Create a Employee Collection add 5 documents:

Example:

{emono:111,ename:"Deepali

Vaidya",sal:40000.00,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}]}

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

Update the Employee collection for this.

```
iacsd0324> db.employee.update({Desg:'CLERK'},{$set:{desg:'AO'}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find({Desg:'CLERK'})
[
  {
    _id: ObjectId('660fca6c16353e98eb9f990b'),
    emono: 111,
    ename: 'Conan',
    sal: 40000,
    dept: { deptno: 14, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'CLERK',
    mgr: { name: 'Satish', num: 111 },
    project: [ { name: 'Project-1', Hrs: 4 }, { name: 'project-2', Hrs
: 4 } ],
    desg: 'AO'
  }
]
iacsd0324>
```

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

```
]
iacsd0324> db.employee.find({Desg:'Analyst','project.name':'Project-1'})
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 40080,
    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 }
]
  }
]
iacsd0324> db.employee.update({Desg:'Analyst','project.name':'Project-1'},{$
set:{'project.$.Hrs':5}})
DeprecationWarning: Collection.update() is deprecated. Use updateOne, update
Many, or bulkWrite.
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find({Desg:'Analyst','project.name':'Project-1'})
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 40080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Satish', num: 111 },
    project: [ { name: 'Project-1', Hrs: 5 }, { name: 'project-2', Hrs: 4 }
]
]
```

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

db.emp.update({name:/^Deep/},{$push:{project:{$each:[{name:'project-3',Hrs:2},{name:'project-4',Hrs:2}]}}},

{multi:true})

```
]
iacsd0324> db.employee.update({ename:/^Deep/},{$push:{project:{$each:[{ name
: 'project-3', Hrs: 2 }, { name: 'project-3', Hrs: 2 }]}}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find({Desg:'Analyst','project.name':'Project-1'})
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 40080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Satish', num: 111 },
    project: [
      { name: 'Project-1', Hrs: 5 },
      { name: 'project-2', Hrs: 6 },
      { name: 'project-3', Hrs: 2 },
      { name: 'project-3', Hrs: 2 }
    ]
  }
]
iacsd0324> |
```

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

```
      dept: { deptno: 14, dname: 'Hr', dloc: 'Mumbai' },
      Desg: 'CLERK',
      mgr: { name: 'Satish', num: 111 },
      project: [ { name: 'Project-1', Hrs: 4 }, { name: 'project-2', Hrs: 4 }
],
      desg: 'AO'
    }
]
iacsd0324> db.employee.updateMany({sal:{$gt:40000}},{$inc:{sal:2000}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
iacsd0324> db.employee.find({sal:{$gt:40000}})
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 44080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Satish', num: 111 },
    project: [
      { name: 'Project-1', Hrs: 5 },
      { name: 'project-2', Hrs: 6 },
      { name: 'project-3', Hrs: 2 },
      { name: 'project-3', Hrs: 2 }
    ],
    salary: 2000
  },
  {
    _id: ObjectId('660fca6c16353e98eb9f990b'),
    emono: 111,
    ename: 'Conan',
    sal: 42080,
```

5. add bonus 1500 if salary <50000 and > 30000

```
      desg: 'AO'
    }
]
iacsd0324> db.employee.updateMany({sal:{$gt:40000,$lt:43000}},{$inc:{sal:150
0}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find({sal:{$gt:40000}})
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 44080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Satish', num: 111 },
    project: [
      { name: 'Project-1', Hrs: 5 },
      { name: 'project-2', Hrs: 6 },
      { name: 'project-3', Hrs: 2 },
      { name: 'project-3', Hrs: 2 }
    ],
    salary: 2000
  },
  {
    _id: ObjectId('660fca6c16353e98eb9f990b'),
    emono: 111,
    ename: 'Conan',
    sal: 43580,
    dept: { deptno: 14, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'CLERK',
    mgr: { name: 'Satish', num: 111 },
```

6. add bonus 1000 if salary <=30000

```
    upsertedCount: 0
}
iacsd0324> db.employee.updateMany({sal:{$lte:50000}},{$inc:{sal:1000}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
iacsd0324> db.employee.find({sal:{$gt:40000}})
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 45080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Satish', num: 111 },
    project: [
      { name: 'Project-1', Hrs: 5 },
      { name: 'project-2', Hrs: 6 },
      { name: 'project-3', Hrs: 2 },
      { name: 'project-3', Hrs: 2 }
    ],
```

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

And manager number to 3333

```
}
iacsd0324> db.employee.updateMany({'mgr.name':'Satish'},{$set:{'mgr.name':'T
ushar'}})

 acknowledged: true,
 insertedId: null,
 matchedCount: 2,
 modifiedCount: 2,
 upsertedCount: 0

iacsd0324> db.employee.find()

 {
   _id: ObjectId('660fc9a316353e98eb9f990a'),
   emono: 111,
   ename: 'Deepali Vaidya',
   sal: 45080,
   dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
   Desg: 'Analyst',
   mgr: { name: 'Tushar', num: 111 },
   project: [
```

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

Db.employee

```
iacsd0324> db.employee.updateMany({'dept.dname':'Hr'},{$inc:{sal:1500}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
iacsd0324>
```

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

```
iacsd0324> db.employee.find({'project.name':'Hr'})

iacsd0324> db.employee.updateMany({'project.name':'project-2'},{$inc:{'proje
ct.$.Hrs':-2}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
```

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

hrs.

db.emp.update({},{$pull:{"project.name":"project-

2","project.Hrs":4}},{multi:true})

or

db.Emp.update({},{$pull:{project:{name:'project-2',Hrs:4}}},{multi:true})

or

db.emp.update({},{$pull:{"project:{$elemMatch:{name:"project-

2","Hrs":4}},{multi:true})

```
mongosh mongodb://127.0    ×    +  ∨                                    —    □    ×

    ename: 'Deepali Vaidya',
    sal: 48080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Tushar', num: 111 },
    project: [
      { name: 'Project-1', Hrs: 5 },
      { name: 'project-2', Hrs: 4 },
      { name: 'project-3', Hrs: 2 },
      { name: 'project-3', Hrs: 2 }
    ],
    salary: 2000
  }
]
iacsd0324> db.employee.update({'project.name':'project-3'},{$pull:{project:{
name:'Project-1',Hrs:5}}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find({'project.name':'project-3'})
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 48080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Tushar', num: 111 },
    project: [
      { name: 'project-2', Hrs: 4 },
      { name: 'project-3', Hrs: 2 },
      { name: 'project-3', Hrs: 2 }
    ],
    salary: 2000
```

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

```
  { _id: 5, semester: 2, grades: [ 88, 88, 92 ] },
  { _id: 6, semester: 2, grades: [ 95, 90, 96 ] }
]
iacsd0324> db.employee.update({sal:{$lt:47000}},{$set:{sal:10000}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find()
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 48080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Tushar', num: 111 },
    project: [
      { name: 'project-2', Hrs: 4 },
      { name: 'project-3', Hrs: 2 },
      { name: 'project-3', Hrs: 2 }
    ],
    salary: 2000
  },
  {
    _id: ObjectId('660fca6c16353e98eb9f990b'),
    emono: 111,
    ename: 'Conan',
    sal: 10000,
    dept: { deptno: 14, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'CLERK',
    mgr: { name: 'Tushar', num: 111 },
    project: [ { name: 'Project-1', Hrs: 4 }, { name: 'project-2', Hrs: 2 }
  },
],
```

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

```
    mgr: { name: 'Pinky', num: 106 },
    project: [ { name: 'Project-3', Hrs: 5 }, { name: 'Project-4', Hrs: 4 }
  ]
  }
]
iacsd0324> db.employee.updateMany({$or:[{bonus:{$lt:2000}},{sal:{$lt:20000}}
,{'dept.dname':'Politics'}]},{$set:{bonus:500}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 2,
  upsertedCount: 0
}
iacsd0324> |
```

13. Add 2 new project at position 2 for all employees with designation analyst or salary is

equal to either 30000 or 33000 or 35000

```
mongosh mongodb://127.0   ×   +   ∨                              —   □   □

-7',Hrs: 6}],$position:1}}})
MongoInvalidArgumentError: Update document requires atomic operators
iacsd0324> db.employee.updateMany({$or:[{Desg:'Analyst'},{sal:{$in:[1000,11
0,1200]}}]},{$push:{project:{$each:[{name:'project-2',Hrs: 4},{name:'projec
-7',Hrs: 6}],$position:1}}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 3,
  upsertedCount: 0
}
iacsd0324> db.employee.find()
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 48080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Tushar', num: 111 },
    project: [
      { name: 'project-2', Hrs: 4 },
      { name: 'project-2', Hrs: 4 },
      { name: 'project-7', Hrs: 6 },
      { name: 'project-3', Hrs: 2 },
      { name: 'project-3', Hrs: 2 }
    ],
    salary: 2000
  },
  {
    _id: ObjectId('660fca6c16353e98eb9f990b'),
    emono: 111,
    ename: 'Conan',
    sal: 10000,
    dept: { deptno: 14, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'CLERK',
    mgr: { name: 'Tushar', num: 111 },
```

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

is Mumbai

```
  upsertedCount: 0
}
iacsd0324> db.employee.updateMany({'dept.dname':'Hr','dept.dloc':'Mumbai'},{
$pop:{project:1}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
iacsd0324> db.employee.find({'dept.dname':'Hr','dept.dloc':'Mumbai'})
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
    ename: 'Deepali Vaidya',
    sal: 48080,
    dept: { deptno: 12, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'Analyst',
    mgr: { name: 'Tushar', num: 111 },
    project: [
      { name: 'project-2', Hrs: 4 },
      { name: 'project-2', Hrs: 4 },
      { name: 'project-7', Hrs: 6 }
    ],
    salary: 2000
  },
  {
    _id: ObjectId('660fca6c16353e98eb9f990b'),
    emono: 111,
    ename: 'Conan',
```

15. Change designation of all employees to senior programmer if they are working on

name:"Project-1" for 4 hrs

```
    }
]
iacsd0324> db.employee.update({project:{$elemMatch:{name:'Project-1',Hrs:4}}
},{$set:{Desg:'senior programer'}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find({project:{$elemMatch:{name:'Project-1',Hrs:4}}})

[
  {
    _id: ObjectId('660fca6c16353e98eb9f990b'),
    emono: 111,
    ename: 'Conan',
    sal: 10000,
    dept: { deptno: 14, dname: 'Hr', dloc: 'Mumbai' },
    Desg: 'senior programer',
    mgr: { name: 'Tushar', num: 111 },
    project: [ { name: 'Project-1', Hrs: 4 } ],
    desg: 'AO',
    bonus: 500
  }
]
iacsd0324>
```

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

```
  2 |

iacsd0324> db.employee.updateMany({'mgr.name':{$in:['Pinky','Conan']}},{$set
:{hobbies:'playing'}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find({'mgr.name':{$in:['Pinky','Conan']}})
[
  {
    _id: ObjectId('66114c79f143d2e2d89f990b'),
    empno: 117,
    ename: 'Atharva',
    sal: 1000,
    dept: { deptno: 15, dname: 'Politician', dloc: 'Mumbai' },
    Desg: 'Politics',
    mgr: { name: 'Pinky', num: 106 },
    project: [
      { name: 'Project-3', Hrs: 5 },
      { name: 'project-2', Hrs: 4 },
      { name: 'project-7', Hrs: 6 },
      { name: 'Project-4', Hrs: 4 }
    ],
    bonus: 500,
    hobbies: 'playing'
  }
]
iacsd0324>
```

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

```
    hobbies: 'playing'
  }
]
iacsd0324> db.employee.updateMany({project:{$elemMatch:{$or:[{name:'Project-
4',Hrs:4},{name:'Project-7',Hrs:6}]}}},{$set:{skillset:['python','java']}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
iacsd0324> db.employee.find({project:{$elemMatch:{$or:[{name:'Project-4',Hrs
:4},{name:'Project-7',Hrs:6}]}}})
[
  {
    _id: ObjectId('66114c32f143d2e2d89f990a'),
    empno: 117,
    ename: 'Atharva',
    sal: 1000,
    dept: { deptno: 15, dname: 'Politician', dloc: 'Mumbai' },
    Desg: 'Politics',
    project: [
      { name: 'Project-3', Hrs: 5 },
      { name: 'project-2', Hrs: 4 },
      { name: 'project-7', Hrs: 6 },
      { name: 'Project-4', Hrs: 4 }
    ],
    bonus: 500,
    skillset: [ 'python', 'java' ]
  },
  {
    _id: ObjectId('66114c79f143d2e2d89f990b'),
    empno: 117,
    ename: 'Atharva',
    sal: 1000,
    dept: { deptno: 15, dname: 'Politician', dloc: 'Mumbai' },
    Desg: 'Politics',
    mgr: { name: 'Pinky', num: 106 },
```

18. Add a new hobby as blogging at 3 position in hobbies array for all employess whose

name starts with R or p and ends with j or s

```
Jing an aggregation pipeline with $replaceWith:
iacsd0324> db.employee.update({ename:/^[RA].*[ja]$/},{$push:{skillset:{$each
:['blog'],$position:2}}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find()
```

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

or project-1

```
  3 |
iacsd0324>  db.employee.updateMany({'project.name':{$in:['Project-3','projec
t-2','project-1']}},{$inc:{sal:10000}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 3,
  upsertedCount: 0
}
```

20. Decrease bonus by 1000 rs And increase salary by 1000rs for all employees whose

department location is Mumbai

```
]
iacsd0324>  db.employee.updateMany({'dept.dloc':'Mumbai'},{$inc:{sal:1000},$
inc:{bonus:-1000}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 4,
  modifiedCount: 4,
  upsertedCount: 0
}
iacsd0324> db.employee.find({'dept.dloc':'Mumbai'})
[
```

21. Remove all employees working on project-1

```
  5
]
iacsd0324> db.employee.deleteOne({'project.name':'Project-1'})
```

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

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

```
iacsd0324> db.employee.update({'skillset':'java'},{$set:{'skillset.$[element]':'java2'}
ers:[{'element':'java'}]})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

24. Add 2 skills MongoDb and Perl at the end of skillset array for all employees who are

working at Pune location

```
MongoServerError: The field 'skillset' must be an array but is of type string in document {_id: Obj
ectId('66114c32f143d2e2d89f990a')}
iacsd0324> db.employee.update({'dept.dloc':'Mumbai'},{$push:{skillset:{$each:['Mongodb','perl']}}})

{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324> db.employee.find()
```

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

or project-2

```
iacsd0324> db.employee.update({'project.name':{$in:['project-2','project-1']}},{$po
ulti:true})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 3,
  upsertedCount: 0
}
iacsd0324> db.employee.find()
[
```

26. 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

```
  }
]
iacsd0324> db.employee.update({'project.1.Hrs':4},{$pop:{hobby:1}},{multi:true})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 1,
  upsertedCount: 0
}
iacsd0324>
```

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

or python

```
    hobby: []
  }
]
iacsd0324> db.employee.update({$or:[{skillset:'python'},{skillset:'perl'}]},{$pus
h:{project:{$each:[{name:'Project-3',Hrs:5},{name:'Project-3',Hrs:5}]}}},{multi:t
rue})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
iacsd0324> db.employee.find()
[
  {
    _id: ObjectId('660fc9a316353e98eb9f990a'),
    emono: 111,
```

28. 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.