

## I N D E X

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**1) Create a database named with 'mydb', Create a collection named 'employees', Insert 15 documents in it.**

**Code:**

```
use("mydb");
```

**Screenshot:**

```
> use mydb
switched to db mydb
>
```

```
db.createCollection("employees");
```

**Screenshot:**

```
> db.createCollection("employees");
{ "ok" : 1 }
>
```

```
db.employees.insert([
```

```
{
  empno:2001,
  name:[
    {
      firstname:"Chintan",
      lastname:"Bhimani"
    }
  ],
  emailID:"bhimanicaa@gmail.com",
  contact:1234567890,
  designation:"Web Developer",
```

```
birthday:new Date("2003-03-31"),  
joiningdate:new Date("2020-01-01"),  
salary:20000,  
department:[  
  {  
    name:"IT",  
    discription:"Information Technology"  
  }  
,  
address:[{  
  city:"Ahmedabad",  
  state:"Gujarat",  
  landmark:"Vesu",  
  pincode:395001  
}],  
{  
  empno:2002,  
  name:[{  
    firstname:"Rahul",  
    lastname:"Makvana"  
  }],  
  emailID:"rahul111@gmail.com",
```

```
contact:6754534567,  
  
designtion:"Police Officer",  
  
birthday:new Date("1988-02-11"),  
  
joiningdate:new Date("2000-11-27"),  
  
salary:54000,  
  
department:{  
  
    name:"Police",  
  
    discription:"Police Department"  
  
}},  
  
address:{  
  
    city:"Surat",  
  
    state:"Gujarat",  
  
    landmark:"Adajan",  
  
    pincode:395011  
  
    }  
  
},  
  
{  
  
    empno:2003,  
  
    name:{  
  
        firstname:"Nikunj",  
  
        lastname:"Ghori"  
  
    },  
  
    emailID:"nikunj32@gmail.com",
```

```
contact:9765694596,  
  
designation:"Assistant Professor",  
  
birthday:new Date("1995-11-11"),  
  
joiningdate:new Date("2015-06-01"),  
  
salary:15000,  
  
department:{  
  
    name:"School",  
  
    discription:"School Department"  
  
},  
  
address:{  
  
    city:"Vadodara",  
  
    state:"Gujarat",  
  
    landmark:"Adajan",  
  
    pincode:399101  
  
}  
  
},  
  
{  
  
    empno:2004,  
  
    name:[{  
  
        firstname:"Minal",  
  
        lastname:"Ramani"  
  
    }],  
  
    emailID:"minal02@gmail.com",
```

```
contact:5676567545,  
  
designion:"Software Devloper",  
  
birthday:new Date("1999-09-04"),  
  
joiningdate:new Date("2019-01-01"),  
  
salary:56999,  
  
department:{  
  
    name:"IT",  
  
    discription:"IT Department"  
  
}},  
  
address:{  
  
    city:"Mumbai",  
  
    state:"Maharashtra",  
  
    landmark:"Bandra",  
  
    pincode:4001069  
  
    }  
  
},  
  
{  
  
    empno:2005,  
  
    name:{  
  
        firstname:"Dhruvi",  
  
        lastname:"Patel"  
  
    }  
  
},  
  
emailID:"dhruvi@gmail.com",
```

```
contact:234565437,  
  
designtion:"Manager",  
  
birthday:new Date("1976-05-06"),  
  
joiningdate:new Date("2003-10-01"),  
  
salary:91000,  
  
department:{  
  
    name:"AMT",  
  
    discription:"Social Service"  
  
}},  
  
address:{  
  
    city:"Junagadh",  
  
    landmark:"Gir",  
  
    pincode:564345  
  
}  
  
},  
  
{  
  
    empno:2006,  
  
    name:{  
  
        firstname:"Kirti",  
  
        lastname:"Mital"  
  
    }},  
  
    emailID:"mitalisha000@gmail.com",  
  
    contact:098786745,
```



```
designtion:"Tester",  
  
birthday:new Date("1988-02-11"),  
  
joiningdate:new Date("2000-11-27"),  
  
salary:24000,  
  
department:{  
  
    name:"Find Technology",  
  
    discription:"Checking Software Depaetment"  
  
}},  
  
address:{  
  
    city:"Dilhi",  
  
    state:"Uttar Pradesh",  
  
    landmark:"West Delhi",  
  
    pincode:888888  
  
}}  
  
},  
  
{  
  
    empno:2007,  
  
    name:{  
  
        firstname:"Chirag",  
  
        lastname:"Jasani"  
  
    }},  
  
    emailID:"chirag01@gmail.com",  
  
    contact:0005605656,
```

```
designtion:"Owner",  
  
birthday:new Date("1992-12-17"),  
  
joiningdate:new Date("2017-12-01"),  
  
salary:null,  
  
department:{  
  
    name:"The Food Club",  
  
    discription:"Hotel"  
  
}},  
  
address:{  
  
    city:"Mumbai",  
  
    state:"Maharashtra",  
  
    landmark:"Juhu",  
  
    pincode:400376  
  
}}  
  
},  
  
{  
  
    empno:2008,  
  
    name:{  
  
        firstname:"Akshay",  
  
        lastname:"Kaneriya"  
  
    }},  
  
    emailID:"ak@gmail.com",  
  
    contact:978656789,
```

```
designtion:"Software Devloper",  
  
birthday:new Date("2001-11-26"),  
  
joiningdate:new Date("2020-03-01"),  
  
salary:70000,  
  
department:[{  
  
    name:"IT",  
  
    discription:"IT Department"  
  
}],  
  
address:[{  
  
    city:"Surat",  
  
    state:"Gujarat",  
  
    landmark:"Vesu",  
  
    pincode:395001  
  
}]  
  
},  
  
{  
  
    empno:2009,  
  
    name:[{  
  
        firstname:"Dhruvik",  
  
        lastname:"Vekariya"  
  
    }],  
  
    emailID:"dhukiii@gmail.com",  
  
    contact:123456543,
```

```
designtion:"IAS Officer",  
  
birthday:new Date("2003-01-28"),  
  
joiningdate:new Date("2022-01-01"),  
  
salary:90000,  
  
department:{  
  
    name:"Police",  
  
    discription:"Police Department"  
  
}},  
  
address:{  
  
    city:"Mumbai",  
  
    state:"Maharashtra",  
  
    landmark:"Bandra",  
  
    pincode:401069  
  
}}  
  
},  
  
{  
  
    empno:2010,  
  
    name:{  
  
        firstname:"Darshan",  
  
        lastname:"Thummar"  
  
    }},  
  
    emailID:"darshan007@gmail.com",  
  
    contact:1230070076,
```

```
designtion:"Seles Manager",  
  
birthday:new Date("2003-04-12"),  
  
joiningdate:new Date("2022-09-01"),  
  
salary:21000,  
  
department:{  
  
    name:"HTC Texttile",  
  
    discription:"Texttile Department"  
  
}},  
  
address:{  
  
    city:"Surat",  
  
    state:"Gujarat",  
  
    landmark:"Varachha",  
  
    pincode:395006  
  
}  
  
});
```

**Screenshot:**

```
BulkWriteResult({  
  "writeErrors" : [ ],  
  "writeConcernErrors" : [ ],  
  "nInserted" : 10,  
  "nUpserted" : 0,  
  "nMatched" : 0,  
  "nModified" : 0,  
  "nRemoved" : 0,  
  "upserted" : [ ]  
})  
>
```

## 2) Write a MongoDB query to displays all documents from the employee's collection.

**Code:**

```
db.employees.find().pretty()
```

**Screenshot:**

```

> db.employees.find();
{ "id" : ObjectId("63261281b5bf7921fc1c69b5"), "empno" : 2001, "name" : [ { "firstname" : "Chintan", "lastname" : "Bhimani" } ], "emailID" : "bhimanicaa@gmail.com", "contact" : 1234567890, "designation" : "Web Developer", "birthday" : ISODate("2003-03-31T00:00:00Z"), "joiningdate" : ISODate("2020-01-01T00:00:00Z"), "salary" : 20000, "department" : [ { "name" : "IT", "discretion" : "Information Technology" } ], "address" : [ { "city" : "Ahmedabad", "state" : "Gujarat", "landmark" : "Vesu", "pincode" : 395001 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69b6"), "empno" : 2002, "name" : [ { "firstname" : "Rahul", "lastname" : "Makvana" } ], "emailID" : "rahul111@gmail.com", "contact" : 6754534567, "designation" : "Police Officer", "birthday" : ISODate("1988-02-11T00:00:00Z"), "joiningdate" : ISODate("2000-11-27T00:00:00Z"), "salary" : 54000, "department" : [ { "name" : "Police", "discretion" : "Police Department" } ], "address" : [ { "city" : "Surat", "state" : "Gujarat", "landmark" : "Adajan", "pincode" : 395011 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69b7"), "empno" : 2003, "name" : [ { "firstname" : "Nikunj", "lastname" : "Ghori" } ], "emailID" : "nikunj32@gmail.com", "contact" : 9765694596, "designation" : "Assistant Professor", "birthday" : ISODate("1995-11-11T00:00:00Z"), "joiningdate" : ISODate("2015-06-01T00:00:00Z"), "salary" : 15000, "department" : [ { "name" : "School", "discretion" : "School Department" } ], "address" : [ { "city" : "Vadodara", "state" : "Gujarat", "landmark" : "Adajan", "pincode" : 399101 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69b8"), "empno" : 2004, "name" : [ { "firstname" : "Minal", "lastname" : "Ramani" } ], "emailID" : "minal02@gmail.com", "contact" : 5676567545, "designation" : "Software Developer", "birthday" : ISODate("1999-09-04T00:00:00Z"), "joiningdate" : ISODate("2019-01-01T00:00:00Z"), "salary" : 56999, "department" : [ { "name" : "IT", "discretion" : "IT Department" } ], "address" : [ { "city" : "Mumbai", "state" : "Maharashtra", "landmark" : "Bandra", "pincode" : 4001069 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69b9"), "empno" : 2005, "name" : [ { "firstname" : "Dhruvi", "lastname" : "Patel" } ], "emailID" : "dhruvi@gmail.com", "contact" : 234565437, "designation" : "Manager", "birthday" : ISODate("1976-05-06T00:00:00Z"), "joiningdate" : ISODate("2003-10-01T00:00:00Z"), "salary" : 91000, "department" : [ { "name" : "AMT", "discretion" : "Social Service" } ], "address" : [ { "city" : "Junagadh", "landmark" : "Gir", "pincode" : 564345 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69ba"), "empno" : 2006, "name" : [ { "firstname" : "Kirti", "lastname" : "Mital" } ], "emailID" : "mitalisha00@gmail.com", "contact" : 98786745, "designation" : "Tester", "birthday" : ISODate("1988-02-11T00:00:00Z"), "joiningdate" : ISODate("2000-11-27T00:00:00Z"), "salary" : 24000, "department" : [ { "name" : "Find Technology", "discretion" : "Checking Software Department" } ], "address" : [ { "city" : "Dilhi", "state" : "Uttar Pradesh", "landmark" : "West Delhi", "pincode" : 888888 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69bb"), "empno" : 2007, "name" : [ { "firstname" : "Chirag", "lastname" : "Jasani" } ], "emailID" : "chirag01@gmail.com", "contact" : 1510318, "designation" : "Owner", "birthday" : ISODate("1992-12-17T00:00:00Z"), "joiningdate" : ISODate("2017-12-01T00:00:00Z"), "salary" : null, "department" : [ { "name" : "The Food Club", "discretion" : "Hotel" } ], "address" : [ { "city" : "Mumbai", "state" : "Maharashtra", "landmark" : "Juhu", "pincode" : 400076 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69bc"), "empno" : 2008, "name" : [ { "firstname" : "Akshay", "lastname" : "Kaneriyia" } ], "emailID" : "ak@gmail.com", "contact" : 978656789, "designation" : "Software Developer", "birthday" : ISODate("2001-11-26T00:00:00Z"), "joiningdate" : ISODate("2020-03-01T00:00:00Z"), "salary" : 70000, "department" : [ { "name" : "IT", "discretion" : "IT Department" } ], "address" : [ { "city" : "Surat", "state" : "Gujarat", "landmark" : "Vesu", "pincode" : 395001 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69bd"), "empno" : 2009, "name" : [ { "firstname" : "Dhruvik", "lastname" : "Vekariya" } ], "emailID" : "dhukiii@gmail.com", "contact" : 123456543, "designation" : "IAS Officer", "birthday" : ISODate("2003-01-28T00:00:00Z"), "joiningdate" : ISODate("2022-01-01T00:00:00Z"), "salary" : 90000, "department" : [ { "name" : "Police", "discretion" : "Police Department" } ], "address" : [ { "city" : "Mumbai", "state" : "Maharashtra", "landmark" : "Bandra", "pincode" : 4001069 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69be"), "empno" : 2010, "name" : [ { "firstname" : "Darshan", "lastname" : "Thummar" } ], "emailID" : "darshan007@gmail.com", "contact" : 1230070075, "designation" : "Sales Manager", "birthday" : ISODate("2003-04-12T00:00:00Z"), "joiningdate" : ISODate("2022-09-01T00:00:00Z"), "salary" : 21000, "department" : [ { "name" : "HTC Texttile", "discretion" : "Texttile Department" } ], "address" : [ { "city" : "Surat", "state" : "Gujarat", "landmark" : "Varachha", "pincode" : 395006 } ] }

```

## 3) Write a MongoDB query to displays name, joining date and salary of all documents from the employee's collection.

**Code:**

```
db.employees.find({},{name:1,j_date:1,salary:1,_id:0}).pretty()
```

**Screenshot:**

```

> db.employees.find({},{_id:0,name:1,joiningdate:1,salary:1});
{ "name" : [ { "firstname" : "Chintan", "lastname" : "Bhimani" } ], "joiningdate" : ISODate("2020-01-01T00:00:00Z"), "salary" : 20000 }
{ "name" : [ { "firstname" : "Rahul", "lastname" : "Makvana" } ], "joiningdate" : ISODate("2000-11-27T00:00:00Z"), "salary" : 54000 }
{ "name" : [ { "firstname" : "Nikunj", "lastname" : "Ghori" } ], "joiningdate" : ISODate("2015-06-01T00:00:00Z"), "salary" : 15000 }
{ "name" : [ { "firstname" : "Minal", "lastname" : "Ramani" } ], "joiningdate" : ISODate("2019-01-01T00:00:00Z"), "salary" : 56999 }
{ "name" : [ { "firstname" : "Dhruvi", "lastname" : "Patel" } ], "joiningdate" : ISODate("2003-10-01T00:00:00Z"), "salary" : 91000 }
{ "name" : [ { "firstname" : "Kirti", "lastname" : "Mital" } ], "joiningdate" : ISODate("2000-11-27T00:00:00Z"), "salary" : 24000 }
{ "name" : [ { "firstname" : "Chirag", "lastname" : "Jasani" } ], "joiningdate" : ISODate("2017-12-01T00:00:00Z"), "salary" : null }
{ "name" : [ { "firstname" : "Akshay", "lastname" : "Kaneriyia" } ], "joiningdate" : ISODate("2020-03-01T00:00:00Z"), "salary" : 70000 }
{ "name" : [ { "firstname" : "Dhruvik", "lastname" : "Vekariya" } ], "joiningdate" : ISODate("2022-01-01T00:00:00Z"), "salary" : 90000 }
{ "name" : [ { "firstname" : "Darshan", "lastname" : "Thummar" } ], "joiningdate" : ISODate("2022-09-01T00:00:00Z"), "salary" : 21000 }

```

**4) Write a MongoDB query to displays first name, last name and email id of all documents from the employee's collection whose salary is more than 20000.**

**Code:**

```
db.employees.find({}, {_id:0,name:1,joiningdate:1,salary:1});
```

**Screenshot:**

```
> db.employees.find({"salary":{$gt:20000}},{"_id":0,"name":1,"emailID":1});
{ "name" : [ { "firstname" : "Rahul", "lastname" : "Makvana" } ], "emailID" : "rahul111@gmail.com" }
{ "name" : [ { "firstname" : "Minal", "lastname" : "Ramani" } ], "emailID" : "minal02@gmail.com" }
{ "name" : [ { "firstname" : "Dhruvi", "lastname" : "Patel" } ], "emailID" : "dhruvi@gmail.com" }
{ "name" : [ { "firstname" : "Kirti", "lastname" : "Mital" } ], "emailID" : "mitalisha000@gmail.com" }
{ "name" : [ { "firstname" : "Akshay", "lastname" : "Kaneriyaa" } ], "emailID" : "ak@gmail.com" }
{ "name" : [ { "firstname" : "Dhruvik", "lastname" : "Vekariya" } ], "emailID" : "dhukiii@gmail.com" }
{ "name" : [ { "firstname" : "Darshan", "lastname" : "Thummar" } ], "emailID" : "darshan007@gmail.com" }
>
```

**5) Write a MongoDB query to displays first name, last name, email id and contact number of all documents from the employees collection whose salary is 20000 and working as an 'Web Developer'.**

**Code:**

```
db.employees.find({"salary":{$gt:20000}},{"_id":0,"name":1,"emailID":1});
```

**Screenshot:**

```
> db.employees.find({'$and':[{"salary":{$eq:20000}},{"designation":{$eq:"Web Developer"}}]},{"_id":0,"name":1,"emailID":1,"contact":1}).pretty();
{
  "name" : [
    {
      "firstname" : "Chintan",
      "lastname" : "Bhimani"
    }
  ],
  "emailID" : "bhimanicaa@gmail.com",
  "contact" : 1234567890
}
>
```



6) Write a MongoDB query to displays all documents from the employee's collection whose first character of their first name is 'K'.

**Code:**

```
db.employees.find({"name.firstname":/^K/},{ "_id":0,"name.firstname":1}).pretty();
```

**Screenshot:**

```
> db.employees.find({"name.firstname":/^K/},{ "_id":0,"name.firstname":1}).pretty();
{ "name" : [ { "firstname" : "Kirti" } ] }
>
```

7) Write a MongoDB query to displays all documents from the employee's collection in the ascending order of their birth year.

**Code:**

```
db.employees.find().sort({birthday:1});
```

**Screenshot:**

```
> db.employees.find().sort({birthday:1});
{ "_id" : ObjectId("63261281b5bf7921fc1c69b9"), "empno" : 2005, "name" : [ { "firstname" : "Dhruvi", "lastname" : "Patel" } ], "emailID" : "dhruvi@gmail.com", "contact" : 234565437, "designation" : "Manager", "birthday" : ISODate("1976-05-06T00:00:00Z"), "joiningdate" : ISODate("2003-10-01T00:00:00Z"), "salary" : 91000, "department" : [ { "name" : "AMT", "discritcion" : "Social Service" } ], "address" : [ { "city" : "Junagadh", "landmark" : "Gir", "pincode" : 564345 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69b6"), "empno" : 2002, "name" : [ { "firstname" : "Rahul", "lastname" : "Makvana" } ], "emailID" : "rahul111@gmail.com", "contact" : 6754534567, "designation" : "Police Officer", "birthday" : ISODate("1988-02-11T00:00:00Z"), "joiningdate" : ISODate("2000-11-27T00:00:00Z"), "salary" : 54000, "department" : [ { "name" : "Police", "discritcion" : "Police Department" } ], "address" : [ { "city" : "Surat", "state" : "Gujarat", "landmark" : "Adajan", "pincode" : 395011 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69ba"), "empno" : 2006, "name" : [ { "firstname" : "Kirti", "lastname" : "Mital" } ], "emailID" : "mitalisha000@gmail.com", "contact" : 98786745, "designation" : "Tester", "birthday" : ISODate("1988-02-11T00:00:00Z"), "joiningdate" : ISODate("2000-11-27T00:00:00Z"), "salary" : 24000, "department" : [ { "name" : "Find Technology", "discritcion" : "Checking Software Deapetment" } ], "address" : [ { "city" : "Dilhi", "state" : "Uttar Pradesh", "landmark" : "West Delhi", "pincode" : 888888 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69bb"), "empno" : 2007, "name" : [ { "firstname" : "Chirag", "lastname" : "Jasani" } ], "emailID" : "chirag01@gmail.com", "contact" : 1510318, "designation" : "Owner", "birthday" : ISODate("1992-12-17T00:00:00Z"), "joiningdate" : ISODate("2017-12-01T00:00:00Z"), "salary" : null, "department" : [ { "name" : "The Food Club", "discritcion" : "Hotel" } ], "address" : [ { "city" : "Mumbai", "state" : "Maharashtra", "landmark" : "Juhu", "pincode" : 400376 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69b7"), "empno" : 2003, "name" : [ { "firstname" : "Nikunj", "lastname" : "Ghori" } ], "emailID" : "nikunj32@gmail.com", "contact" : 9765694596, "designation" : "Assistant Professor", "birthday" : ISODate("1995-11-11T00:00:00Z"), "joiningdate" : ISODate("2015-06-01T00:00:00Z"), "salary" : 15000, "department" : [ { "name" : "School", "discritcion" : "School Department" } ], "address" : [ { "city" : "Vadodara", "state" : "Gujarat", "landmark" : "Adajan", "pincode" : 399101 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69b8"), "empno" : 2004, "name" : [ { "firstname" : "Minal", "lastname" : "Ramani" } ], "emailID" : "minal02@gmail.com", "contact" : 5676567545, "designation" : "Software Developer", "birthday" : ISODate("1999-09-04T00:00:00Z"), "joiningdate" : ISODate("2019-01-01T00:00:00Z"), "salary" : 56999, "department" : [ { "name" : "IT", "discritcion" : "IT Department" } ], "address" : [ { "city" : "Mumbai", "state" : "Maharashtra", "landmark" : "Bandra", "pincode" : 4001069 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69bc"), "empno" : 2008, "name" : [ { "firstname" : "Akshay", "lastname" : "Kaneriyaa" } ], "emailID" : "ak@gmail.com", "contact" : 978656789, "designation" : "Software Developer", "birthday" : ISODate("2001-11-26T00:00:00Z"), "joiningdate" : ISODate("2020-03-01T00:00:00Z"), "salary" : 70000, "department" : [ { "name" : "IT", "discritcion" : "IT Department" } ], "address" : [ { "city" : "Surat", "state" : "Gujarat", "landmark" : "Vesu", "pincode" : 395001 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69bd"), "empno" : 2009, "name" : [ { "firstname" : "Dhruvik", "lastname" : "Vekariya" } ], "emailID" : "dhukiii@gmail.com", "contact" : 123456543, "designation" : "IAS Officer", "birthday" : ISODate("2003-01-28T00:00:00Z"), "joiningdate" : ISODate("2022-01-01T00:00:00Z"), "salary" : 90000, "department" : [ { "name" : "Police", "discritcion" : "Police Department" } ], "address" : [ { "city" : "Mumbai", "state" : "Maharashtra", "landmark" : "Bandra", "pincode" : 401069 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69b5"), "empno" : 2001, "name" : [ { "firstname" : "Chintan", "lastname" : "Bhimani" } ], "emailID" : "bhimanicaa@gmail.com", "contact" : 1234567890, "designation" : "Web Developer", "birthday" : ISODate("2003-03-31T00:00:00Z"), "joiningdate" : ISODate("2020-01-01T00:00:00Z"), "salary" : 20000, "department" : [ { "name" : "IT", "discritcion" : "Information Technology" } ], "address" : [ { "city" : "Ahmedabad", "state" : "Gujarat", "landmark" : "Vesu", "pincode" : 395001 } ] }
{ "_id" : ObjectId("63261281b5bf7921fc1c69be"), "empno" : 2010, "name" : [ { "firstname" : "Darshan", "lastname" : "Thummar" } ], "emailID" : "darshan007@gmail.com", "contact" : 1230070076, "designation" : "Seles Manager", "birthday" : ISODate("2003-04-12T00:00:00Z"), "joiningdate" : ISODate("2022-09-01T00:00:00Z"), "salary" : 21000, "department" : [ { "name" : "HTC Texttile", "discritcion" : "Texttile Department" } ], "address" : [ { "city" : "Surat", "state" : "Gujarat", "landmark" : "Varachha", "pincode" : 395006 } ] }
```



**8) Write a MongoDB query to displays top 5 documents from the employee's collection earning highest.**

**Code:**

```
db.employees.find().sort({"salary":-1}).limit(5);
```

**Screenshot:**

```
> db.employees.find().sort({"salary":-1}).limit(5);
{ "id" : ObjectId("63261281b5bf7921fc1c69b9"), "empno" : 2805, "name" : [ { "firstname" : "Dhruvi", "lastname" : "Patel" } ], "emailID" : "dhruvi@gmail.com", "contact" : 234565437, "designation" : "Manager", "birthday" : ISODate("1976-05-06T00:00:00Z"), "joiningdate" : ISODate("2003-10-01T00:00:00Z"), "salary" : 91000, "department" : [ { "name" : "AMT", "discription" : "Social Service" } ], "address" : [ { "city" : "Junagadh", "landmark" : "Gir", "pincode" : 564345 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69bd"), "empno" : 2809, "name" : [ { "firstname" : "Dhruvik", "lastname" : "Vekariya" } ], "emailID" : "dhukiii@gmail.com", "contact" : 123456543, "designation" : "IAS Officer", "birthday" : ISODate("2003-01-20T00:00:00Z"), "joiningdate" : ISODate("2022-01-01T00:00:00Z"), "salary" : 90000, "department" : [ { "name" : "Police", "discription" : "Police Department" } ], "address" : [ { "city" : "Mumbai", "state" : "Maharashtra", "landmark" : "Bandra", "pincode" : 401069 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69bc"), "empno" : 2808, "name" : [ { "firstname" : "Akshay", "lastname" : "Kaneriyia" } ], "emailID" : "ak@gmail.com", "contact" : 978656789, "designation" : "Software Developer", "birthday" : ISODate("2001-11-26T00:00:00Z"), "joiningdate" : ISODate("2020-03-01T00:00:00Z"), "salary" : 70000, "department" : [ { "name" : "IT", "discription" : "IT Department" } ], "address" : [ { "city" : "Surat", "state" : "Gujarat", "landmark" : "Vesu", "pincode" : 395001 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69b8"), "empno" : 2804, "name" : [ { "firstname" : "Minal", "lastname" : "Ramani" } ], "emailID" : "minal02@gmail.com", "contact" : 5678567545, "designation" : "Software Developer", "birthday" : ISODate("1999-09-04T00:00:00Z"), "joiningdate" : ISODate("2019-01-01T00:00:00Z"), "salary" : 56999, "department" : [ { "name" : "IT", "discription" : "IT Department" } ], "address" : [ { "city" : "Mumbai", "state" : "Maharashtra", "landmark" : "Bandra", "pincode" : 4001069 } ] }
{ "id" : ObjectId("63261281b5bf7921fc1c69b6"), "empno" : 2802, "name" : [ { "firstname" : "Rahul", "lastname" : "Makvana" } ], "emailID" : "rahul111@gmail.com", "contact" : 6754534567, "designation" : "Police Officer", "birthday" : ISODate("1988-02-11T00:00:00Z"), "joiningdate" : ISODate("2000-11-27T00:00:00Z"), "salary" : 54000, "department" : [ { "name" : "Police", "discription" : "Police Department" } ], "address" : [ { "city" : "Surat", "state" : "Gujarat", "landmark" : "Adajan", "pincode" : 395011 } ] }
```

**9) Write a MongoDB query to remove all the documents whose pincode is 395001.**

**Code:**

```
db.employees.deleteMany({"address.pincode":395001});
```

**Screenshot:**

```
> db.employees.deleteMany({"address.pincode":395001});
{ "acknowledged" : true, "deletedCount" : 2 }
>
```

**10) Write a MongoDB query to displays all documents from the employees collection born on or before 1990.**

**Code:**

```
db.employees.find({"birthday":{"$lte:ISODate("1990-12-31")}},{"birthday":1});
```

**Screenshot:**

```
> db.employees.find({"birthday":{"$lte:ISODate("1990-12-31")}},{"birthday":1});
{ "_id" : ObjectId("63261281b5bf7921fc1c69b6"), "birthday" : ISODate("1988-02-11T00:00:00Z") }
{ "_id" : ObjectId("63261281b5bf7921fc1c69b9"), "birthday" : ISODate("1976-05-06T00:00:00Z") }
{ "_id" : ObjectId("63261281b5bf7921fc1c69ba"), "birthday" : ISODate("1988-02-11T00:00:00Z") }
>
```

**11) Install Nodejs, Create React one react application with “Myfirstapp” name and Run it**

**Code:**

```
npx create-react-app myfirstapp
```

```
cd myfirstapp
```

```
npm start
```

**App.js**

```
import logo from './logo.svg';
```

```
import './App.css';
```

```
function App() {
```

```
  return (
```

```
    <div className="App">
```

```
      <header className="App-header">
```

```
        <img src={logo} className="App-logo" alt="logo" />
```

```
      <p>
```

Edit `src/App.js` and save to reload.

`</p>`

`<a`

`className="App-link"`

`href="https://reactjs.org"`

`target="_blank"`

`rel="noopener noreferrer"`

`>`

`MyFirstapp`

`</a>`

`</header>`

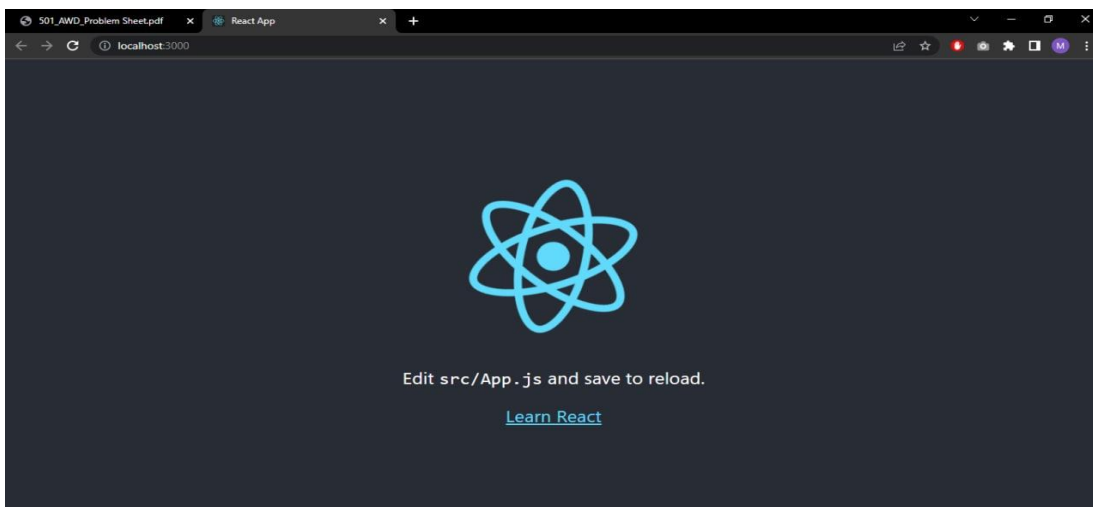
`</div>`

`);`

`}`

`export default App;`

### Screenshot:



**12) Write a React program to create Header, Navbar using Bootstrap****Code:****App.js**

```
import 'bootstrap/dist/css/bootstrap.min.css';

import {Nav, Navbar, Container, NavDropdown} from 'react-bootstrap';

function App() {

  return (

    <Navbar bg="primary" expand="md">

      <Container>

        <Navbar.Brand href="#home">Navbar Brand</Navbar.Brand>

        <Navbar.Toggle aria-controls="basic-navbar-nav" />

        <Navbar.Collapse id="basic-navbar-nav">

          <Nav className="me-auto">

            <Nav.Link href="#home">Home</Nav.Link>

            <Nav.Link href="#link">Link</Nav.Link>

            <NavDropdown title="Dropdown" id="basic-nav-dropdown">

              <NavDropdown.Item href="#action/3.1">Dropdown Item 1</NavDropdown.Item>

              <NavDropdown.Item href="#action/3.2">Dropdown Item 2</NavDropdown.Item>

              <NavDropdown.Item href="#action/3.3">Dropdown Item 3</NavDropdown.Item>

              <NavDropdown.Divider />

              <NavDropdown.Item href="#action/3.4">Another Item</NavDropdown.Item>

            </NavDropdown>

          </Nav>

        </Navbar.Collapse>

      </Navbar>

    </Container>

  )
}
```

```

</Navbar.Collapse>

</Container>

</Navbar>

);

}

export default App;

```

### Screenshot:



**13) Write a react program to create Form with Name, address, Gender, Subjects (dropdown box), Hobbies (check box) submit the form and alert the inputted data.**

**Code:**

**App.js**

```

function BasicExample() {

  return (

    <Form>

      <Form.Group className="mb-3" controlId="formBasicName">

        <Form.Label>Name</Form.Label>

```

```
<Form.Control type="name" placeholder="Enter Your Name" />

</Form.Group>

<Form.Group className="mb-3" controlId="formBasicAddress">

  <Form.Label>Address</Form.Label>

  <Form.Control type="text" placeholder="Enter Your Address" />

</Form.Group>

<Form.Group className="mb-3" controlId="formBasicGender">

  <Form.Label>Gender</Form.Label>

  <Form.Control type="text" placeholder="Enter Your Gender" />

</Form.Group>

<Form.Group className="mb-3">

  <Form.Label>Subject</Form.Label>

  <Form.Select disabled>

    <option>Science</option>

  </Form.Select>

</Form.Group>

<Form.Group className="mb-3">

  <Form.Label>Hobbies</Form.Label>

  <Form.Check type="checkbox" label="Cricket" />

  <Form.Check type="checkbox" label="Football" />

</Form.Group>

<Button variant="primary" type="submit">
```

Submit

</Button>

</Form>

);

}

export default BasicExample;

### Screenshot:

Name

Address

Gender

Subject

Hobbies

☐ Cricket

☐ Football

Submit

### 14 ) Write a React program to count button click event using 'useState' hook.

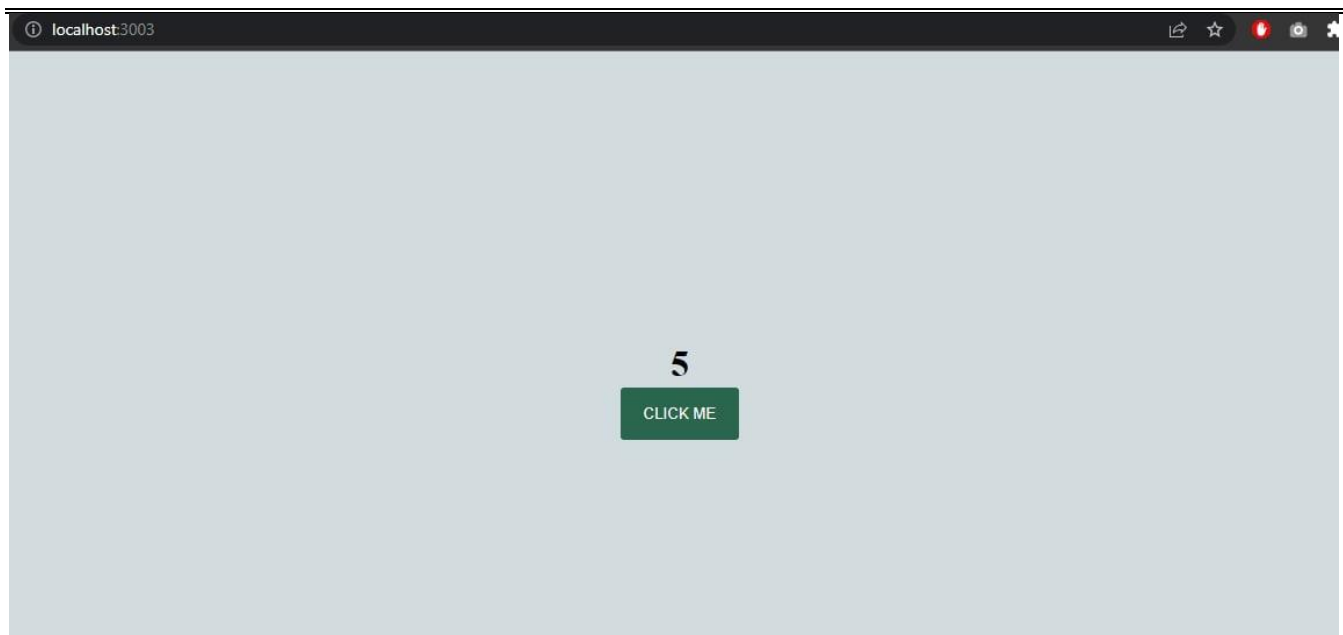
Code :

#### Count.js

```
import React, { useState } from "react";
import ReactDOM from "react-dom";
import "../src/App.css";
function App() {
  // State to store count value
  const [count, setCount] = useState(0);
  // Function to increment count by 1
  const incrementCount = () => {
```

```
// Update state with incremented value
setCount(count + 1);
};
return (
  <div className="app">
    <button onClick={incrementCount}>Click Here</button>
    {count}
  </div>
);
}
const rootElement = document.getElementById("root");
ReactDOM.render(<App />, rootElement);

export default App;
```

**Screenshot:**



**15) Write a React program to create Timer using 'useEffect' hook.****Code:****CountDownTimer.js**

```
import React from 'react';

import './style';

const Timer = () => {

  return (

    <div className="container">

      <div className="time">

        <span className="minute">00</span>

        <span>:</span>

        <span className="second">00</span>

      </div>

      <div className="buttons">

        <button onClick={() => null} className="start">Start</button>

        <button onClick={() => null} className="reset">Reset</button>

      </div>

    </div>

  )

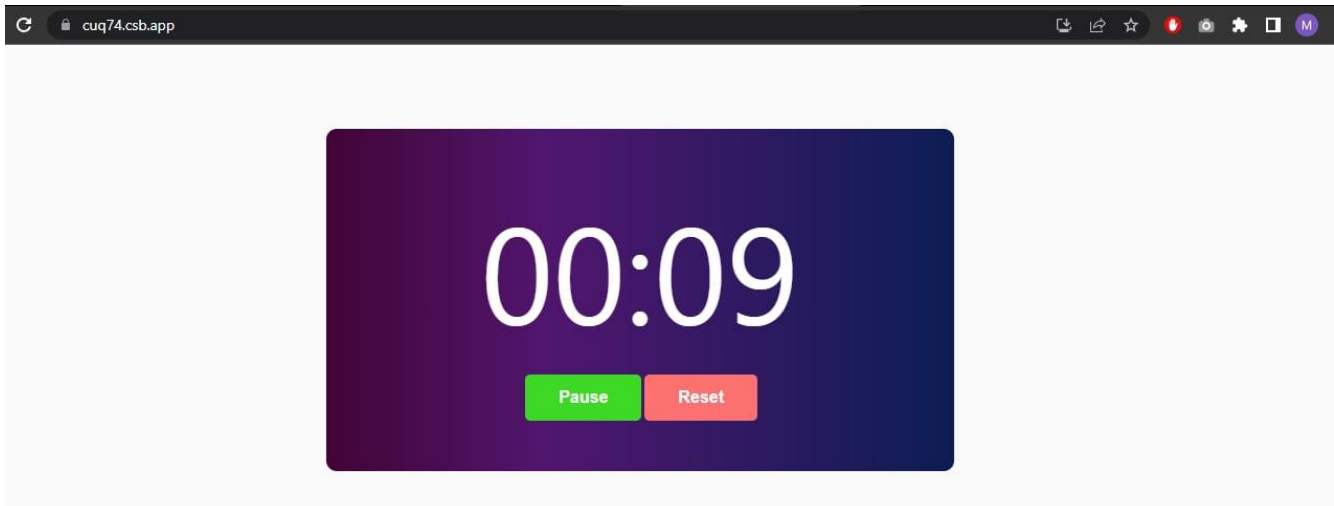
}

export default Timer;
```

**App.js :-**

```
import React, { useState, useEffect } from 'react';
```

```
const Timer = () => {  
  
  function stopTimer() {  
  
    setIsActive(false);  
  
    setCounter(0);  
  
    setSecond('00');  
  
    setMinute('00')  
  
  }  
  
  return (  
  
    <div className="container">  
  
      <div className="time">  
  
        <span className="minute">{minute}</span>  
  
        <span>:</span>  
  
        <span className="second">{second}</span>  
  
      </div>  
  
      <div className="buttons">  
  
        <button onClick={() => setIsActive(!isActive)} className="start">  
  
          {isActive ? "Pause": "Start"}  
  
        </button>  
  
        <button onClick={stopTimer} className="reset">Reset</button>  
  
      </div>  
  
    </div>  
  
  )  
}
```

**Screenshot:****16) Create Single page application (Website) using Angular js.****Code:**

Index.html:

```
<html lang="en">

<head>

  <meta charset="UTF-8">

  <title>Single page web app using Angularjs</title>

  <script src="//ajax.googleapis.com/ajax/libs/angularjs/1.3.3/angular.min.js"></script>

  <script src="//cdnjs.cloudflare.com/ajax/libs/angular.js/1.3.3/angular-route.min.js"> </script>

  <script src="script.js"></script>

</head>

<body ng-app="single-page-app">
```

```
<div ng-controller="cfgController">

<div>

    <ul>

        <li><a href="#">Home</a></li>

        <li><a href="#/about">About us</a></li>

    </ul>

</div>

</div>

<br/>

<div ng-view>

</div>

</div>

</body>

</html>

Script.js

var app=angular.module('single-page-app',['ngRoute']);

app.config(function($routeProvider){

    $routeProvider

        .when('/',{

            templateUrl: 'home.html'

        })

        .when('/about',{

            templateUrl: 'about.html'

        });

});
```

```
});  
  
app.controller('cfgController',function($scope){  
  
});
```