

Mongodb-3 Design and Develop MongoDB Queries using CRUD operations: Create Employee collection by considering following Fields: i. Emp_id : Number ii. Name: Embedded Doc (FName, LName) iii. Company Name: String iv. Salary: Number v. Designation: String vi. Age: Number vii. Expertise: Array viii. DOB: String or Date ix. Email id: String x. Contact: String xi. Address: Array of Embedded Doc (PAddr, LAddr) Insert at least 5 documents in collection by considering above attribute and execute following queries:

1. Creates a new document if no document in the employee collection contains {Designation: "Tester", Company_name: "TCS", Age: 25}
2. Finds all employees working with Company_name: "TCS" and increase their salary by 2000.
3. 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".
4. Find employee details who are working as "Developer" or "Tester".
5. Drop Single documents where designation="Developer".
6. Count number of documents in employee collection.

```
use companyDB
db.employee.insertMany([
  {
    Emp_id: 101,
    Name: { FName: "Amit", LName: "Sharma" },
    Company_name: "Infosys",
    Salary: 45000,
    Designation: "Developer",
    Age: 28,
    Expertise: ["MongoDB", "NodeJS", "Express"],
    DOB: ISODate("1997-05-12"),
    Email: "amit.sharma@infosys.com",
    Contact: "9876543210",
    Address: [
      { PAddr: "Pune", LAddr: "Bangalore", city: "Pune", Pin_code: "411001" }
    ]
  },
  {
    Emp_id: 102,
    Name: { FName: "Sneha", LName: "Patil" },
    Company_name: "TCS",
    Salary: 32000,
    Designation: "Tester",
    Age: 25,
    Expertise: ["Java", "Selenium", "MySQL"],
    DOB: ISODate("1999-04-18"),
    Email: "sneha.patil@tcs.com",
    Contact: "9123456789",
    Address: [
      { PAddr: "Mumbai", LAddr: "Chennai", city: "Mumbai", Pin_code: "400001" }
    ]
  },
  {
    Emp_id: 103,
    Name: { FName: "Rahul", LName: "Kumar" },
    Company_name: "Wipro",
    Salary: 35000,
    Designation: "Developer",
    Age: 30,
    Expertise: ["Python", "Django", "React"],
    DOB: ISODate("1995-01-15"),
    Email: "rahul.kumar@wipro.com",
    Contact: "9012345678",
    Address: [
      { PAddr: "Mumbai", LAddr: "Mumbai", city: "Mumbai", Pin_code: "400002" }
    ]
  },
  {
    Emp_id: 104,
    Name: { FName: "Neha", LName: "Kumar" },
    Company_name: "TCS",
    Salary: 38000,
    Designation: "Tester",
    Age: 27,
    Expertise: ["Java", "Selenium", "MySQL"],
    DOB: ISODate("1998-03-10"),
    Email: "nehakumar@tcs.com",
    Contact: "9123456789",
    Address: [
      { PAddr: "Chennai", LAddr: "Chennai", city: "Chennai", Pin_code: "600001" }
    ]
  },
  {
    Emp_id: 105,
    Name: { FName: "Vishal", LName: "Kumar" },
    Company_name: "Wipro",
    Salary: 40000,
    Designation: "Developer",
    Age: 32,
    Expertise: ["Python", "Django", "React"],
    DOB: ISODate("1993-07-20"),
    Email: "vishalkumar@wipro.com",
    Contact: "9012345678",
    Address: [
      { PAddr: "Chennai", LAddr: "Chennai", city: "Chennai", Pin_code: "600002" }
    ]
  }
])
```

```
        Emp_id: 103,
        Name: { FName: "Rahul", LName: "Deshmukh" },
        Company_name: "TCS",
        Salary: 40000,
        Designation: "Developer",
        Age: 30,
        Expertise: ["Python", "MongoDB", "MySQL"],
        DOB: ISODate("1995-01-15"),
        Email: "rahul.deshmukh@tcs.com",
        Contact: "9988776655",
        Address: [
            { PAddr: "Nagpur", LAddr: "Hyderabad", city: "Nagpur", Pin_code: "440001" }
        ]
    },
    {
        Emp_id: 104,
        Name: { FName: "Priya", LName: "Nair" },
        Company_name: "Wipro",
        Salary: 28000,
        Designation: "Designer",
        Age: 26,
        Expertise: ["UI/UX", "Figma", "Photoshop"],
        DOB: ISODate("1998-07-20"),
        Email: "priya.nair@wipro.com",
        Contact: "9090909090",
        Address: [
            { PAddr: "Kochi", LAddr: "Bangalore", city: "Kochi", Pin_code: "682001" }
        ]
    },
    {
        Emp_id: 105,
        Name: { FName: "Vikas", LName: "Joshi" },
        Company_name: "Infosys",
        Salary: 60000,
        Designation: "Team Lead",
        Age: 35,
        Expertise: ["MongoDB", "MySQL", "Cassandra"],
        DOB: ISODate("1989-09-10"),
        Email: "vikas.joshi@infosys.com",
        Contact: "9876001234",
        Address: [
            { PAddr: "Pune", LAddr: "Pune", city: "Pune", Pin_code: "411001" }
        ]
    }
];
```

```
Step 7: Create a new document if not exists
db.employee.updateOne(
  { Designation: "Tester", Company_name: "TCS", Age: 25 },
  {
    $setOnInsert: {
      Emp_id: 106,
      Name: { FName: "Kiran", LName: "Verma" },
      Salary: 30000,
      Expertise: ["Java", "Selenium"],
      DOB: ISODate("1999-08-10"),
      Email: "kiran.verma@tcs.com",
      Contact: "9012345678",
      Address: [{ PAddr: "Delhi", LAddr: "Gurgaon", city: "Delhi",
      Pin_code: "110001" }]
    }
  },
  { upsert: true }
);
```

```
db.employee.find({
  Designation: "Tester",
  Company_name: "TCS",
  Age: 25
}).pretty();
```

```
Query 2 - Increase salary by 2000 for employees working in TCS
db.employee.updateMany(
{ Company_name: "TCS" },
{ $inc: { Salary: 2000 } })
db.employee.find({ Company_name: "TCS" });
```

```
Query 3 - Find documents where Address has embedded doc with city="Pune" and
Pin_code="411001"
db.employee.find({
  Address: { $elemMatch: { city: "Pune", Pin_code: "411001" } }
});
```

```
Query 4 - Find employees who are "Developer" or "Tester"
db.employee.find({
  Designation: { $in: ["Developer", "Tester"] } });
});
```

```
Query 5 - Drop single document where Designation="Developer"
db.employee.deleteOne({ Designation: "Developer" });
```

```
Query 6-Count number of documents in employee collection
db.employee.countDocuments();

db.employee.find().pretty() #to view
```