

Name: Tejas Rajesh Machkar
Roll No: 23
Class: TE2 Comp
PRN: F18112025

```
use empdb;
switched to db empdb
> db;
empdb
-----INSERT INTO COLLECTION(employee)-----
-----

> db.employee.insert({empid:1,name:{fname:'MACHO',lname:'MACHKAR'}
,company_name:'INFOSYS',salary_no:31000,des:'tester',age:23,expertise:'we
b dev',DOB:new Date('2000-01-
22'),email:'tejassmachkar@gmail.com',contact:9765222269,address:[{padd:{c
ity:'pune',state:'maharashtra'}},{ladd:{city:'pune',state:'maharashtra'}}
] });
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:2,name:{fname:'Harshika',lname:'mishra'}
,company_name:'INFOSYS',salary_no:310000,des:'HR',age:45,expertise:'Recru
itment',DOB:new Date('2000-03-
15'),email:'harshikaINC@gmail.com',contact:8765222269,address:[{padd:{cit
y:'Panaji',state:'Goa'}},{ladd:{city:'pune',state:'maharashtra'}}]]});
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:3,name:{fname:'Sumedh',lname:'Ovhal'}
,company_name:'TCS',salary_no:21000,des:'Tester',age:25,expertise:'Sympat
hy Gainer',DOB:new Date('2000-02-
06'),email:'sumedh@gmail.com',contact:8765222279,address:[{padd:{city:'Mo
rocco',state:'Uganda'}},{ladd:{city:'pune',state:'maharashtra'}}]]});
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:4,name:{fname:'Shabbir',lname:'kanchwala'}
,company_name:'TCS',salary_no:210000,des:'Developer',age:28,expertise:'ma
naging ppl',DOB:new Date('2000-11-
25'),email:'shabbir@gmail.com',contact:8775222279,address:[{padd:{city:'A
l habibi',state:'Jordan'}},{ladd:{city:'pune',state:'maharashtra'}}]]});
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:5,name:{fname:'Ankita',lname:'Zadoo'}
,company_name:'Infosys',salary_no:21000,des:'Developer',age:44,expertise:
'managing ppl',DOB:new Date('2000-02-
29'),email:'ankita@gmail.com',contact:8775223279,address:[{padd:{city:'Ci
ty',state:'Jordan'}},{ladd:{city:'pune',state:'maharashtra'}}]]});
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:6,name:{fname:'Shreya',lname:'Kashid'}
,company_name:'Infosys',salary_no:50000,des:'Senior
Developer',age:37,expertise:'completion',DOB:new Date('2000-11-
04'),email:'shreya@gmail.com',contact:8775225679,address:[{padd:{city:'sa
tara',state:'maharashtra'}},{ladd:{city:'pune',state:'maharashtra'}}]]});
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:7,name:{fname:'Sayali',lname:'Ovhal'}
,company_name:'Infosys',salary_no:51000,des:'tester',age:34,expertise:'Ta
lking',DOB:new Date('2000-10-
19'),email:'abc@gmail.com',contact:8755225679,address:[{padd:{city:'Dream
City',state:'Mars'}},{ladd:{city:'pune',state:'maharashtra'}}]]});
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:8,name:{fname:'Atulya',lname:'Nair'}
,company_name:'',salary_no:51000,des:' Developer',age:56,expertise:'web
dev',DOB:new Date('2000-12-
```

```

11'),email:'tulyaaa@gmail.com',contact:8755225879,address:[{padd:{city:'k
ochin',state:'kerela'}}},{ladd:{city:'pune',state:'maharashtra'}}]);
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:9,name:{fname:'Kaushik',lname:'Oswal'}
,company_name:'amazon',salary_no:21000,des:'Senior
Developer',age:15,expertise:'android dev',DOB:new Date('2000-12-
11'),email:'Oswal@gmail.com',contact:8755225479,address:[{padd:{city:'Mir
zapur',state:'UP',Pin_code:411101}}, {ladd:{city:'pune',state:'maharashtra
'}}]}]);
WriteResult({ "nInserted" : 1 })
> db.employee.insert({empid:10,name:{fname:'sanyukta',lname:'adsule'}
,company_name:'serum',salary_no:11999,des:'tester',age:21,expertise:'app
dev',DOB:new Date('2000-10-
23'),email:'sanyuuuu@gmail.com',contact:8755225879,address:[{padd:{city:'
pune',state:'Maharashtra',Pin_code:411014}}, {ladd:{city:'pune',state:'mah
arashtra'}}]}]);
WriteResult({ "nInserted" : 1 })

```

-----ALL THE DOCUMENTS-----

```

> db.employee.find().pretty();
{
  "_id" : ObjectId("5fddded9fd9f4759b65a8fae"),
  "empid" : 1,
  "name" : {
    "fname" : "MACHO",
    "lname" : "MACHKAR"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 31000,
  "des" : "tester",
  "age" : 23,
  "expertise" : "web dev",
  "DOB" : ISODate("2000-01-22T00:00:00Z"),
  "email" : "tejassmachkar@gmail.com",
  "contact" : 9765222269,
  "address" : [
    {
      "padd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
{
  "_id" : ObjectId("5fdddf0ffd9f4759b65a8faf"),
  "empid" : 2,
  "name" : {
    "fname" : "Harshika",
    "lname" : "mishra"
  },
  "company_name" : "INFOSYS",

```

```

"salary_no" : 310000,
"des" : "HR",
"age" : 45,
"expertise" : "Recruitment",
"DOB" : ISODate("2000-03-15T00:00:00Z"),
"email" : "harshikaINC@gmail.com",
"contact" : 8765222269,
"address" : [
  {
    "padd" : {
      "city" : "Panaji",
      "state" : "Goa"
    }
  },
  {
    "ladd" : {
      "city" : "pune",
      "state" : "maharashtra"
    }
  }
]
}
{
  "_id" : ObjectId("5fdddf20fd9f4759b65a8fb0"),
  "empid" : 3,
  "name" : {
    "fname" : "Sumedh",
    "lname" : "Ovhal"
  },
  "company_name" : "TCS",
  "salary_no" : 21000,
  "des" : "Tester",
  "age" : 25,
  "expertise" : "web dev",
  "DOB" : ISODate("2000-02-06T00:00:00Z"),
  "email" : "sumedh@gmail.com",
  "contact" : 8765222279,
  "address" : [
    {
      "padd" : {
        "city" : "Morocco",
        "state" : "Uganda"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
{
  "_id" : ObjectId("5fdddf2efd9f4759b65a8fb1"),
  "empid" : 4,
  "name" : {
    "fname" : "Shabbir",
    "lname" : "kanchwala"
  },
  "company_name" : "TCS",

```

```

"salary_no" : 210000,
"des" : "Developer",
"age" : 28,
"expertise" : "managing ppl",
"DOB" : ISODate("2000-11-25T00:00:00Z"),
"email" : "shabbir@gmail.com",
"contact" : 8775222279,
"address" : [
  {
    "padd" : {
      "city" : "Al habibi",
      "state" : "Jordan"
    }
  },
  {
    "ladd" : {
      "city" : "pune",
      "state" : "maharashtra"
    }
  }
]
}
{
  "_id" : ObjectId("5fdddf42fd9f4759b65a8fb2"),
  "empid" : 5,
  "name" : {
    "fname" : "Ankita",
    "lname" : "Zadoo"
  },
  "company_name" : "Infosys",
  "salary_no" : 21000,
  "des" : "Developer",
  "age" : 44,
  "expertise" : "managing ppl",
  "DOB" : ISODate("2000-02-29T00:00:00Z"),
  "email" : "ankita@gmail.com",
  "contact" : 8775223279,
  "address" : [
    {
      "padd" : {
        "city" : "City",
        "state" : "Jordan"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
{
  "_id" : ObjectId("5fdddf55fd9f4759b65a8fb3"),
  "empid" : 6,
  "name" : {
    "fname" : "Shreya",
    "lname" : "Kashid"
  },
  "company_name" : "Infosys",

```

```

"salary_no" : 50000,
"des" : "Senior Developer",
"age" : 37,
"expertise" : "completion",
"DOB" : ISODate("2000-11-04T00:00:00Z"),
"email" : "shreya@gmail.com",
"contact" : 8775225679,
"address" : [
  {
    "padd" : {
      "city" : "satara",
      "state" : "maharashtra"
    }
  },
  {
    "ladd" : {
      "city" : "pune",
      "state" : "maharashtra"
    }
  }
]
}
{
  "_id" : ObjectId("5fdddf60fd9f4759b65a8fb4"),
  "empid" : 7,
  "name" : {
    "fname" : "Sayali",
    "lname" : "Ovhal"
  },
  "company_name" : "Infosys",
  "salary_no" : 51000,
  "des" : "tester",
  "age" : 34,
  "expertise" : "Talking",
  "DOB" : ISODate("2000-10-19T00:00:00Z"),
  "email" : "abc@gmail.com",
  "contact" : 8755225679,
  "address" : [
    {
      "padd" : {
        "city" : "Dream City",
        "state" : "Mars"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
{
  "_id" : ObjectId("5fdddf6afd9f4759b65a8fb5"),
  "empid" : 8,
  "name" : {
    "fname" : "Atulya",
    "lname" : "Nair"
  },
  "company_name" : "",

```

```

"salary_no" : 51000,
"des" : "Developer",
"age" : 56,
"expertise" : "web dev",
"DOB" : ISODate("2000-12-11T00:00:00Z"),
"email" : "tulyaaa@gmail.com",
"contact" : 8755225879,
"address" : [
  {
    "padd" : {
      "city" : "kochin",
      "state" : "kerela"
    }
  },
  {
    "ladd" : {
      "city" : "pune",
      "state" : "maharashtra"
    }
  }
]
}
{
  "_id" : ObjectId("5fdde002fd9f4759b65a8fb6"),
  "empid" : 9,
  "name" : {
    "fname" : "Kaushik",
    "lname" : "Oswal"
  },
  "company_name" : "Amazon",
  "salary_no" : 21000,
  "des" : "Senior Developer",
  "age" : 15,
  "expertise" : "android dev",
  "DOB" : ISODate("2000-12-11T00:00:00Z"),
  "email" : "Oswal@gmail.com",
  "contact" : 8755225479,
  "address" : [
    {
      "padd" : {
        "city" : "Mirzapur",
        "state" : "UP",
        "Pin_code" : 411101
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
{
  "_id" : ObjectId("5fdde00efd9f4759b65a8fb7"),
  "empid" : 10,
  "name" : {
    "fname" : "sanyukta",
    "lname" : "adsule"
  },

```

```

"company_name" : "serum",
"salary_no" : 11999,
"des" : "tester",
"age" : 21,
"expertise" : "app dev",
"DOB" : ISODate("2000-10-23T00:00:00Z"),
"email" : "sanyuuuu@gmail.com",
"contact" : 8755225879,
"address" : [
  {
    "padd" : {
      "city" : "pune",
      "state" : "Maharashtra",
      "Pin_code" : 411014
    }
  },
  {
    "ladd" : {
      "city" : "pune",
      "state" : "maharashtra"
    }
  }
]
}

```

-----QUESTIONS -----

1. Select all documents where the Designation field has the value "Programmer" and the value of the salary field is greater than 30000.

```

> db.employee.find({des:'Developer',salary_no:{$gt:30000}}).pretty();
{

```

```

  "_id" : ObjectId("5fdddf2efd9f4759b65a8fb1"),
  "empid" : 4,
  "name" : {
    "fname" : "Shabbir",
    "lname" : "kanchwala"
  },
  "company_name" : "TCS",
  "salary_no" : 210000,
  "des" : "Developer",
  "age" : 28,
  "expertise" : "managing ppl",
  "DOB" : ISODate("2000-11-25T00:00:00Z"),
  "email" : "shabbir@gmail.com",
  "contact" : 8775222279,
  "address" : [
    {
      "padd" : {
        "city" : "Al habibi",
        "state" : "Jordan"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}

```

```

    }
  }
]
}
{
  "_id" : ObjectId("5fdddf6afd9f4759b65a8fb5"),
  "empid" : 8,
  "name" : {
    "fname" : "Atulya",
    "lname" : "Nair"
  },
  "company_name" : "",
  "salary_no" : 51000,
  "des" : "Developer",
  "age" : 56,
  "expertise" : "web dev",
  "DOB" : ISODate("2000-12-11T00:00:00Z"),
  "email" : "tulyaaa@gmail.com",
  "contact" : 8755225879,
  "address" : [
    {
      "padd" : {
        "city" : "kochin",
        "state" : "kerela"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}

```

2. Creates a new document if no document in the employee collection contains {Designation: "Tester", Company_name: "TCS", Age: 25}

>

```
db.employee.update({company_name:'TCS',salary_no:11999,des:'Tester',age:25},{ $set:{empid:15}}, {upsert:"True"});
```

```
WriteResult({
  "nMatched" : 0,
  "nUpserted" : 1,
  "nModified" : 0,
  "_id" : ObjectId("5fe06a37020554aad92b42c5")
})
```

}}

```
> db.employee.find().pretty();
```

```

{
  "_id" : ObjectId("5fddded9fd9f4759b65a8fae"),
  "empid" : 1,
  "name" : {
    "fname" : "MACHO",
    "lname" : "MACHKAR"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 31000,
  "des" : "tester",
  "age" : 23,
  "expertise" : "web dev",

```



```

"DOB" : ISODate("2000-01-22T00:00:00Z"),
"email" : "tejassmachkar@gmail.com",
"contact" : 9765222269,
"address" : [
    {
        "padd" : {
            "city" : "pune",
            "state" : "maharashtra"
        }
    },
    {
        "ladd" : {
            "city" : "pune",
            "state" : "maharashtra"
        }
    }
]
}
{
    "_id" : ObjectId("5fdddf0ffd9f4759b65a8faf"),
    "empid" : 2,
    "name" : {
        "fname" : "Harshika",
        "lname" : "mishra"
    },
    "company_name" : "INFOSYS",
    "salary_no" : 310000,
    "des" : "HR",
    "age" : 45,
    "expertise" : "Recruitment",
    "DOB" : ISODate("2000-03-15T00:00:00Z"),
    "email" : "harshikaINC@gmail.com",
    "contact" : 8765222269,
    "address" : [
        {
            "padd" : {
                "city" : "Panaji",
                "state" : "Goa"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf20fd9f4759b65a8fb0"),
    "empid" : 3,
    "name" : {
        "fname" : "Sumedh",
        "lname" : "Ovhal"
    },
    "company_name" : "TCS",
    "salary_no" : 21000,
    "des" : "Tester",
    "age" : 25,
    "expertise" : "web dev",

```

```

"DOB" : ISODate("2000-02-06T00:00:00Z"),
"email" : "sumedh@gmail.com",
"contact" : 8765222279,
"address" : [
    {
        "padd" : {
            "city" : "Morocco",
            "state" : "Uganda"
        }
    },
    {
        "ladd" : {
            "city" : "pune",
            "state" : "maharashtra"
        }
    }
]
}
{
    "_id" : ObjectId("5fdddf2efd9f4759b65a8fb1"),
    "empid" : 4,
    "name" : {
        "fname" : "Shabbir",
        "lname" : "kanchwala"
    },
    "company_name" : "TCS",
    "salary_no" : 210000,
    "des" : "Developer",
    "age" : 28,
    "expertise" : "managing ppl",
    "DOB" : ISODate("2000-11-25T00:00:00Z"),
    "email" : "shabbir@gmail.com",
    "contact" : 8775222279,
    "address" : [
        {
            "padd" : {
                "city" : "Al habibi",
                "state" : "Jordan"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf42fd9f4759b65a8fb2"),
    "empid" : 5,
    "name" : {
        "fname" : "Ankita",
        "lname" : "Zadoo"
    },
    "company_name" : "Infosys",
    "salary_no" : 21000,
    "des" : "Developer",
    "age" : 44,
    "expertise" : "managing ppl",

```

```

"DOB" : ISODate("2000-02-29T00:00:00Z"),
"email" : "ankita@gmail.com",
"contact" : 8775223279,
"address" : [
    {
        "padd" : {
            "city" : "City",
            "state" : "Jordan"
        }
    },
    {
        "ladd" : {
            "city" : "pune",
            "state" : "maharashtra"
        }
    }
]
}
{
    "_id" : ObjectId("5fdddf55fd9f4759b65a8fb3"),
    "empid" : 6,
    "name" : {
        "fname" : "Shreya",
        "lname" : "Kashid"
    },
    "company_name" : "Infosys",
    "salary_no" : 50000,
    "des" : "Senior Developer",
    "age" : 37,
    "expertise" : "completion",
    "DOB" : ISODate("2000-11-04T00:00:00Z"),
    "email" : "shreya@gmail.com",
    "contact" : 8775225679,
    "address" : [
        {
            "padd" : {
                "city" : "satara",
                "state" : "maharashtra"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf60fd9f4759b65a8fb4"),
    "empid" : 7,
    "name" : {
        "fname" : "Sayali",
        "lname" : "Ovhal"
    },
    "company_name" : "Infosys",
    "salary_no" : 51000,
    "des" : "tester",
    "age" : 34,
    "expertise" : "Talking",

```

```

"DOB" : ISODate("2000-10-19T00:00:00Z"),
"email" : "abc@gmail.com",
"contact" : 8755225679,
"address" : [
  {
    "padd" : {
      "city" : "Dream City",
      "state" : "Mars"
    }
  },
  {
    "ladd" : {
      "city" : "pune",
      "state" : "maharashtra"
    }
  }
]
}
{
  "_id" : ObjectId("5fdddf6afd9f4759b65a8fb5"),
  "empid" : 8,
  "name" : {
    "fname" : "Atulya",
    "lname" : "Nair"
  },
  "company_name" : "",
  "salary_no" : 51000,
  "des" : "Developer",
  "age" : 56,
  "expertise" : "web dev",
  "DOB" : ISODate("2000-12-11T00:00:00Z"),
  "email" : "tulyaaa@gmail.com",
  "contact" : 8755225879,
  "address" : [
    {
      "padd" : {
        "city" : "kochin",
        "state" : "kerela"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
{
  "_id" : ObjectId("5fdde002fd9f4759b65a8fb6"),
  "empid" : 9,
  "name" : {
    "fname" : "Kaushik",
    "lname" : "Oswal"
  },
  "company_name" : "Amazon",
  "salary_no" : 21000,
  "des" : "Senior Developer",
  "age" : 15,
  "expertise" : "android dev",

```

```

"DOB" : ISODate("2000-12-11T00:00:00Z"),
"email" : "Oswal@gmail.com",
"contact" : 8755225479,
"address" : [
    {
        "padd" : {
            "city" : "Mirzapur",
            "state" : "UP",
            "Pin_code" : 411101
        }
    },
    {
        "ladd" : {
            "city" : "pune",
            "state" : "maharashtra"
        }
    }
]
}
{
    "_id" : ObjectId("5fdde00efd9f4759b65a8fb7"),
    "empid" : 10,
    "name" : {
        "fname" : "sanyukta",
        "lname" : "adsule"
    },
    "company_name" : "serum",
    "salary_no" : 11999,
    "des" : "tester",
    "age" : 21,
    "expertise" : "app dev",
    "DOB" : ISODate("2000-10-23T00:00:00Z"),
    "email" : "sanyuuuu@gmail.com",
    "contact" : 8755225879,
    "address" : [
        {
            "padd" : {
                "city" : "pune",
                "state" : "Maharashtra",
                "Pin_code" : 411014
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fe06a37020554aad92b42c5"),
    "age" : 25,
    "company_name" : "TCS",
    "des" : "Tester",
    "salary_no" : 11999,
    "empid" : 15
}

```

3. Selects all documents in the collection where the field age has a value less than 30 or

the value of the salary field is greater than 40000.

```
> db.employee.find({$or:
```

```
[{age:{$lt:30}}, {salary_no:{$gt:40000}}])).pretty();
```

```
{
  "_id" : ObjectId("5fddded9fd9f4759b65a8fae"),
  "empid" : 1,
  "name" : {
    "fname" : "MACHO",
    "lname" : "MACHKAR"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 31000,
  "des" : "tester",
  "age" : 23,
  "expertise" : "web dev",
  "DOB" : ISODate("2000-01-22T00:00:00Z"),
  "email" : "tejassmachkar@gmail.com",
  "contact" : 9765222269,
  "address" : [
    {
      "padd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
```

```
{
  "_id" : ObjectId("5fdddf0ffd9f4759b65a8faf"),
  "empid" : 2,
  "name" : {
    "fname" : "Harshika",
    "lname" : "mishra"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 310000,
  "des" : "HR",
  "age" : 45,
  "expertise" : "Recruitment",
  "DOB" : ISODate("2000-03-15T00:00:00Z"),
  "email" : "harshikaINC@gmail.com",
  "contact" : 8765222269,
  "address" : [
    {
      "padd" : {
        "city" : "Panaji",
        "state" : "Goa"
      }
    },
    {
      "ladd" : {
        "city" : "pune",

```

```

        "state" : "maharashtra"
    }
}

]

{
    "_id" : ObjectId("5fdddf20fd9f4759b65a8fb0"),
    "empid" : 3,
    "name" : {
        "fname" : "Sumedh",
        "lname" : "Ovhal"
    },
    "company_name" : "TCS",
    "salary_no" : 21000,
    "des" : "Tester",
    "age" : 25,
    "expertise" : "web dev",
    "DOB" : ISODate("2000-02-06T00:00:00Z"),
    "email" : "sumedh@gmail.com",
    "contact" : 8765222279,
    "address" : [
        {
            "padd" : {
                "city" : "Morocco",
                "state" : "Uganda"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}

{
    "_id" : ObjectId("5fdddf2efd9f4759b65a8fb1"),
    "empid" : 4,
    "name" : {
        "fname" : "Shabbir",
        "lname" : "kanchwala"
    },
    "company_name" : "TCS",
    "salary_no" : 210000,
    "des" : "Developer",
    "age" : 28,
    "expertise" : "managing ppl",
    "DOB" : ISODate("2000-11-25T00:00:00Z"),
    "email" : "shabbir@gmail.com",
    "contact" : 8775222279,
    "address" : [
        {
            "padd" : {
                "city" : "Al habibi",
                "state" : "Jordan"
            }
        },
        {
            "ladd" : {
                "city" : "pune",

```

```

        "state" : "maharashtra"
    }
}
]
}
{
    "_id" : ObjectId("5fdddf55fd9f4759b65a8fb3"),
    "empid" : 6,
    "name" : {
        "fname" : "Shreya",
        "lname" : "Kashid"
    },
    "company_name" : "Infosys",
    "salary_no" : 50000,
    "des" : "Senior Developer",
    "age" : 37,
    "expertise" : "completion",
    "DOB" : ISODate("2000-11-04T00:00:00Z"),
    "email" : "shreya@gmail.com",
    "contact" : 8775225679,
    "address" : [
        {
            "padd" : {
                "city" : "satara",
                "state" : "maharashtra"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf60fd9f4759b65a8fb4"),
    "empid" : 7,
    "name" : {
        "fname" : "Sayali",
        "lname" : "Ovhal"
    },
    "company_name" : "Infosys",
    "salary_no" : 51000,
    "des" : "tester",
    "age" : 34,
    "expertise" : "Talking",
    "DOB" : ISODate("2000-10-19T00:00:00Z"),
    "email" : "abc@gmail.com",
    "contact" : 8755225679,
    "address" : [
        {
            "padd" : {
                "city" : "Dream City",
                "state" : "Mars"
            }
        },
        {
            "ladd" : {
                "city" : "pune",

```



```

        "state" : "maharashtra"
    }
}
]
{
    "_id" : ObjectId("5fdddf6afd9f4759b65a8fb5"),
    "empid" : 8,
    "name" : {
        "fname" : "Atulya",
        "lname" : "Nair"
    },
    "company_name" : "",
    "salary_no" : 51000,
    "des" : "Developer",
    "age" : 56,
    "expertise" : "web dev",
    "DOB" : ISODate("2000-12-11T00:00:00Z"),
    "email" : "tulyaaa@gmail.com",
    "contact" : 8755225879,
    "address" : [
        {
            "padd" : {
                "city" : "kochin",
                "state" : "kerela"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdde002fd9f4759b65a8fb6"),
    "empid" : 9,
    "name" : {
        "fname" : "Kaushik",
        "lname" : "Oswal"
    },
    "company_name" : "Amazon",
    "salary_no" : 21000,
    "des" : "Senior Developer",
    "age" : 15,
    "expertise" : "android dev",
    "DOB" : ISODate("2000-12-11T00:00:00Z"),
    "email" : "Oswal@gmail.com",
    "contact" : 8755225479,
    "address" : [
        {
            "padd" : {
                "city" : "Mirzapur",
                "state" : "UP",
                "Pin_code" : 411101
            }
        },
        {
            "ladd" : {

```

```

        "city" : "pune",
        "state" : "maharashtra"
    }
}
]
}
{
    "_id" : ObjectId("5fdde00efd9f4759b65a8fb7"),
    "empid" : 10,
    "name" : {
        "fname" : "sanyukta",
        "lname" : "adsule"
    },
    "company_name" : "serum",
    "salary_no" : 11999,
    "des" : "tester",
    "age" : 21,
    "expertise" : "app dev",
    "DOB" : ISODate("2000-10-23T00:00:00Z"),
    "email" : "sanyuuuu@gmail.com",
    "contact" : 8755225879,
    "address" : [
        {
            "padd" : {
                "city" : "pune",
                "state" : "Maharashtra",
                "Pin_code" : 411014
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}

```

****4.** Matches all documents where the value of the field Address is an embedded document that contains only the field city with the value "Pune" and the field Pin_code with the value "411001".

```

>db.employee.find({$and:[{address.padd.city:"pune"},{address.padd.state:"maharashtra"}]}).pretty();

```

5. Finds all documents with Company_name: "TCS" and modifies their salary field by 2000.

```

> db.employee.updateMany({company_name:'TCS'},{$set: {salary_no:2000}});
{ "acknowledged" : true, "matchedCount" : 3, "modifiedCount" : 3 }
> db.employee.find().pretty();
{
    "_id" : ObjectId("5fddded9fd9f4759b65a8fae"),
    "empid" : 1,
    "name" : {
        "fname" : "MACHO",

```

```

        "lname" : "MACHKAR"
    },
    "company_name" : "INFOSYS",
    "salary_no" : 31000,
    "des" : "tester",
    "age" : 23,
    "expertise" : "web dev",
    "DOB" : ISODate("2000-01-22T00:00:00Z"),
    "email" : "tejassmachkar@gmail.com",
    "contact" : 9765222269,
    "address" : [
        {
            "padd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf0ffd9f4759b65a8faf"),
    "empid" : 2,
    "name" : {
        "fname" : "Harshika",
        "lname" : "mishra"
    },
    "company_name" : "INFOSYS",
    "salary_no" : 310000,
    "des" : "HR",
    "age" : 45,
    "expertise" : "Recruitment",
    "DOB" : ISODate("2000-03-15T00:00:00Z"),
    "email" : "harshikaINC@gmail.com",
    "contact" : 8765222269,
    "address" : [
        {
            "padd" : {
                "city" : "Panaji",
                "state" : "Goa"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf20fd9f4759b65a8fb0"),
    "empid" : 3,
    "name" : {
        "fname" : "Sumedh",

```

```

        "lname" : "Ovhal"
    },
    "company_name" : "TCS",
    "salary_no" : 2000,
    "des" : "Tester",
    "age" : 25,
    "expertise" : "web dev",
    "DOB" : ISODate("2000-02-06T00:00:00Z"),
    "email" : "sumedh@gmail.com",
    "contact" : 8765222279,
    "address" : [
        {
            "padd" : {
                "city" : "Morocco",
                "state" : "Uganda"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf2efd9f4759b65a8fb1"),
    "empid" : 4,
    "name" : {
        "fname" : "Shabbir",
        "lname" : "kanchwala"
    },
    "company_name" : "TCS",
    "salary_no" : 2000,
    "des" : "Developer",
    "age" : 28,
    "expertise" : "managing ppl",
    "DOB" : ISODate("2000-11-25T00:00:00Z"),
    "email" : "shabbir@gmail.com",
    "contact" : 8775222279,
    "address" : [
        {
            "padd" : {
                "city" : "Al habibi",
                "state" : "Jordan"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf42fd9f4759b65a8fb2"),
    "empid" : 5,
    "name" : {
        "fname" : "Ankita",

```

```

        "lname" : "Zadoo"
    },
    "company_name" : "Infosys",
    "salary_no" : 21000,
    "des" : "Developer",
    "age" : 44,
    "expertise" : "managing ppl",
    "DOB" : ISODate("2000-02-29T00:00:00Z"),
    "email" : "ankita@gmail.com",
    "contact" : 8775223279,
    "address" : [
        {
            "padd" : {
                "city" : "City",
                "state" : "Jordan"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf55fd9f4759b65a8fb3"),
    "empid" : 6,
    "name" : {
        "fname" : "Shreya",
        "lname" : "Kashid"
    },
    "company_name" : "Infosys",
    "salary_no" : 50000,
    "des" : "Senior Developer",
    "age" : 37,
    "expertise" : "completion",
    "DOB" : ISODate("2000-11-04T00:00:00Z"),
    "email" : "shreya@gmail.com",
    "contact" : 8775225679,
    "address" : [
        {
            "padd" : {
                "city" : "satara",
                "state" : "maharashtra"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf60fd9f4759b65a8fb4"),
    "empid" : 7,
    "name" : {
        "fname" : "Sayali",

```

```

        "lname" : "Ovhal"
    },
    "company_name" : "Infosys",
    "salary_no" : 51000,
    "des" : "tester",
    "age" : 34,
    "expertise" : "Talking",
    "DOB" : ISODate("2000-10-19T00:00:00Z"),
    "email" : "abc@gmail.com",
    "contact" : 8755225679,
    "address" : [
        {
            "padd" : {
                "city" : "Dream City",
                "state" : "Mars"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf6afd9f4759b65a8fb5"),
    "empid" : 8,
    "name" : {
        "fname" : "Atulya",
        "lname" : "Nair"
    },
    "company_name" : "",
    "salary_no" : 51000,
    "des" : "Developer",
    "age" : 56,
    "expertise" : "web dev",
    "DOB" : ISODate("2000-12-11T00:00:00Z"),
    "email" : "tulyaaa@gmail.com",
    "contact" : 8755225879,
    "address" : [
        {
            "padd" : {
                "city" : "kochin",
                "state" : "kerela"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdde002fd9f4759b65a8fb6"),
    "empid" : 9,
    "name" : {
        "fname" : "Kaushik",

```

```

        "lname" : "Oswal"
    },
    "company_name" : "Amazon",
    "salary_no" : 21000,
    "des" : "Senior Developer",
    "age" : 15,
    "expertise" : "android dev",
    "DOB" : ISODate("2000-12-11T00:00:00Z"),
    "email" : "Oswal@gmail.com",
    "contact" : 8755225479,
    "address" : [
        {
            "padd" : {
                "city" : "Mirzapur",
                "state" : "UP",
                "Pin_code" : 411101
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdde00efd9f4759b65a8fb7"),
    "empid" : 10,
    "name" : {
        "fname" : "sanyukta",
        "lname" : "adsule"
    },
    "company_name" : "serum",
    "salary_no" : 11999,
    "des" : "tester",
    "age" : 21,
    "expertise" : "app dev",
    "DOB" : ISODate("2000-10-23T00:00:00Z"),
    "email" : "sanyuuuu@gmail.com",
    "contact" : 8755225879,
    "address" : [
        {
            "padd" : {
                "city" : "pune",
                "state" : "Maharashtra",
                "Pin_code" : 411014
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fe06a37020554aad92b42c5"),
    "age" : 25,

```

```

    "company_name" : "TCS",
    "des" : "Tester",
    "salary_no" : 2000,
    "empid" : 15
}

```

6. Find documents where Designation is not equal to "Developer".

```
> db.employee.find({des:{$ne:'Developer'}}).pretty();
```

```

{
  "_id" : ObjectId("5fddded9fd9f4759b65a8fae"),
  "empid" : 1,
  "name" : {
    "fname" : "MACHO",
    "lname" : "MACHKAR"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 31000,
  "des" : "tester",
  "age" : 23,
  "expertise" : "web dev",
  "DOB" : ISODate("2000-01-22T00:00:00Z"),
  "email" : "tejassmachkar@gmail.com",
  "contact" : 9765222269,
  "address" : [
    {
      "padd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
{
  "_id" : ObjectId("5fdddf0ffd9f4759b65a8faf"),
  "empid" : 2,
  "name" : {
    "fname" : "Harshika",
    "lname" : "mishra"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 310000,
  "des" : "HR",
  "age" : 45,
  "expertise" : "Recruitment",
  "DOB" : ISODate("2000-03-15T00:00:00Z"),
  "email" : "harshikaINC@gmail.com",
  "contact" : 8765222269,
  "address" : [
    {
      "padd" : {
        "city" : "Panaji",
        "state" : "Goa"
      }
    },
    {

```



```

        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf20fd9f4759b65a8fb0"),
    "empid" : 3,
    "name" : {
        "fname" : "Sumedh",
        "lname" : "Ovhal"
    },
    "company_name" : "TCS",
    "salary_no" : 2000,
    "des" : "Tester",
    "age" : 25,
    "expertise" : "web dev",
    "DOB" : ISODate("2000-02-06T00:00:00Z"),
    "email" : "sumedh@gmail.com",
    "contact" : 8765222279,
    "address" : [
        {
            "padd" : {
                "city" : "Morocco",
                "state" : "Uganda"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf55fd9f4759b65a8fb3"),
    "empid" : 6,
    "name" : {
        "fname" : "Shreya",
        "lname" : "Kashid"
    },
    "company_name" : "Infosys",
    "salary_no" : 50000,
    "des" : "Senior Developer",
    "age" : 37,
    "expertise" : "completion",
    "DOB" : ISODate("2000-11-04T00:00:00Z"),
    "email" : "shreya@gmail.com",
    "contact" : 8775225679,
    "address" : [
        {
            "padd" : {
                "city" : "satara",
                "state" : "maharashtra"
            }
        },

```

```

        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf60fd9f4759b65a8fb4"),
    "empid" : 7,
    "name" : {
        "fname" : "Sayali",
        "lname" : "Ovhal"
    },
    "company_name" : "Infosys",
    "salary_no" : 51000,
    "des" : "tester",
    "age" : 34,
    "expertise" : "Talking",
    "DOB" : ISODate("2000-10-19T00:00:00Z"),
    "email" : "abc@gmail.com",
    "contact" : 8755225679,
    "address" : [
        {
            "padd" : {
                "city" : "Dream City",
                "state" : "Mars"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdde002fd9f4759b65a8fb6"),
    "empid" : 9,
    "name" : {
        "fname" : "Kaushik",
        "lname" : "Oswal"
    },
    "company_name" : "Amazon",
    "salary_no" : 21000,
    "des" : "Senior Developer",
    "age" : 15,
    "expertise" : "android dev",
    "DOB" : ISODate("2000-12-11T00:00:00Z"),
    "email" : "Oswal@gmail.com",
    "contact" : 8755225479,
    "address" : [
        {
            "padd" : {
                "city" : "Mirzapur",
                "state" : "UP",
                "Pin_code" : 411101
            }
        }
    ]
}

```

```

        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdde00efd9f4759b65a8fb7"),
    "empid" : 10,
    "name" : {
        "fname" : "sanyukta",
        "lname" : "adsule"
    },
    "company_name" : "serum",
    "salary_no" : 11999,
    "des" : "tester",
    "age" : 21,
    "expertise" : "app dev",
    "DOB" : ISODate("2000-10-23T00:00:00Z"),
    "email" : "sanyuuuu@gmail.com",
    "contact" : 8755225879,
    "address" : [
        {
            "padd" : {
                "city" : "pune",
                "state" : "Maharashtra",
                "Pin_code" : 411014
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fe06a37020554aad92b42c5"),
    "age" : 25,
    "company_name" : "TCS",
    "des" : "Tester",
    "salary_no" : 2000,
    "empid" : 15
}

```

7. Find _id, Designation, Address and Name from all documents where Company_name is "Infosys".

```

>
db.employee.find({company_name:"Infosys"},{empid:1,name:1,address:1,des:1,company_name:1}).pretty();
{
    "_id" : ObjectId("5fdddf42fd9f4759b65a8fb2"),

```

```

    "empid" : 5,
    "name" : {
        "fname" : "Ankita",
        "lname" : "Zadoo"
    },
    "company_name" : "Infosys",
    "des" : "Developer",
    "address" : [
        {
            "padd" : {
                "city" : "City",
                "state" : "Jordan"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf55fd9f4759b65a8fb3"),
    "empid" : 6,
    "name" : {
        "fname" : "Shreya",
        "lname" : "Kashid"
    },
    "company_name" : "Infosys",
    "des" : "Senior Developer",
    "address" : [
        {
            "padd" : {
                "city" : "satara",
                "state" : "maharashtra"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf60fd9f4759b65a8fb4"),
    "empid" : 7,
    "name" : {
        "fname" : "Sayali",
        "lname" : "Ovhal"
    },
    "company_name" : "Infosys",
    "des" : "tester",
    "address" : [
        {
            "padd" : {
                "city" : "Dream City",
                "state" : "Mars"
            }
        }
    ]
}

```

```

        }
    },
    {
        "ladd" : {
            "city" : "pune",
            "state" : "maharashtra"
        }
    }
]
}

```

8. Selects all documents in the employee collection where the value of the Designation is either "Developer" or "Tester".

```
> db.employee.find({$or: [{des:'Developer'}, {des:'Tester'}]}).pretty();
```

```

{
  "_id" : ObjectId("5fdddf20fd9f4759b65a8fb0"),
  "empid" : 3,
  "name" : {
    "fname" : "Sumedh",
    "lname" : "Ovhal"
  },
  "company_name" : "TCS",
  "salary_no" : 2000,
  "des" : "Tester",
  "age" : 25,
  "expertise" : "web dev",
  "DOB" : ISODate("2000-02-06T00:00:00Z"),
  "email" : "sumedh@gmail.com",
  "contact" : 8765222279,
  "address" : [
    {
      "padd" : {
        "city" : "Morocco",
        "state" : "Uganda"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}
{
  "_id" : ObjectId("5fdddf2efd9f4759b65a8fb1"),
  "empid" : 4,
  "name" : {
    "fname" : "Shabbir",
    "lname" : "kanchwala"
  },
  "company_name" : "TCS",
  "salary_no" : 2000,
  "des" : "Developer",
  "age" : 28,
  "expertise" : "managing ppl",

```

```

"DOB" : ISODate("2000-11-25T00:00:00Z"),
"email" : "shabbir@gmail.com",
"contact" : 8775222279,
"address" : [
    {
        "padd" : {
            "city" : "Al habibi",
            "state" : "Jordan"
        }
    },
    {
        "ladd" : {
            "city" : "pune",
            "state" : "maharashtra"
        }
    }
]
}
{
    "_id" : ObjectId("5fdddf42fd9f4759b65a8fb2"),
    "empid" : 5,
    "name" : {
        "fname" : "Ankita",
        "lname" : "Zadoo"
    },
    "company_name" : "Infosys",
    "salary_no" : 21000,
    "des" : "Developer",
    "age" : 44,
    "expertise" : "managing ppl",
    "DOB" : ISODate("2000-02-29T00:00:00Z"),
    "email" : "ankita@gmail.com",
    "contact" : 8775223279,
    "address" : [
        {
            "padd" : {
                "city" : "City",
                "state" : "Jordan"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf6afd9f4759b65a8fb5"),
    "empid" : 8,
    "name" : {
        "fname" : "Atulya",
        "lname" : "Nair"
    },
    "company_name" : "",
    "salary_no" : 51000,
    "des" : "Developer",
    "age" : 56,
    "expertise" : "web dev",

```

```

"DOB" : ISODate("2000-12-11T00:00:00Z"),
"email" : "tulyaaa@gmail.com",
"contact" : 8755225879,
"address" : [
  {
    "padd" : {
      "city" : "kochin",
      "state" : "kerela"
    }
  },
  {
    "ladd" : {
      "city" : "pune",
      "state" : "maharashtra"
    }
  }
]
}
{
  "_id" : ObjectId("5fe06a37020554aad92b42c5"),
  "age" : 25,
  "company_name" : "TCS",
  "des" : "Tester",
  "salary_no" : 2000,
  "empid" : 15
}

```

9. Find all document with Exact Match on an Array having Expertise:

```
['Mongodb', 'Mysql', 'Cassandra']
```

```
>db.employee.find({expertise:{$in:['Recruitment','managing ppl']}}).pretty();
```

```

{
  "_id" : ObjectId("5fdddf0ffd9f4759b65a8faf"),
  "empid" : 2,
  "name" : {
    "fname" : "Harshika",
    "lname" : "mishra"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 310000,
  "des" : "HR",
  "age" : 45,
  "expertise" : "Recruitment",
  "DOB" : ISODate("2000-03-15T00:00:00Z"),
  "email" : "harshikaINC@gmail.com",
  "contact" : 8765222269,
  "address" : [
    {
      "padd" : {
        "city" : "Panaji",
        "state" : "Goa"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}

```

```

        }
    ]
}
{
    "_id" : ObjectId("5fdddf2efd9f4759b65a8fb1"),
    "empid" : 4,
    "name" : {
        "fname" : "Shabbir",
        "lname" : "kanchwala"
    },
    "company_name" : "TCS",
    "salary_no" : 2000,
    "des" : "Developer",
    "age" : 28,
    "expertise" : "managing ppl",
    "DOB" : ISODate("2000-11-25T00:00:00Z"),
    "email" : "shabbir@gmail.com",
    "contact" : 8775222279,
    "address" : [
        {
            "padd" : {
                "city" : "Al habibi",
                "state" : "Jordan"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf42fd9f4759b65a8fb2"),
    "empid" : 5,
    "name" : {
        "fname" : "Ankita",
        "lname" : "Zadoo"
    },
    "company_name" : "Infosys",
    "salary_no" : 21000,
    "des" : "Developer",
    "age" : 44,
    "expertise" : "managing ppl",
    "DOB" : ISODate("2000-02-29T00:00:00Z"),
    "email" : "ankita@gmail.com",
    "contact" : 8775223279,
    "address" : [
        {
            "padd" : {
                "city" : "City",
                "state" : "Jordan"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}

```



```

    }
  ]
}

10. Drop Single documents where designation="Developer"
> db.employee.deleteOne({des:'Developer'}); OR
db.employee.remove({des:'Developer'},1);
{ "acknowledged" : true, "deletedCount" : 1 }
> db.employee.find().pretty();
{
  "_id" : ObjectId("5fddded9fd9f4759b65a8fae"),
  "empid" : 1,
  "name" : {
    "fname" : "MACHO",
    "lname" : "MACHKAR"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 31000,
  "des" : "tester",
  "age" : 23,
  "expertise" : "web dev",
  "DOB" : ISODate("2000-01-22T00:00:00Z"),
  "email" : "tejassmachkar@gmail.com",
  "contact" : 9765222269,
  "address" : [
    {
      "padd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    },
    {
      "ladd" : {
        "city" : "pune",
        "state" : "maharashtra"
      }
    }
  ]
}

{
  "_id" : ObjectId("5fdddf0ffd9f4759b65a8faf"),
  "empid" : 2,
  "name" : {
    "fname" : "Harshika",
    "lname" : "mishra"
  },
  "company_name" : "INFOSYS",
  "salary_no" : 310000,
  "des" : "HR",
  "age" : 45,
  "expertise" : "Recruitment",
  "DOB" : ISODate("2000-03-15T00:00:00Z"),
  "email" : "harshikaINC@gmail.com",
  "contact" : 8765222269,
  "address" : [
    {
      "padd" : {
        "city" : "Panaji",
        "state" : "Goa"
      }
    }
  ]
}

```

```

        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf20fd9f4759b65a8fb0"),
    "empid" : 3,
    "name" : {
        "fname" : "Sumedh",
        "lname" : "Ovhal"
    },
    "company_name" : "TCS",
    "salary_no" : 2000,
    "des" : "Tester",
    "age" : 25,
    "expertise" : "web dev",
    "DOB" : ISODate("2000-02-06T00:00:00Z"),
    "email" : "sumedh@gmail.com",
    "contact" : 8765222279,
    "address" : [
        {
            "padd" : {
                "city" : "Morocco",
                "state" : "Uganda"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf42fd9f4759b65a8fb2"),
    "empid" : 5,
    "name" : {
        "fname" : "Ankita",
        "lname" : "Zadoo"
    },
    "company_name" : "Infosys",
    "salary_no" : 21000,
    "des" : "Developer",
    "age" : 44,
    "expertise" : "managing ppl",
    "DOB" : ISODate("2000-02-29T00:00:00Z"),
    "email" : "ankita@gmail.com",
    "contact" : 8775223279,
    "address" : [
        {
            "padd" : {
                "city" : "City",
                "state" : "Jordan"
            }
        }
    ]
}

```

```

        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf55fd9f4759b65a8fb3"),
    "empid" : 6,
    "name" : {
        "fname" : "Shreya",
        "lname" : "Kashid"
    },
    "company_name" : "Infosys",
    "salary_no" : 50000,
    "des" : "Senior Developer",
    "age" : 37,
    "expertise" : "completion",
    "DOB" : ISODate("2000-11-04T00:00:00Z"),
    "email" : "shreya@gmail.com",
    "contact" : 8775225679,
    "address" : [
        {
            "padd" : {
                "city" : "satara",
                "state" : "maharashtra"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf60fd9f4759b65a8fb4"),
    "empid" : 7,
    "name" : {
        "fname" : "Sayali",
        "lname" : "Ovhal"
    },
    "company_name" : "Infosys",
    "salary_no" : 51000,
    "des" : "tester",
    "age" : 34,
    "expertise" : "Talking",
    "DOB" : ISODate("2000-10-19T00:00:00Z"),
    "email" : "abc@gmail.com",
    "contact" : 8755225679,
    "address" : [
        {
            "padd" : {
                "city" : "Dream City",
                "state" : "Mars"
            }
        }
    ]
}

```

```

        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdddf6afd9f4759b65a8fb5"),
    "empid" : 8,
    "name" : {
        "fname" : "Atulya",
        "lname" : "Nair"
    },
    "company_name" : "",
    "salary_no" : 51000,
    "des" : "Developer",
    "age" : 56,
    "expertise" : "web dev",
    "DOB" : ISODate("2000-12-11T00:00:00Z"),
    "email" : "tulyaaa@gmail.com",
    "contact" : 8755225879,
    "address" : [
        {
            "padd" : {
                "city" : "kochin",
                "state" : "kerela"
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fdde002fd9f4759b65a8fb6"),
    "empid" : 9,
    "name" : {
        "fname" : "Kaushik",
        "lname" : "Oswal"
    },
    "company_name" : "Amazon",
    "salary_no" : 21000,
    "des" : "Senior Developer",
    "age" : 15,
    "expertise" : "android dev",
    "DOB" : ISODate("2000-12-11T00:00:00Z"),
    "email" : "Oswal@gmail.com",
    "contact" : 8755225479,
    "address" : [
        {
            "padd" : {
                "city" : "Mirzapur",
                "state" : "UP",
                "Pin_code" : 411101
            }
        }
    ]
}

```

```

        }
    },
    {
        "ladd" : {
            "city" : "pune",
            "state" : "maharashtra"
        }
    }
]
}
{
    "_id" : ObjectId("5fdde00efd9f4759b65a8fb7"),
    "empid" : 10,
    "name" : {
        "fname" : "sanyukta",
        "lname" : "adsule"
    },
    "company_name" : "serum",
    "salary_no" : 11999,
    "des" : "tester",
    "age" : 21,
    "expertise" : "app dev",
    "DOB" : ISODate("2000-10-23T00:00:00Z"),
    "email" : "sanyuuuu@gmail.com",
    "contact" : 8755225879,
    "address" : [
        {
            "padd" : {
                "city" : "pune",
                "state" : "Maharashtra",
                "Pin_code" : 411014
            }
        },
        {
            "ladd" : {
                "city" : "pune",
                "state" : "maharashtra"
            }
        }
    ]
}
{
    "_id" : ObjectId("5fe06a37020554aad92b42c5"),
    "age" : 25,
    "company_name" : "TCS",
    "des" : "Tester",
    "salary_no" : 2000,
    "empid" : 15
}

```

Name: Tejas. R. Machkar

Roll No: 23

Batch: P

PRN: F118 PRN: F18112025

DBMS-Assignment-02

Group B

Q1)

• Questions:

Q1) What's NoSQL? Enlist its benefits:

A1) A NoSQL database provides a mechanism for storage and retrieval of data that's modeled in means other than the tabular relations used in relational databases. Benefit of NoSQL include being able to handle

- 1> Large volumes of structured, semi-structured and unstructured data.
- 2> Agile sprints, quick iterations and frequent code pushes.
- 3> OOP that's easy to use and flexible.
- 4> Efficient scale out architecture instead of expensive monolithic architecture.

Q2) Show relationship of RDBMS terminology with MongoDB

A2) The relationship is as shown:

RDBMS	MongoDB
Database	Database
Table	Collection
Tuple / row	Document
Column	Field
Table Join	Embedded docs
Primary key	-id field.

Q3) Explain CRUD operations in MongoDB with a suitable example.

A3) i) CREATE operations: CREATE/INSERT operations add new documents to a collection. If the collection doesn't currently exist, insert will create the collection.

• Methods: `db.collection.insert()`

`db.collection.insertMany()`

• In MongoDB, all write operations are atomic on the level of a single document.

Eg. `db.users.insertOne({ name: 'Shabz', age: 20, college: 'M.E.S.(O.E)' })`

ii) Read operations: It retrieves documents from a collection, i.e. queries a collection for documents. MongoDB provides the following methods to read from a collection. Syntax: `db.collection.find()`;

You can specify query filters or criteria that identify the documents to return.

Eg. `db.users.find({ age: { $lt: 18 } },`

`{ name: 1, address: 1 }, limit(5);`

iii) UPDATE operations: These operations modify existing documents in a collection. MongoDB provides the following methods to update docs of a collection.

• `db.collection.updateOne()`;

• `db.collection.updateMany()`;

• `db.collection.replaceOne()`;

- In MongoDB, update operations target a single collection.

Eg. `db.users.updateMany(`

`{ age: { $lt: 18 } }`

← update filter

`{ $set: { status: 'rejected' } }`

← update action

)

iv) Delete operations: These operations remove a document from a collection.

• Methods: `db.collection.deleteOne()`; `db.collection.deleteMany()`;

• Delete operation target a single collection.

Eg. `db.user.deleteMany({ status: 'rejected' })` ← delete filter

Q4) What are the advantages of MongoDB over RDBMS?

A4) i) Schema Less: MongoDB is document based and the documents have no definite schema and can be different from one another inside the same collection.

2) Structure of a single object is clear.

3) No complex joins.

4) Deep query ability.

5) Ease of scale-out.

6) Conversion / mapping of application object to database objects not needed.

7) Uses internal memory for storing the working set, enabling faster access of data.

Q5) Enlist basic MongoDB datatypes.

A-5)

• Double	• Object Id	• Symbol
• String	• Boolean	• JavaScript with code.
• Object	• Date	• Integer
• Array	• Null	• Timestamp
• Undefined	• Regular expression	• Min key
• Binary Data	• JavaScript	• Max key

Q6) What's the difference between save and update method?

A-6) i) Update: modifies an existing document matched with your query args. If there's no such matching document, we use upsert.

• upsert: When set to false, nothing happens when no such document exists.

• upsert: When set to true, New document gets created with contents equal to query and update parameters.

2) Save: Doesn't allow any query-params. If id exists is specified / no matching doc. exists, it inserts the document as a new one.

Page No.: _____

Date: __/__/__

Q7) What's object _id in MongoDB?

A.7) The object-id class is the primary key for a MongoDB document and is usually found in _id field in an inserted document.

Q8) List different methods to insert documents.

A.8) To insert a document in MongoDB, one needs to use insert() or save() method.

- Insert : db.collection_name.insert(document)

- Save : db.collection_name.save(document)