    "bonus" : 3000
  }
}
{
  "_id" : ObjectId("6444fa7f0442c9d3007b0d02"),
  "empno" : 105,
  "ename" : "Khushi Verma",
  "sal" : 40000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Rajan",
    "num" : 222
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 3
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    }
  ],
  "bonus" : 4500
}
>

```

6. increment bounus by 1000 for all employees if salary <=30000

```
db.Employee.update({sal:{$lt:30000}},{$inc:{bonus:1000}},{multi:true});
```

```
    "project" : [
      {
        "name" : "Project-1",
        "Hrs" : 5
      },
      {
        "name" : "Project-2",
        "Hrs" : 2
      }
    ],
    "bonus" : 1500
  }
}
> db.Employee.find({sal:{$lt:30000}},{$inc:{bonus:1000}}).pretty();
Error: error: {
  "ok" : 0,
  "errmsg" : "FieldPath field names may not start with '$'. Consider using $getField or $setField.",
  "code" : 16410,
  "codeName" : "Location16410"
}
> db.Employee.update({sal:{$lt:30000}},{$inc:{bonus:1000}},{multi:true});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Employee.find({sal:{$lt:30000}}).pretty();
{
  "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
  "empno" : 103,
  "ename" : "Deepak Verma",
  "sal" : 25000,
  "dept" : {
    "deptno" : 11,
    "dname" : "Developer",
    "dloc" : "Mumbai"
  },
  "Desg" : "Assitant",
  "mgr" : {
    "name" : "Revti",
    "num" : 333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    }
  ],
  "bonus" : 2500
}
>
```

7. Change manager name to Tushar for all employees whose manager is currently "satish" And manager number to 3333

```
db.Employee.update({"mgr.name":"Satish"},{$set:{"mgr.name":"Tushar","mgr.num":3333},{multi:true});
```

```
> db.Employee.update({"mgr.name":"Satish"},{$set:{"mgr.name":"Tushar","mgr.num":3333},{multi:true});
WriteResult({ "nMatched" : 2, "nUpserted" : 0, "nModified" : 2 })
> db.Employee.find({"mgr.name":"Tushar"}).pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    }
  ],
  "bonus" : 1500
}
{
  "_id" : ObjectId("6444fa780442c9d3007b0d01"),
  "empno" : 104,
  "ename" : "Mushkan Gupta",
  "sal" : 50000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Pune"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
```

8. Increase salary of all employees from "purchase department" by 15000

```
db.Employee.update({"dept.dname":"Purchase Department"},{$inc:{sal:15000}},{multi:true});
```

```
> db.Employee.update({"dept.dname":"Purchase Department"},{$inc:{sal:15000}},{multi:true});
WriteResult({ "nMatched" : 2, "nUpserted" : 0, "nModified" : 2 })
> db.Employee.find({"dept.dname":"Purchase Department"}).pretty();
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 55000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 3
    }
  ],
  "bonus" : 3000
}
{
  "_id" : ObjectId("6444fa7f0442c9d3007b0d02"),
  "empno" : 105,
  "ename" : "Khushi Verma",
  "sal" : 55000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
  "project" : [
    {
      "name" : "Project-1",
```

9. Decrease number of hrs by 2 for all employees who are working on project-2

```
db.Employee.updateMany({"project.name":"Project-2"},{$inc:{"project.$.Hrs":-2}})
```

```
> db.Employee.find().pretty()
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 6
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2500,
  "hobbies" : [
    "Cricket"
  ]
}
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 55000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
```

```

    "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
    "empno" : 103,
    "ename" : "Deepak Verma",
    "sal" : 30000,
    "dept" : {
      "deptno" : 11,
      "dname" : "Developer",
      "dloc" : "Mumbai"
    },
    "Desg" : "Sales Department",
    "mgr" : {
      "name" : "Revti",
      "num" : "333"
    },
    "project" : [
      {
        "name" : "Project-1",
        "Hrs" : 6
      },
      {
        "name" : "Project-2",
        "Hrs" : 2
      },
      {
        "name" : "Project-3",
        "Hrs" : 10
      },
      {
        "name" : "Project-4",
        "Hrs" : 2
      }
    ],
    "bonus" : 3500,
    "hobbies" : [
      "Cooking"
    ],
    "skillset" : [
      "Java",
      "C++"
    ]
  },
  {
    "_id" : ObjectId("6444fa780442c9d3007b0d01"),
    "empno" : 104,
    "ename" : "Mushkan Gupta",
    "sal" : 50000,
    "dept" : {
      "deptno" : 12,
      "dname" : "Hr",
      "dloc" : "Pune"
    }
  }
}

```

10. Delete project-2 from all employee document if they are working on the project for 4 hrs.

```
db.Employee.update({"project.name":"Project-2","project.Hrs":4},{pull:{project:{name:"Project-2"}}},{multi:true})
```

```
> db.Employee.update({"project.name":"Project-2","project.Hrs":4},{pull:{project:{name:"Project-2"}}},{multi:true})
WriteResult({ "nMatched" : 4, "nUpserted" : 0, "nModified" : 4 })
> db.Employee.find().pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 51000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Senior Programmer",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2000,
  "hobbies" : [
    "Cricket"
  ]
}
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 66000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
  "project" : [
```

11. . Change the salary of employees to 10000 only if their salary is < 10000

```
db.Employee.update({sal:{$lt:10000}},{$set:{sal:10000}},{multi:true});
```

```
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Employee.find({sal:{$lt:10000}}).pretty();
{
  "_id" : ObjectId("6444fa7f0442c9d3007b0d02"),
  "empno" : 105,
  "ename" : "Khushi Verma",
  "sal" : 5000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Clerk",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 3
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    }
  ],
  "bonus" : 4500
}
> db.Employee.update({sal:{$lt:10000}},{$set:{sal:5000}},{multi:true});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 0 })
> db.Employee.update({sal:{$lt:10000}},{$set:{sal:10000}},{multi:true});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```



```

    ],
    "bonus" : 1000
}
{
  "_id" : ObjectId("6444fa7f0442c9d3007b0d02"),
  "empno" : 105,
  "ename" : "Khushi Verma",
  "sal" : 10000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Clerk",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 3
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    }
  ],
  "bonus" : 4500
}

```

12. Increase bonus of all employees by 500 if the bonus is <2000 or their salary is < 20000 or if employee belong to sales department

```
db.Employee.find({$or:[{bonus:{$lt:2000}},{sal:{$lt:20000}},{Desg:"Sales Department"}]}).pretty();
```

```
> db.Employee.updateMany({$or:[{bonus:{$lt:2000}},{sal:{$lt:20000}},{Desg:"Sales Department"}]},{$inc:{bonus:500}})
{ "acknowledged" : true, "matchedCount" : 4, "modifiedCount" : 4 }
> db.Employee.find({$or:[{bonus:{$lt:2000}},{sal:{$lt:20000}},{Desg:"Sales Department"}]}).pretty();
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 66000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 6
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 1500,
  "hobbies" : [
    "Cooking"
  ]
}
{
  "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
  "empno" : 103,
  "ename" : "Deepak Verma",
  "sal" : 41000,
  "dept" : {
    "deptno" : 11,
    "dname" : "Developer",
    "dloc" : "Mumbai"
  },
  "Desg" : "Sales Department",
  "mgr" : {
    "name" : "Revti",

```

```

    "project" : [
      {
        "name" : "Project-1",
        "Hrs" : 6
      },
      {
        "name" : "Project-2",
        "Hrs" : 2
      },
      {
        "name" : "Project-3",
        "Hrs" : 10
      },
      {
        "name" : "Project-4",
        "Hrs" : 2
      }
    ],
    "bonus" : 3000,
    "hobbies" : [
      "Cooking"
    ],
    "skillset" : [
      "Java",
      "C++"
    ]
  }
}

{
  "_id" : ObjectId("6444fa7f0442c9d3007b0d02"),
  "empno" : 105,
  "ename" : "Khushi Verma",
  "sal" : 21000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Clerk",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 6
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    }
  ]
}

```

13. Add 2 new project at position 2 for all employees with designation analyst or salary is equal to either 30000 or 33000 or 55000

```
db.Employee.update({$or:[{Desg:"Analyst"},{sal:{$in:[30000,33000,55000]}}]},{$push:{"project":{
name:"Project-3",Hrs:5}}},{multi:true})
```

```
> db.Employee.update({$or:[{Desg:"Analyst"},{sal:{$in:[30000,33000,55000]}}]},{$push:{"project":{name:"Project-3",Hrs:5}}},{multi:true})
WriteResult({ "nMatched" : 4, "nUpserted" : 0, "nModified" : 4 })
> db.Employee.find().pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 5
    }
  ],
  "bonus" : 2500
}

{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 55000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
}
```

```

    "project" : [
      {
        "name" : "Project-1",
        "Hrs" : 5
      },
      {
        "name" : "Project-2",
        "Hrs" : 3
      },
      {
        "name" : "Project-3",
        "Hrs" : 5
      }
    ],
    "bonus" : 2000
  },
  {
    "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
    "empno" : 103,
    "ename" : "Deepak Verma",
    "sal" : 30000,
    "dept" : {
      "deptno" : 11,
      "dname" : "Developer",
      "dloc" : "Mumbai"
    },
    "Desg" : "Sales Department",
    "mgr" : {
      "name" : "Revti",
      "num" : "333"
    },
    "project" : [
      {
        "name" : "Project-1",
        "Hrs" : 5
      },
      {
        "name" : "Project-2",
        "Hrs" : 2
      },
      {
        "name" : "Project-3",
        "Hrs" : 5
      }
    ],
    "bonus" : 3500
  },
  {
    "_id" : ObjectId("6444fa780442c9d3007b0d01"),
    "empno" : 104,

```

14. Delete last project of all employees with department name is "HR" and if the location is Mumbai

```
db.Employee.updateOne({"dept.dname":'Hr',"dept.dloc":'Mumbai'},{$pop:{project:1}});
```

```
> db.Employee.updateOne({"dept.dname":'Hr',"dept.dloc":'Mumbai'},{$pop:{project:1}});
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.Employee.find().pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    }
  ],
  "bonus" : 2500
}
```

15. Change designation of all employees to senior programmer if they are working on name:"Project-1" for 4 hrs

```
db.Employee.find({project:{$elemMatch:{name:"Project-1",Hrs:4}}}).pretty()
```

```
> db.Employee.updateMany({project:{$elemMatch:{name:"Project-1",Hrs:4}}},{ $set:{Desg:"Senior Programmer"}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.Employee.find({project:{$elemMatch:{name:"Project-1",Hrs:4}}}).pretty()
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Senior Programmer",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2500,
  "hobbies" : [
    "Cricket"
  ]
}
>
```

16. Add list of hobbies in all employees document whose manager is Rajan or Revati

```
db.Employee.update({"mgr.name":{$in:['Revti','Rajan']}},{ $set:{hobbies:['Singing','Cooking']}},{multi:true})
```

```
> db.etest.update({"mgr.name":{$in:['Revti','Rajan']}},{ $set:{aaa:[666,889]}},{multi:true})
WriteResult({ "nMatched" : 2, "nUpserted" : 0, "nModified" : 2 })
> db.etest.find({"mgr.name":{$in:['Revti','Rajan']}}).pretty();
{
  "_id" : ObjectId("64473dda8a5e5c82779b8a63"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 40000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Clerk",
  "mgr" : {
    "name" : "Rajan",
    "num" : 222
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 3
    }
  ],
  "bonus" : 1500,
  "zzz" : 666,
  "aaa" : [
    666,
    889
  ]
}
{
  "_id" : ObjectId("64473de38a5e5c82779b8a64"),
  "empno" : 103,
  "ename" : "Deepak Verma",
  "sal" : 25000,
  "dept" : {
    "deptno" : 11,
    "dname" : "Developer",
    "dloc" : "Mumbai"
  },
  "Desg" : "Assitant",
  "mgr" : {
    "name" : "Revti",
    "num" : 333
  }
}
```



```

    },
    "project" : [
        {
            "name" : "Project-1",
            "Hrs" : 5
        },
        {
            "name" : "Project-2",
            "Hrs" : 2
        },
        {
            "name" : "Project-3",
            "Hrs" : 5
        }
    ],
    "bonus" : 3500,
    "hobbies" : [
        "Singing",
        "Cooking"
    ]
}
{
    "_id" : ObjectId("6444fa7f0442c9d3007b0d02"),
    "empno" : 105,
    "ename" : "Khushi Verma",
    "sal" : 10000,
    "dept" : {
        "deptno" : 10,
        "dname" : "Purchase Department",
        "dloc" : "Mumbai"
    },
    "Desg" : "Clerk",
    "mgr" : {
        "name" : "Rajan",
        "num" : "222"
    },
    "project" : [
        {
            "name" : "Project-1",
            "Hrs" : 3
        },
        {
            "name" : "Project-2",
            "Hrs" : 4
        }
    ],
    "bonus" : 1500,
    "hobbies" : [
        "Singing",
        "Cooking"
    ]
}

```

17. Add list of skillset in all employee documents who are working on project-4 for 3 hrs or on project-3 for 4 hrs

```
db.Employee.update({project:{$elemMatch:{$in:[{"name":"Project-3","Hrs":4},{ "name":"Project-4","Hrs":3}]}}},{ $set:{skillset:["Java","C++"]}}, {multi:true})
```

```
db.Employee.update({project:{$elemMatch:{$in:[{"name":"Project-3","Hrs":4},{ "name":"Project-4","Hrs":3}]}}},{ $set:{skillset:["Java","C++"]}}, {multi:true})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
db.Employee.find().pretty();

  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Deepali Vaidya",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 2
    },
    {
      "name" : "Project-4",
      "Hrs" : 2
    }
  ],
  "bonus" : 2500

  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
```

```
{
  "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
  "empno" : 103,
  "ename" : "Deepak Verma",
  "sal" : 30000,
  "dept" : {
    "deptno" : 11,
    "dname" : "Developer",
    "dloc" : "Mumbai"
  },
  "Desg" : "Sales Department",
  "mgr" : {
    "name" : "Revti",
    "num" : "333"
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    },
    {
      "name" : "Project-3",
      "Hrs" : 4
    },
    {
      "name" : "Project-4",
      "Hrs" : 2
    }
  ],
  "bonus" : 3500,
  "hobbies" : [
    "Singing",
    "Cooking"
  ],
  "skillset" : [
    "Java",
    "C++"
  ]
}
```

18. Add a new hobby as blogging at 3 position in hobbies array for all employees whose name starts with R or p and ends with j,i or s

```
db.Employee.update({ename:/^[Rp].*[jis]$/},{push:{hobbies:"Blogging"}},{multi:true});
```

```
> db.Employee.update({ename:/^[Rp].*[jis]$/},{push:{hobbies:"Blogging"}},{multi:true});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Employee.find().pretty()
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2500,
  "hobbies" : [
    "Dancing",
    "Cricket",
    "Blogging"
  ],
}
```

19. Increase salary by 10000 for all employees who are working on project-2 or project-3 or project-1

Decrease bonus by 1000 rs And increase salary by 1000rs for all employees whose department location is Mumbai

```
db.Employee.updateMany({"project.name":{$in:["Project-2","Project-3","Project-1"]}},{$inc:{sal:10000}});
```

```
> db.Employee.updateMany({"project.name":{$in:["Project-2","Project-3","Project-1"]}},{$inc:{sal:10000}});
{ "acknowledged" : true, "matchedCount" : 5, "modifiedCount" : 5 }
> db.Employee.find({"project.name":{$in:["Project-2","Project-3","Project-1"]}}).pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 50000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Senior Programmer",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2500,
  "hobbies" : [
    "Cricket"
  ]
}
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 65000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
```

```

    "mgr" : {
        "name" : "Rajan",
        "num" : "222"
    },
    "project" : [
        {
            "name" : "Project-1",
            "Hrs" : 6
        },
        {
            "name" : "Project-2",
            "Hrs" : 2
        },
        {
            "name" : "Project-3",
            "Hrs" : 10
        }
    ],
    "bonus" : 2000,
    "hobbies" : [
        "Cooking"
    ]
}
{
    "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
    "empno" : 103,
    "ename" : "Deepak Verma",
    "sal" : 40000,
    "dept" : {
        "deptno" : 11,
        "dname" : "Developer",
        "dloc" : "Mumbai"
    },
    "Desg" : "Sales Department",
    "mgr" : {
        "name" : "Revti",
        "num" : "333"
    },
    "project" : [
        {
            "name" : "Project-1",
            "Hrs" : 6
        },
        {
            "name" : "Project-2",
            "Hrs" : 2
        },
        {
            "name" : "Project-3",
            "Hrs" : 10
        }
    ]
}

```

```
db.Employee.updateMany({"dept.dloc":"Mumbai"},{$inc:{bonus:-1000,sal:1000}});
```

```
> db.Employee.updateMany({"dept.dloc":"Mumbai"},{$inc:{bonus:-1000,sal:1000}});
{ "acknowledged" : true, "matchedCount" : 4, "modifiedCount" : 4 }
> db.Employee.find({"dept.dloc":"Mumbai"}).pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 51000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Senior Programmer",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 4
    },
    {
      "name" : "Project-2",
      "Hrs" : 2
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 1500,
  "hobbies" : [
    "Cricket"
  ]
}
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 66000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",

```

```

    },
    "project" : [
        {
            "name" : "Project-1",
            "Hrs" : 6
        },
        {
            "name" : "Project-2",
            "Hrs" : 2
        },
        {
            "name" : "Project-3",
            "Hrs" : 10
        }
    ],
    "bonus" : 1000,
    "hobbies" : [
        "Cooking"
    ]
}

{
    "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
    "empno" : 103,
    "ename" : "Deepak Verma",
    "sal" : 41000,
    "dept" : {
        "deptno" : 11,
        "dname" : "Developer",
        "dloc" : "Mumbai"
    },
    "Desg" : "Sales Department",
    "mgr" : {
        "name" : "Revti",
        "num" : "333"
    },
    "project" : [
        {
            "name" : "Project-1",
            "Hrs" : 6
        },
        {
            "name" : "Project-2",
            "Hrs" : 2
        },
        {
            "name" : "Project-3",
            "Hrs" : 10
        },
        {
            "name" : "Project-4",

```


20. Remove all employees working on project-1

```
db.Employee.deleteMany({"project.name":'Project-1'})
```

```
}  
> db.Employee.deleteMany({"project.name":'Project-1'})  
{ "acknowledged" : true, "deletedCount" : 5 }  
>
```

21. Replace document of employee with name "Deepak" to some new document

```
db.Employee.replaceOne({ename:/^Deepak/},{empno:103,ename:"Deepak  
Verma",sal:25000.00,dept:{deptno:11,dname:"Developer",dloc:"Pune"},Desg:"Assitant",mgr:{na  
me:"Rajan",num:333},project:[{name:"Project-1",Hrs:5},{name:"Project-5",Hrs:2}],bonus:5500})
```

```
> db.Employee.replaceOne({ename:/^Deepak/},{empno:103,ename:"Deepak Verma",sal:25000.00,dept:{deptno:11,dname:"Developer",dloc:"Pune"},Desg:"Assitant",mgr:{name:"Rajan",num:333},project:[{name:"Project-1",Hrs:5},{name:"Project-5",Hrs:2}],bonus:5500})  
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }  
> db.Employee.find({ename:/^Deepak/}).pretty();  
{  
  "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),  
  "empno" : 103,  
  "ename" : "Deepak Verma",  
  "sal" : 25000,  
  "dept" : {  
    "deptno" : 11,  
    "dname" : "Developer",  
    "dloc" : "Pune"  
  },  
  "Desg" : "Assitant",  
  "mgr" : {  
    "name" : "Rajan",  
    "num" : 333  
  },  
  "project" : [  
    {  
      "name" : "Project-1",  
      "Hrs" : 5  
    },  
    {  
      "name" : "Project-5",  
      "Hrs" : 2  
    }  
  ],  
  "bonus" : 5500  
}
```

22. Change skill python to python 3.8 for all employees if python is there in the skillset

```
db.Employee.update({skillset:"Python"},{$set:{"skillset.$":"Python 3.8"}},{multi:true});
```

```
> db.Employee.update({skillset:"Python"},{$set:{"skillset.$":"Python 3.8"}},{multi:true});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Employee.find().pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2500,
  "hobbies" : [
    "Dancing",
    "Cricket",
    "Blogging"
  ]
}
```

```
}
{
  "_id" : ObjectId("6444fa780442c9d3007b0d01"),
  "empno" : 104,
  "ename" : "Mushkan Gupta",
  "sal" : 50000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Pune"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 5
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2000,
  "skillset" : [
    "MongoDb",
    "Perl",
    "Python 3.8"
  ]
}
```

23. Add 2 skills MongoDB and Perl at the end of skillset array for all employees who are working at Pune location

```
db.Employee.update({"dept.dloc":"Pune"},{$set:{skillset:["MongoDb","Perl"]}},{multi:true});
```

```
> db.Employee.update({"dept.dloc":"Pune"},{$set:{skillset:["MongoDb","Perl"]}});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Employee.update({"dept.dloc":"Pune"},{$set:{skillset:["MongoDb","Perl"]}},{multi:true});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 0 })
> db.Employee.find({"dept.dloc":"Pune"}).pretty();
{
  "_id" : ObjectId("6444fa780442c9d3007b0d01"),
  "empno" : 104,
  "ename" : "Mushkan Gupta",
  "sal" : 50000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Pune"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 5
    },
    {
      "name" : "Project-3",
      "Hrs" : 5
    }
  ],
  "bonus" : 2000,
  "skillset" : [
    "MongoDb",
    "Perl"
  ]
}
```

24. Delete first hobby from hobby array for all employees who are working on project-1 or project-2

```
db.Employee.update({"project.name":{$in:["Project-2","Project-1"]}},{$pop:{hobbies:-1}},{multi:true})
```

```
> db.Employee.update({"project.name":{$in:["Project-2","Project-1"]}},{$pop:{hobbies:-1}},{multi:true})
WriteResult({ "nMatched" : 5, "nUpserted" : 0, "nModified" : 4 })
> db.Employee.find({"project.name":{$in:["Project-2","Project-1"]}}).pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2500,
  "hobbies" : [
    "Cricket",
    "Blogging"
  ]
}
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 55000,
  "dept" : {
    "deptno" : 10,
```

```

    "Desg" : "Administrative Officers",
    "mgr" : {
        "name" : "Rajan",
        "num" : "222"
    },
    "project" : [
        {
            "name" : "Project-1",
            "Hrs" : 5
        },
        {
            "name" : "Project-2",
            "Hrs" : 3
        },
        {
            "name" : "Project-3",
            "Hrs" : 10
        }
    ],
    "bonus" : 2000,
    "hobbies" : [
        "Cooking"
    ]
}
{
    "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
    "empno" : 103,
    "ename" : "Deepak Verma",
    "sal" : 30000,
    "dept" : {
        "deptno" : 11,
        "dname" : "Developer",
        "dloc" : "Mumbai"
    },
    "Desg" : "Sales Department",
    "mgr" : {
        "name" : "Revti",
        "num" : "333"
    },
    "project" : [
        {
            "name" : "Project-1",
            "Hrs" : 5
        },
        {
            "name" : "Project-2",
            "Hrs" : 2
        },
        {
            "name" : "Project-3",

```

25. Delete last hobby from hobbies array for all employees who are working on project which is at 2 nd position in projects array for 4 hrs

```
db.Employee.updateMany({"project.1.Hrs":4},{ $pop:{hobbies:1}})
```

```
> db.Employee.updateMany({"project.1.Hrs":4},{ $pop:{hobbies:1}})
{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }
> db.Employee.find({"project.1.Hrs":4}).pretty()
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2500,
  "hobbies" : [
    "Cricket"
  ]
}
{
  "_id" : ObjectId("6444fa7f0442c9d3007b0d02"),
  "empno" : 105,
  "ename" : "Khushi Verma",
  "sal" : 10000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Clerk",
  "mgr" : {
```

26. Add 2 new projects at the end of array for all employees whose skillset contains Perl or python

```
db.Employee.update({skillset:{$in:["Perl","Python"]}},{$push:{project:{$each:[{"name":"Project-4",Hrs:4}, {"name":"Project-5",Hrs:3}]}},{multi:true});
```

```
> db.Employee.update({skillset:{$in:["Perl","Python"]}},{$push:{project:{$each:[{"name":"Project-4",Hrs:4}, {"name":"Project-5",Hrs:3}]}},{multi:true});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Employee.find({skillset:{$in:["Perl","Python"]}}).pretty();
{
  "_id" : ObjectId("6444fa780442c9d3007b0d01"),
  "empno" : 104,
  "ename" : "Mushkan Gupta",
  "sal" : 50000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Pune"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 5
    },
    {
      "name" : "Project-2",
      "Hrs" : 5
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    },
    {
      "name" : "Project-4",
      "Hrs" : 4
    },
    {
      "name" : "Project-5",
      "Hrs" : 3
    }
  ],
  "bonus" : 2000,
  "skillset" : [
    "MongoDb",
    "Perl",
    "Python 3.8"
  ]
}
```


27. Change hrs to 6 for project-1 for all employees if they working on the project-1 for < 6 hrs. otherwise keep the existing value

```
db.Employee.updateMany({project:{$elemMatch:{name:"Project-1",Hrs:{$lt:6}}}},{$set:{"project.$.Hrs":6}})
```

```
> db.Employee.updateMany({project:{$elemMatch:{name:"Project-1",Hrs:{$lt:6}}}},{$set:{"project.$.Hrs":6}})
{ "acknowledged" : true, "matchedCount" : 5, "modifiedCount" : 5 }
> db.Employee.find().pretty();
{
  "_id" : ObjectId("6444fa370442c9d3007b0cfe"),
  "empno" : 101,
  "ename" : "Richa Kohli",
  "sal" : 40000,
  "dept" : {
    "deptno" : 12,
    "dname" : "Hr",
    "dloc" : "Mumbai"
  },
  "Desg" : "Analyst",
  "mgr" : {
    "name" : "Tushar",
    "num" : 3333
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 6
    },
    {
      "name" : "Project-2",
      "Hrs" : 4
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2500,
  "hobbies" : [
    "Cricket"
  ]
}
{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 55000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",
```

```

{
  "_id" : ObjectId("6444fa640442c9d3007b0cff"),
  "empno" : 102,
  "ename" : "Tanya Sharma",
  "sal" : 55000,
  "dept" : {
    "deptno" : 10,
    "dname" : "Purchase Department",
    "dloc" : "Mumbai"
  },
  "Desg" : "Administrative Officers",
  "mgr" : {
    "name" : "Rajan",
    "num" : "222"
  },
  "project" : [
    {
      "name" : "Project-1",
      "Hrs" : 6
    },
    {
      "name" : "Project-2",
      "Hrs" : 3
    },
    {
      "name" : "Project-3",
      "Hrs" : 10
    }
  ],
  "bonus" : 2000,
  "hobbies" : [
    "Cooking"
  ]
}
{
  "_id" : ObjectId("6444fa6e0442c9d3007b0d00"),
  "empno" : 103,
  "ename" : "Deepak Verma",
  "sal" : 30000,
  "dept" : {
    "deptno" : 11,
    "dname" : "Developer",
    "dloc" : "Mumbai"
  },
  "Desg" : "Sales Department",
  "mgr" : {
    "name" : "Revti",
    "num" : "333"
  },
  "project" : [

```