

Practical no:-1

Creating database employee

Create collections emp_personal_details with emp_id, emp_name, emp_address,

emp_DOB, emp_age, emp_mobilenumber

```
employee> db.createCollection("employee");
```

```
{ ok: 1 }
```

```
employee> db.employee.insertOne({
```

```
...
```

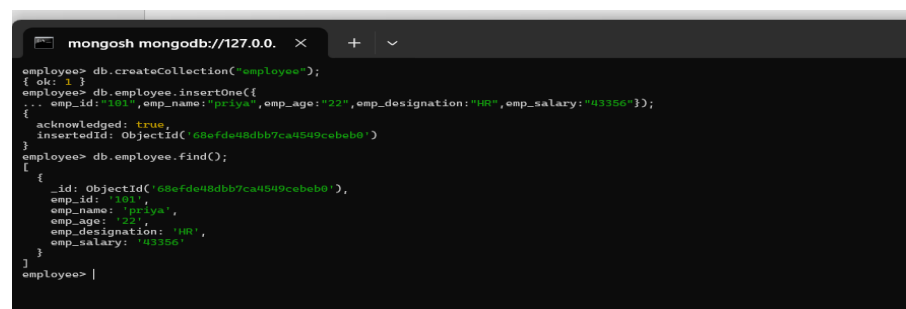
```
emp_id:"101",emp_name:"priya",emp_age:"22",emp_designation:"HR",emp_salary:"43356"});
```

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

```
//To show collections
```

```
show collections
```

Output:-



```
mongosh mongod://127.0.0.1:27017
> use employee
> createCollection('employee')
{ ok: 1 }
> insertOne({ emp_id: '101', emp_name: 'priya', emp_age: '22', emp_designation: 'HR', emp_salary: '43356' })
{ acknowledged: true, insertedId: ObjectId('68efde48dbb7ca4549cebeb0') }
> find()
[ { _id: ObjectId('68efde48dbb7ca4549cebeb0'), emp_id: '101', emp_name: 'priya', emp_age: '22', emp_designation: 'HR', emp_salary: '43356' } ]
>
```

Practical No.02

Create another collection emp_professional_details with emp_id, emp_name, designation, salary, incentive, working_hours

```
test> use employee
```

```
switched to db employee
```

```
employee> db.createCollection("emp_personal_details");
```

```
{ ok: 1 }
```

```
employee> db.emp_personal_details.insertMany([
```

```
... emp_id:"101",
```

```
... emp_name:"priya",
```

```
... emp_designation:"software engg",
```

```
... salary:40000,
```

```
... incentive:5000,
```

```
... w_hours:8
```

```
... },
```

```
... {
```

```
... emp_id:102,
```

```
... emp_name:"sakshi",
```

```
... emp_designation:"HR",
```

```
... salary:30000,
```

```
... incentive:4000,
```

```
... w_hours:7
```

```
... },
```

```
... {  
... emp_id:103,  
... emp_name:"riya",  
... emp_designation:"Manager",  
... salary:60000,  
... incentive:5500,  
... w_hours:9  
... },  
... {  
... emp_id:104,  
... emp_name:"sayali",  
... emp_designation:"Excutive",  
... salary:30000,  
... incentive:3000,  
... w_hours:6  
... },  
... {  
... emp_id:105,  
... emp_name:"baghyashri",  
... emp_designation:"web developer",  
... salary:60000,  
... incentive:6000,  
... w_hours:9  
... {  
... emp_id:106,  
... emp_name:"mohini",  
... emp_designation:"manager",  
... salary:40500,
```

```

... incentive:7500,

... w_hours:6

... },

... {

... emp_id:107,

... emp_name:"prachi",

... emp_designation:"HR",

... salary:20000,

... incentive:4000,

... w_houra:8

... }

... ]

... );

```

Output:-

```

{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('68ac4471904beb8f87eec4a9'),
    '1': ObjectId('68ac4471904beb8f87eec4aa'),
    '2': ObjectId('68ac4471904beb8f87eec4ab'),
    '3': ObjectId('68ac4471904beb8f87eec4ac'),
    '4': ObjectId('68ac4471904beb8f87eec4ad'),
    '5': ObjectId('68ac4471904beb8f87eec4ae'),
    '6': ObjectId('68ac4471904beb8f87eec4af')
  }
}
employee>

```

```

employee> db.emp_personal_details.find()
[
  {
    _id: ObjectId('68ac4471904beb8f87eec4a9'),
    emp_id: '101',
    emp_name: 'priya',
    emp_designation: 'software engg',
    salary: 40000,
    incentive: 5000,
    w_hours: 8
  },
  {
    _id: ObjectId('68ac4471904beb8f87eec4aa'),
    emp_id: '102',
    emp_name: 'sakshi',
    emp_designation: 'HR',
    salary: 30000,
    incentive: 4000,
    w_hours: 7
  },
  {
    _id: ObjectId('68ac4471904beb8f87eec4ab'),
    emp_id: '103',
    emp_name: 'priya',
    emp_designation: 'Manager',
    salary: 60000,
    incentive: 5500,
    w_hours: 9
  },
  {

```

Practical No.3

Insert 10 records in collection emp_personal_details and emp_professional_details

2. Show all the employees having designation manager

3. Show all the employees having salary 6000

```
test> use employee
```

```
switched to db employee
```

```
employee> db.createCollection("emp_personal1");
```

```
{ ok: 1 }
```

```
employee> db.emp_personal1.insertMany([
```

```
id:1,
```

```
name:"mayuri",
```

```
add: "pune" ,
```

```
dob:new Date("2000-05-20"),
```

```
age:66,
```

```
mob_no:2345232221},
```

```
{
```

```
id:2,
```

```
name:"Akanksha",
```

```
add: "Nashik" ,
```

```
dob:new Date("2010-05-10"),
```

```
age:33,
```

```
mob_no:9343232221},
```

```
{
```

id:3,
name:"Raj",
add: "patna" ,
dob:new Date("2011-05-10"),
age:65,
mob_no:9343442221},

{

id:4,
name:"Akansh",
add: "thane" ,
dob:new Date("2010-12-10"),
age:25,
mob_no:9343232222},

{

id:5,
name:"Yash",
add: "Nashik" ,
dob:new Date("2012-05-10"),
age:12,
mob_no:9343232221},

```
{  
id:6,  
name:"Piyush",  
add: "jalgoan" ,  
dob:new Date("2008-05-10"),  
age:70,  
mob_no:9343232221},
```

```
{  
id:7,  
name:"Chetan",  
add: "chopda" ,  
dob:new Date("2012-05-10"),  
age:30,  
mob_no:9353232221},
```

```
{  
id:8,  
name:"laxmi",  
add: "jalgoan" ,  
dob:new Date("2010-03-10"),  
age:44,  
mob_no:9343272221},
```

```
{  
id:9,  
name:"Ritik",  
add: "thane" ,  
dob:new Date("2020-05-10"),  
age:13,
```

```
mob_no:9643232221},
```

```
{
```

```
id:10,
```

```
name:"Minal",
```

```
add: "Nashik" ,
```

```
dob:new Date("2010-04-10"),
```

```
age:28,
```

```
mob_no:9443232221}})
```

```
employee>db.emp_personal1.find();
```

```
employee> db.createCollection("emp_professional");
```

```
{ ok: 1 }
```

```
employee> db.emp_professional.insertMany([
```

```
id:1,
```

```
name:"mayuri",
```

```
add: "pune" ,
```

```
desig: "manager",
```

```
salary:60000,
```

```
incentive:5000,
```

```
work:44 },
```

```
{
```

```
id:2,
```

```
name:"mayu",
```

```
add: "nashik" ,
```

```
desig: "accountant",
```

```
salary:30000,
```

```
incentive:3000,
```

```
work:60 },
```

```
{
```


id:3,
name:"rahul",
add: "nagpur" ,
desig: "HOD",
salary:90000,
incentive:3000,
work:80 },

{

id:4,
name:"Aachal",
add: "Mumbai" ,
desig: "accountant",
salary:80000,
incentive:7000,
work:30 },

id:3,
name:"mayuri",
add: "pune" ,
desig: "manager",
salary:60000,
incentive:5000,
work:44 },

{

id:4,
name:"mayu",
add: "nashik" ,
desig: "accountant",
salary:30000,
incentive:3000,

```
work:60 },  
{  
id:5,  
name:"Raj",  
add: "Nashik" ,  
desig: "manager",  
salary:40000,  
incentive:5000,  
work:44 },
```

```
{  
id:6,  
name:"Prachi",  
add: "Jalgoan" ,  
desig: "Principle",  
salary:70000,  
incentive:3000,  
work:60 },
```

```
{  
id:7,  
name:"Kajal",  
add: "pune" ,  
desig: "manager",  
salary:80000,  
incentive:5000,  
work:44 },
```

```
{  
id:8,  
name:"Shruti",  
add: "Thane" ,
```

```
  design: "Shweta",  
  salary: 10000,  
  incentive: 4000,  
  work: 60 },
```

```
  id: 9,  
  name: "Piyush",  
  add: "Mumbai" ,  
  design: "manager",  
  salary: 80000,  
  incentive: 5000,  
  work: 20 },
```

```
{  
  id: 10,  
  name: "Sapna",  
  add: "nashik" ,  
  design: "accountant",  
  salary: 50000,  
  incentive: 3000,  
  work: 60 },
```

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

```
employee>db.emp__professional.find({design:"accountant"});
```

```

employee> db.emp_professional.find({desig:"doctor"});
[
  {
    _id: ObjectId('686f80ad344d559809748a60'),
    id: 102,
    name: 'Akshu',
    desig: 'doctor',
    salary: 40000,
    incentive: 5000,
    work: 6
  },
  {
    _id: ObjectId('686f82a5344d559809748a62'),
    id: 102,
    name: 'mayu',
    desig: 'doctor',
    salary: 70000,
    incentive: 5000,
    work: 8
  },
  {
    _id: ObjectId('686f82a5344d559809748a67'),
    id: 107,
    name: 'Rahul',
    desig: 'doctor',
    salary: 60000,
    incentive: 5000,
    work: 6
  }
]

```

employee>db.emp_professional.find({salary:60000});

```

employee> db.emp_professional.find({salary:60000});
[
  {
    _id: ObjectId('686f80ad344d559809748a5f'),
    id: 101,
    name: 'mayuri',
    desig: 'eng',
    salary: 60000,
    incentive: 5000,
    work: 5
  },
  {
    _id: ObjectId('686f82a5344d559809748a61'),
    id: 101,
    name: 'mayuri',
    desig: 'eng',
    salary: 60000,
    incentive: 5000,
    work: 5
  },
  {
    _id: ObjectId('686f82a5344d559809748a67'),
    id: 107,
    name: 'Rahul',
    desig: 'doctor',
    salary: 60000,
    incentive: 5000,
    work: 6
  }
]

```

Practical No.4

Update the collection emp_personal_details , add field status and set it to retired where age is greater than 60.

2. Update collection emp_professional_details, give incentive 5000 to employees

whose working hours is greater than 45 per week

3. Add 1000 to the salary employee whose designation is accountant

```
employee> db.Emp.insertMany([
... {emp_id:"1",emp_name:"priya",emp_add:"101 plot
nehrunagar",emp_age:"22",emp_mobno:"5364575344"},
... {emp_id:"2",emp_name:"sakshi",emp_add:"102 plot
shivajinagar",emp_age:"64",emp_mobno:"764346745"}
... {emp_id:"3",emp_name:"sayali",emp_add:"202 city
apartment",emp_age:"45",emp_mobno:"568732866"},
... {emp_id:"4",emp_name:"riya",emp_add:"404 main
street",emp_age:"68",emp_mobno:"335657246"}]);
```

```
employee> db.Emp.insertMany([
... {emp_id:"1",emp_name:"priya",emp_add:"101 plot nehrunagar",emp_age:"22",emp_mobno:"5364575344"},
... {emp_id:"2",emp_name:"sakshi",emp_add:"102 plot shivajinagar",emp_age:"64",emp_mobno:"764346745"},
... {emp_id:"3",emp_name:"sayali",emp_add:"202 city apartment",emp_age:"45",emp_mobno:"568732866"},
... {emp_id:"4",emp_name:"riya",emp_add:"404 main street",emp_age:"68",emp_mobno:"335657246"}]);
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('68afd943dbb7ca4509ceb5eaf'),
    '1': ObjectId('68afd943dbb7ca4509ceb5eaf'),
    '2': ObjectId('68afd943dbb7ca4509ceb5eaf'),
    '3': ObjectId('68afd943dbb7ca4509ceb5eaf')
  }
}
employee>
```

```
employee> db.Emp.find();
{
  _id: ObjectId('68afd943dbb7ca4509ceb5eaf'),
  emp_id: '1',
  emp_name: 'priya',
  emp_add: '101 plot nehrunagar',
  emp_age: '22',
  emp_mobno: '5364575344'
},
{
  _id: ObjectId('68afd943dbb7ca4509ceb5eaf'),
  emp_id: '2',
  emp_name: 'sakshi',
  emp_add: '102 plot shivajinagar',
  emp_age: '64',
  emp_mobno: '764346745'
},
{
  _id: ObjectId('68afd943dbb7ca4509ceb5eaf'),
  emp_id: '3',
  emp_name: 'sayali',
  emp_add: '202 city apartment',
  emp_age: '45',
  emp_mobno: '568732866'
},
{
  _id: ObjectId('68afd943dbb7ca4509ceb5eaf'),
  emp_id: '4',
  emp_name: 'riya',
  emp_add: '404 main street',
  emp_age: '68',
  emp_mobno: '335657246'
}
employee>
```

```
employee> db.Emp.updateMany({emp_age:{gt:60}},{$set:{status:"retired"}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
employee>
```

db.emp_personal_details.find()

Practical No:-5

Create index on emp_id in collection emp_professional_details

2. Create multiple index on emp_id,emp_name in collection emp_professional_details

```
employee> db.emp_professional.createIndex({id:1});
```

```
employee> db.emp_professional.createIndex({id:1});
id_1
employee> db.emp_professional.find();
[
  {
    _id: ObjectId('686f80ad344d559809748a5f'),
    id: 101,
    name: 'mayuri',
    desig: 'eng',
    salary: 60000,
    incentive: 5000,
    work: 5
  },
  {
    _id: ObjectId('686f80ad344d559809748a60'),
    id: 102,
    name: 'Akshu',
    desig: 'doctor',
    salary: 40000,
    incentive: 5000,
    work: 6
  },
  {
    _id: ObjectId('686f82a5344d559809748a61'),
    id: 101,
    name: 'mayuri',
    desig: 'eng',
    salary: 60000,
    incentive: 5000,
    work: 5
  },
  {
    _id: ObjectId('686f82a5344d559809748a62'),
    id: 102,
    name: 'mayu',
    desig: 'doctor',
    salary: 70000,
    incentive: 5000,
    work: 8
  },
  {
    _id: ObjectId('686f82a5344d559809748a63'),
    id: 103,
    name: 'tejas',
    desig: 'HOD',
    salary: 70000,
    incentive: 5000,
    work: 5
  },
]
```

```
employee> db.emp_professional.createIndex({id:1,name:1});
```

```
employee> db.emp_professional.createIndex({id:1,name:1});
id_1_name_1
employee> db.emp_professional.find();
[
  {
    _id: ObjectId('606f80ad344d559809748a5f'),
    id: 101,
    name: 'mayuri',
    desig: 'eng',
    salary: 60000,
    incentive: 5000,
    work: 5
  },
  {
    _id: ObjectId('606f80ad344d559809748a60'),
    id: 102,
    name: 'Akshu',
    desig: 'doctor',
    salary: 40000,
    incentive: 5000,
    work: 6
  },
  {
    _id: ObjectId('606f82a5344d559809748a61'),
    id: 101,
    name: 'mayuri',
    desig: 'eng',
    salary: 60000,
    incentive: 5000,
    work: 5
  },
  {
    _id: ObjectId('606f82a5344d559809748a62'),
    id: 102,
    name: 'mayu',
    desig: 'doctor',
    salary: 70000,
    incentive: 5000,
    work: 8
  },
  {
    _id: ObjectId('606f82a5344d559809748a63'),
    id: 103,
    name: 'tejas',
    desig: 'HOD',
    salary: 70000,
    incentive: 5000,
    work: 5
  },
]
```

Practical No:- 7

Use unwind command and show the employees whose mobile number is stored in

array

2. Use skip command to skip first 3 records and display rest of records

3. Use limit command to show only first four records of collection

7 a

```
employee> db.emp_personal1.insertOne({
... id:1,
... name:"mayuri",
... add: "pune" ,
... dob:new Date("2000-05-20"),
... age:66,
... mob_no:2345232221,
... mob_no:5678654686 })
{
  acknowledged: true,
  insertedId: ObjectId('688b3600f063a561c6748a60')
}
employee> db.emp_personal1.aggregate([
... { $unwind:"$mob_no"}
... ])
```

Output:


```
[
  {
    _id: ObjectId('688b3527f063a561c6748a5f'),
    id: 1,
    name: 'mayuri',
    add: 'pune',
    dob: ISODate('2000-05-20T00:00:00.000Z'),
    age: 66,
    mob_no: 2345232221
  },
  {
    _id: ObjectId('688b3600f063a561c6748a60'),
    id: 1,
    name: 'mayuri',
    add: 'pune',
    dob: ISODate('2000-05-20T00:00:00.000Z'),
    age: 66,
    mob_no: 5678654686
  }
]
employee>
```

7.b

```
employee> db.emp_personal1.aggregate([
... { $skip:3}
... ])
```

```
[
  {
    _id: ObjectId('6870cb30c6feebfd88748a62'),
    id: 4,
    name: 'minal ',
    add: 'patna ',
    DOB: ISODate('2009-05-21T18:30:00.000Z'),
    age: 25,
    mob: 2345678120
  },
  {
    _id: ObjectId('6870cb30c6feebfd88748a63'),
    id: 5,
    name: 'raj ',
    add: 'mumbai ',
    DOB: ISODate('2005-03-19T18:30:00.000Z'),
    age: 12,
    mob: 2345678121
  },
  {
    _id: ObjectId('6870cb30c6feebfd88748a64'),
    id: 6,
    name: 'aditya ',
    add: 'kolkata ',
    DOB: ISODate('2000-08-19T18:30:00.000Z'),
    age: 70,
    mob: 2345678122,
    status: 'retire'
  }
]
```

7.c

```
employee> db.emp_personal1.aggregate([
... { $limit:4}
... ])
```

```
[
  {
    _id: ObjectId('6870cb30c6feebfd88748a5f'),
    id: 1,
    name: 'mayuri ',
    add: 'pune ',
    DOB: ISODate('2000-05-19T18:30:00.000Z'),
    age: 33,
    mob: 2345678122
  },
  {
    _id: ObjectId('6870cb30c6feebfd88748a60'),
    id: 2,
    name: 'mayu ',
    add: 'nashik ',
    DOB: ISODate('2010-04-19T18:30:00.000Z'),
    age: 60,
    mob: 2345678122
  },
  {
    _id: ObjectId('6870cb30c6feebfd88748a61'),
    id: 3,
    name: 'Akanksha ',
    add: 'thane ',
    DOB: ISODate('2022-04-30T18:30:00.000Z'),
    age: 65,
    mob: 2345678122,
    status: 'retire'
  },
  {
    _id: ObjectId('6870cb30c6feebfd88748a62'),
    id: 4,
    name: 'minal ',
    add: 'patna ',
    DOB: ISODate('2009-05-21T18:30:00.000Z'),
    age: 25,
    mob: 2345678120
  }
]
employee>
```

Practical no:-10

1. Write a MongoDB query to display all the documents in the collection restaurants

2. Write a MongoDB query to display the fields, restaurant_id, name, borough and

cuisine for all the documents in the collection restaurant

use restaurant

switched to db restaurant

```
restaurant> db.createCollection("restaurant_details");
```

```
{ ok: 1 }
```

```
restaurant> db.restaurant_details.insertMany([
```

```
... {res_id:"1001",name:"Willaims  
grill",borough:"Bronx",cuisine:"American",grades:[{grade:"A",score:92}]},
```

```
... {res_id:"1002",name:"Wilton  
bbq",borough:"Queens",cuisine:"Italian",grades:[{grade:"B",score:88}]},
```

```
... {res_id:"1003",name:"Ces  
delihs",borough:"Manhattan",cuisine:"Chinese",grades:[{grade:"C",score:78}]
```

```
... },
```

```
... {res_id:"1004",name:"Regal  
taste",borough:"Brooklyn",cuisine:"Italian",grades:[{grade:"B",score:95}]},
```

```
... {res_id:"1005",name:"Tnadoori  
flame",borough:"Bronx",cuisine:"Indian",grades:[{grade:"A",score:90}]},
```

```
... {res_id:"1006",name:"The Regal  
diner",borough:"Queens",cuisine:"American",grades:[{grade:"A",score:85}]},
```

```
... {res_id:"1007",name:"Spicy hub",borough:"Staten  
Island",cuisine:"Thai",grades:[{grade:"B",score:98}]},
```

```
... {res_id:"1008",name:"Desi  
Express",borough:"Manhattan",cuisine:"Indian",grades:[{grade:"C",score:10}]})
```

OutPut:-

```
mongosh mongodb://127.0.0.1:27017/restaurant
The server generated these startup warnings when booting
2025-10-15T18:44:20.000+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
-----

test> use restaurant
switched to db restaurant
restaurant> db.createCollection("restaurant_details");
{ ok: 1 }
restaurant> db.restaurant_details.insertMany([
... {res_id:"1001",name:"Williams grill",borough:"Bronx",cuisine:"American",grades:[{grade:"A",score:92}],
... {res_id:"1002",name:"Wilton bbq",borough:"Queens",cuisine:"Italian",grades:[{grade:"B",score:88}],
... {res_id:"1003",name:"Ces delihs",borough:"Manhattan",cuisine:"Chinese",grades:[{grade:"C",score:78}]
... },
... {res_id:"1004",name:"Regal taste",borough:"Brooklyn",cuisine:"Italian",grades:[{grade:"B",score:95}],
... {res_id:"1005",name:"Tnadoori flame",borough:"Bronx",cuisine:"Indian",grades:[{grade:"A",score:90}],
... {res_id:"1006",name:"The Regal diner",borough:"Queens",cuisine:"American",grades:[{grade:"A",score:85}],
... {res_id:"1007",name:"Spicy hub",borough:"Staten Island",cuisine:"Thai",grades:[{grade:"B",score:98}],
... {res_id:"1008",name:"Desi Express",borough:"Manhattan",cuisine:"Indian",grades:[{grade:"C",score:10}]]]
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('68efb7eadbb7ca4549cebea4'),
    '1': ObjectId('68efb7eadbb7ca4549cebea5'),
    '2': ObjectId('68efb7eadbb7ca4549cebea6'),
    '3': ObjectId('68efb7eadbb7ca4549cebea7'),
    '4': ObjectId('68efb7eadbb7ca4549cebea8'),
    '5': ObjectId('68efb7eadbb7ca4549cebea9'),
    '6': ObjectId('68efb7eadbb7ca4549cebeaa'),
    '7': ObjectId('68efb7eadbb7ca4549cebeab')
  }
}
restaurant> |
```

```
mongosh mongodb://127.0.0.1:27017/restaurant
restaurant> db.restaurant_details.find();

{
  _id: ObjectId('68efb7eadbb7ca4549cebea4'),
  res_id: '1001',
  name: 'Williams grill',
  borough: 'Bronx',
  cuisine: 'American',
  grades: [ { grade: 'A', score: 92 } ]
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea5'),
  res_id: '1002',
  name: 'Wilton bbq',
  borough: 'Queens',
  cuisine: 'Italian',
  grades: [ { grade: 'B', score: 88 } ]
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea6'),
  res_id: '1003',
  name: 'Ces delihs',
  borough: 'Manhattan',
  cuisine: 'Chinese',
  grades: [ { grade: 'C', score: 78 } ]
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea7'),
  res_id: '1004',
  name: 'Regal taste',
  borough: 'Brooklyn',
  cuisine: 'Italian',
  grades: [ { grade: 'B', score: 95 } ]
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea8'),
  res_id: '1005',
  name: 'Tnadoori flame',
  borough: 'Bronx',
  cuisine: 'Indian',
  grades: [ { grade: 'A', score: 90 } ]
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea9'),
  res_id: '1006',
  name: 'The Regal diner',
  borough: 'Queens',
  cuisine: 'American',
  grades: [ { grade: 'A', score: 85 } ]
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebeaa'),
  res_id: '1007',
  name: 'Spicy hub',
  borough: 'Staten Island',
  cuisine: 'Thai',
  grades: [ { grade: 'B', score: 98 } ]
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebeab'),
  res_id: '1008',
  name: 'Desi Express',
  borough: 'Manhattan',
  cuisine: 'Indian',
  grades: [ { grade: 'C', score: 10 } ]
}

restaurant>
```

db.restaurant_details.find({}, {res_id:1,name:1,borough:1,cuisine:1})

```
mongosh mongodb://127.0.0.1:27017/restaurant
restaurant> db.restaurant_details.find({}, {res_id:1,name:1,borough:1,cuisine:1})
{
  _id: ObjectId('68efb7eadbb7ca4549cebea4'),
  res_id: '1001',
  name: 'Williams grill',
  borough: 'Bronx',
  cuisine: 'American'
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea5'),
  res_id: '1002',
  name: 'Wilton bbq',
  borough: 'Queens',
  cuisine: 'Italian'
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea6'),
  res_id: '1003',
  name: 'Ces delihs',
  borough: 'Manhattan',
  cuisine: 'Chinese'
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea7'),
  res_id: '1004',
  name: 'Regal taste',
  borough: 'Brooklyn',
  cuisine: 'Italian'
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea8'),
  res_id: '1005',
  name: 'Tnadoori flame',
  borough: 'Bronx',
  cuisine: 'Indian'
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebea9'),
  res_id: '1006',
  name: 'The Regal diner',
  borough: 'Queens',
  cuisine: 'American'
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebeaa'),
  res_id: '1007',
  name: 'Spicy hub',
  borough: 'Staten Island',
  cuisine: 'Thai'
},
{
  _id: ObjectId('68efb7eadbb7ca4549cebeab'),
  res_id: '1008',
  name: 'Desi Express',
  borough: 'Manhattan',
  cuisine: 'Indian'
}

restaurant>
```

Practical no:-11

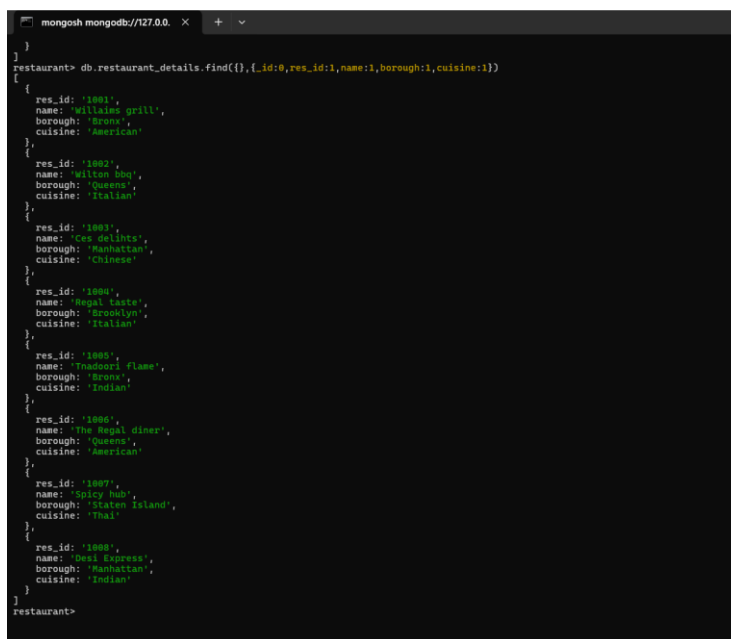
1. Write a MongoDB query to display the fields restaurant_id, name, borough and cuisine, but exclude the field _id for all the documents in the collection restaurant

2. Write a MongoDB query to display all the restaurant which is in the borough

Bronx

1 restaurant>

```
db.restaurant_details.find({},{_id:0,res_id:1,name:1,borough:1,cuisine:1})
```



The screenshot shows a MongoDB shell window with the title 'mongoosh mongodb://127.0.0.1'. The command entered is `restaurant> db.restaurant_details.find({}, {_id:0,res_id:1,name:1,borough:1,cuisine:1})`. The output displays a list of 10 restaurant documents, each with fields: `res_id`, `name`, `borough`, and `cuisine`. The documents are as follows:

- `{ res_id: '1001', name: 'Wilkins grill', borough: 'Bronx', cuisine: 'American' }`
- `{ res_id: '1002', name: 'Wilton bbq', borough: 'Queens', cuisine: 'Italian' }`
- `{ res_id: '1003', name: 'Ces delints', borough: 'Manhattan', cuisine: 'Chinese' }`
- `{ res_id: '1004', name: 'Regal taste', borough: 'Brooklyn', cuisine: 'Italian' }`
- `{ res_id: '1005', name: 'Thadoori flame', borough: 'Bronx', cuisine: 'Indian' }`
- `{ res_id: '1006', name: 'The Regal diner', borough: 'Queens', cuisine: 'American' }`
- `{ res_id: '1007', name: 'Spicy hub', borough: 'Staten Island', cuisine: 'Thai' }`
- `{ res_id: '1008', name: 'Desi Express', borough: 'Manhattan', cuisine: 'Indian' }`

The shell prompt `restaurant>` is visible at the bottom of the window.

2 restaurant> db.restaurant_details.find({borough:"Bronx"})

```
restaurant> db.restaurant_details.find({borough:"Bronx"})
{
  _id: ObjectId('08ef07eadb07ca8349cebeaa'),
  res_id: '1005',
  name: 'Williams grill',
  borough: 'Bronx',
  cuisine: 'American',
  grades: [ { grade: 'A', score: 92 } ]
},
{
  _id: ObjectId('08ef07eadbb7ca8349cebeaa'),
  res_id: '1006',
  name: 'Tadpoles flame',
  borough: 'Bronx',
  cuisine: 'Indian',
  grades: [ { grade: 'A', score: 90 } ]
}
restaurant> |
```

Practical no:-12

1. Write a MongoDB query to display the first 5 restaurants which are in the borough Bronx.

2. Write a MongoDB query to display the next 5 restaurants after skipping first 5

which are in the borough Bronx

1 test> use restaurant

switched to db restaurant

restaurant> db.restaurant_detail.insertMany([

... building_number:"1007",

... street:"Morris Park Ave",

... zipcode:"10462",

... coordinates:[-73.856077, 40.848447],

... borough:"Bronx",

... cuisine:"Italian",

... grades:[

... {date:new Date("2023-01-20"),

... grade:"A",

... score:10

... },

... {date:new Date("2023-07-14"),

... grade:"B",

... score:15

```
... }  
... ]  
... },  
... {  
... building_number:"469",  
... street:"Flatbush Ave",  
... zipcode:"11225",  
... coordinates:[-73.961704, 40.662942],  
... borough:"Bronx",  
... cuisine:"Chinese",  
... grades:[  
... {date:new Date("2022-12-05"),  
... grade:"A",  
... score:12  
... },  
... {  
... date:new Date("2023-08-10"),  
... grade:"C",  
... score:22  
... }  
... ]  
... },  
... {  
... building_number:"55",  
... street:"Broadway",  
... zipcode:"10006",  
... coordinates:[-74.012083, 40.707496],  
... borough:"Bronx",  
... cuisine:"Mexican",
```



```
... grades:[
... {date:new Date("2023-03-18"),
... grade:"A",
... score:9
... },
... {date:new Date("2024-01-12"),
... grade:"A",
... score:11
... }
... ]
... },
... {
... building_number:"11",
... street:"Arthur Ave",
... zipcode:"10458",
... coordinates:[-73.880123, 40.855789],
... borough:"Bronx",
... cuisine:"Pizza",
... grades:[
... {date:new Date("2023-04-10"),
... grade:"B",
... score:18
... },
... {date:new Date("2023-09-12"),
... grade:"A",
... score:12
... }
... ]
... },
```

```
... {
... building_number:"250",
... street:"Grand Concourse",
... zipcode:"10451",
... coordinates:[-73.925312, 40.827632],
... borough:"Bronx",
... cuisine:"American",
... grades:[
... {date:new Date("2023-05-25"),
... grade:"C",
... score:25
... },
... {date:new Date("2023-11-19"),
... grade:"B",
... score:14
... }
... ]
... },
... {
... building_number:"98",
... street:"Third Ave",
... zipcode:"10455",
... coordinates:[-73.918332, 40.815623],
... borough:"Bronx",
... cuisine:"Indian",
... grades:[
... {date:new Date("2023-06-05"),
... grade:"A",
... score:9
```

```
... },
... {date:new Date("2024-01-18"),
... grade:"B",
... score:16
... }
... ]
... },
... {
... building_number:"210",
... street:"Fordham Rd",
... zipcode:"10468",
... coordinates:[-73.900562, 40.862633],
... borough:"Bronx",
... cuisine:"Thai",
... grades:[
... {date:new Date("2023-03-11"),
... grade:"B",
... score:17
... },
... {date:new Date("2023-10-22"),
... grade:"C",
... score:20
... }
... ]
... }
... ]);
```

```
... grades:[
...   {date:new Date("2023-03-11"),
...     grade:"B",
...     score:17
...   },
...   {date:new Date("2023-10-22"),
...     grade:"C",
...     score:20
...   }
... ]
... ]);
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('68b70c3d0489648cc8eec4a9'),
    '1': ObjectId('68b70c3d0489648cc8eec4aa'),
    '2': ObjectId('68b70c3d0489648cc8eec4ab'),
    '3': ObjectId('68b70c3d0489648cc8eec4ac'),
    '4': ObjectId('68b70c3d0489648cc8eec4ad'),
    '5': ObjectId('68b70c3d0489648cc8eec4ae'),
    '6': ObjectId('68b70c3d0489648cc8eec4af')
  }
}
```

```
{
  id: ObjectId('5db70c3db0489648cc8eecc4a9'),
  building_number: '100',
  street: 'Marini Park Ave.',
  zipcode: '10662',
  coordinates: [ -73.850677, 40.846447 ],
  borough: 'Bronx',
  cuisine: 'Italian',
  grades: [
    {
      date: ISODate('2023-01-28T00:00:00.000Z'),
      grade: 'A',
      score: 10
    },
    {
      date: ISODate('2023-07-14T00:00:00.000Z'),
      grade: 'B',
      score: 15
    }
  ]
},
{
  id: ObjectId('5db70c3db0489648cc8eecc4aa'),
  building_number: '469',
  street: 'FifthAvenue Ave.',
  restaurant: ' ',
  coordinates: [ -73.961784, 40.662942 ],
  borough: 'Bronx',
  cuisine: 'Chinese',
  grades: [
    {
      date: ISODate('2022-12-05T00:00:00.000Z'),
      grade: 'A',
      score: 12
    },
  ]
}
```

```
restaurant> db.restaurant_detail.Find({borough:"Browne"}).skip(5).limit(5);
```

```
{
  id: ObjectId('00b70c3d04809648cc8eecc4ae'),
  building_number: '80',
  street: 'Third Ave',
  zipcode: '10455',
  coordinates: [ -73.918332, 40.815623 ],
  borough: 'Browne',
  cuisine: 'Indian',
  grades: [
    {
      date: ISODate('2023-06-05T00:00:00.000Z'),
      grade: 'A',
      score: 9
    },
    {
      date: ISODate('2024-01-18T00:00:00.000Z'),
      grade: 'B',
      score: 15
    }
  ]
},
{
  id: ObjectId('00b70c3d04809648cc8eecc4af'),
  building_number: '710',
  street: 'Fourth St',
  zipcode: '10458',
  coordinates: [ -73.908562, 40.862633 ],
  borough: 'Browne',
  cuisine: 'Thai',
  grades: [
    {
      date: ISODate('2023-03-11T00:00:00.000Z'),
      grade: 'B',
      score: 17
    },
    {
      date: ISODate('2023-10-22T00:00:00.000Z'),
      grade: 'C',
      score: 20
    }
  ]
}
```

Practical no:-13

1.write a MongoDB query to find the restaurants who achieved a score more than 90

2.Write a MongoDB query to find the restaurants that achieved a score, more than

80 but less than 100

1 restaurant> db.restaurant_details.find({"grades.score":{\$gt:90}})

```
restaurant> db.restaurant_details.find({"grades.score":{$gt:90}})
{
  "_id": ObjectId("68efb7eadb7ca4509cebea7"),
  "res_id": "1881",
  "name": "Wiltens grill",
  "borough": "Bronx",
  "cuisine": "American",
  "grades": [ { grade: 'A', score: 92 } ]
},
{
  "_id": ObjectId("68efb7eadb7ca4509cebea5"),
  "res_id": "1884",
  "name": "Regal taste",
  "borough": "Brooklyn",
  "cuisine": "Italian",
  "grades": [ { grade: 'B', score: 95 } ]
},
{
  "_id": ObjectId("68efb7eadb7ca4509cebea8"),
  "res_id": "1887",
  "name": "Spicy hub",
  "borough": "Staten Island",
  "cuisine": "Thai",
  "grades": [ { grade: 'B', score: 98 } ]
}
restaurant>
```

2 restaurant> db.restaurant_details.find({"grades.score":{\$gt:80,\$lt:100}})

```
mongosh mongodb://127.0.0.1
restaurant> db.restaurant_details.find({"grades.score":{$gt:80,$lt:100}})
{
  "_id": ObjectId("68efb7eadb7ca4509cebea7"),
  "res_id": "1881",
  "name": "Wiltens grill",
  "borough": "Bronx",
  "cuisine": "American",
  "grades": [ { grade: 'A', score: 92 } ]
},
{
  "_id": ObjectId("68efb7eadb7ca4509cebea5"),
  "res_id": "1882",
  "name": "Wilton bbq",
  "borough": "Queens",
  "cuisine": "Italian",
  "grades": [ { grade: 'B', score: 88 } ]
},
{
  "_id": ObjectId("68efb7eadb7ca4509cebea7"),
  "res_id": "1884",
  "name": "Regal taste",
  "borough": "Brooklyn",
  "cuisine": "Italian",
  "grades": [ { grade: 'B', score: 95 } ]
},
{
  "_id": ObjectId("68efb7eadb7ca4509cebea8"),
  "res_id": "1885",
  "name": "Tnadoori flame",
  "borough": "Bronx",
  "cuisine": "Indian",
  "grades": [ { grade: 'A', score: 90 } ]
},
{
  "_id": ObjectId("68efb7eadb7ca4509cebea9"),
  "res_id": "1886",
  "name": "The Regal diner",
  "borough": "Queens",
  "cuisine": "American",
  "grades": [ { grade: 'A', score: 85 } ]
},
{
  "_id": ObjectId("68efb7eadb7ca4509cebeaa"),
  "res_id": "1887",
  "name": "Spicy hub",
  "borough": "Staten Island",
  "cuisine": "Thai",
  "grades": [ { grade: 'B', score: 98 } ]
}
restaurant>
```

Practical no:-14

Write a MongoDB query to find the restaurants which do not prepare any cuisine

of 'American ' and achieved a grade point 'A' not belonging to the borough Brooklyn. The document must be displayed according to the cuisine in descending order

restaurant>

```
db.restaurant_details.find({cuisine:{$ne:"American"},"grades.grade":"A",borough:{$ne:"Brooklyn"}}).sort({cuisine:-1})
```

```
}
restaurant> db.restaurant_details.find({cuisine:{$ne:"American"},"grades.grade":"A",borough:{$ne:"Brooklyn"}}).sort({cuisine:-1})
{
  _id: ObjectId('68ef07eadb7ca0349ceba8'),
  res_id: '18886',
  name: 'Thaddeus's Flame',
  borough: 'Manhattan',
  cuisine: 'Indian',
  grades: [ { grade: 'A', score: 90 } ]
}
restaurant>
```

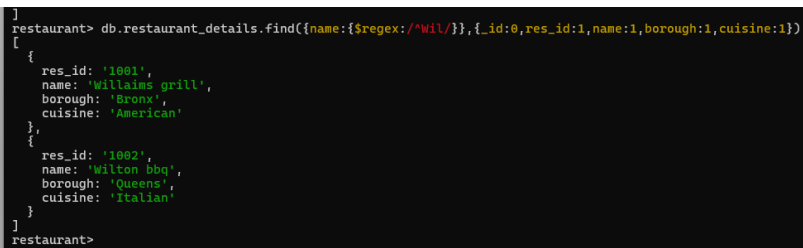
Practical no:-15

Write a MongoDB query to find the restaurant Id,name, borough and cuisine for

those restaurants which contain 'Wil' as first three letters for its name

restaurant>

```
db.restaurant_details.find({name:{$regex:/^Wil/}}, {_id:0,res_id:1,name:1,borough:1,cuisine:1})
```



```
]
restaurant> db.restaurant_details.find({name:{$regex:/^Wil/}}, {_id:0,res_id:1,name:1,borough:1,cuisine:1})
[
  {
    res_id: '1001',
    name: 'Williams grill',
    borough: 'Bronx',
    cuisine: 'American'
  },
  {
    res_id: '1002',
    name: 'Wilton Bbq',
    borough: 'Queens',
    cuisine: 'Italian'
  }
]
restaurant>
```

Practical no:-16

Write a MongoDB query to find the restaurant Id,name, borough and cuisine for

those restaurants which contain 'ces' as the last three letters for its name.

restaurant>

db.restaurant_details.find({name:{\$regex:/bbq\$/}}, {_id:0,res_id:1,name:1,borough:1,cuisine:1})

```
restaurant> db.restaurant_details.find({name:{$regex:/bbq$/}}, {_id:0,res_id:1,name:1,borough:1,cuisine:1})
{
  res_id: '1002',
  name: 'Wilton Sq',
  borough: 'Queens',
  cuisine: 'Italian'
}
restaurant>
```


Practical no:-17

Write a MongoDB query to find the restaurant Id,name, borough and cuisine for

those restaurants which contain 'Reg' as three letters somewhere in its name

restaurant>

```
db.restaurant_details.find({name:{$regex:/Reg/}},{_id:0,res_id:1,name:1,borough:1,cuisine:1})
```

Output:-

```
restaurant> db.restaurant_details.find({name:{$regex:/Reg/}},{_id:0,res_id:1,name:1,borough:1,cuisine:1})
[
  {
    res_id: '1004',
    name: 'Regal taste',
    borough: 'Brooklyn',
    cuisine: 'Italian'
  },
  {
    res_id: '1006',
    name: 'The Regal diner',
    borough: 'Queens',
    cuisine: 'American'
  }
]
restaurant>
```

in

Practical no:-18

Write a MongoDB query to find the restaurants which belong to the borough Bronx and prepared either American or Chinese dish

restaurant>

db.restaurant_details.find({borough:"Bronx",cuisine:{\$in:["American","Chinese"]}})

Output:-

```
]
restaurant> db.restaurant_details.find({borough:"Bronx",cuisine:{$in:["American","Chinese"]}})
[
  {
    _id: ObjectId('68efb7eadbb7ca4549cebea4'),
    res_id: '1801',
    name: 'Willaims grill',
    borough: 'Bronx',
    cuisine: 'American',
    grades: [ { grade: 'A', score: 92 } ]
  }
]
restaurant>
```

Write a MongoDB query to find the restaurant Id,name, borough and cuisine for

those restaurants which belong to the borough Staten Island or Queens or Bronx

or Brooklyn

```
restaurant> db.restaurant_details.find({borough:{$in:["Staten  
Island","Queens","Bronx","Brooklyn"]}}, {_id:0,res_id:1,name:1,borough:1,cuisine:1})
```

Output:-

```
mongosh mongod> /v27.0.0 × + ▾
```

```
restaurant> db.restaurant_details.find([{$or:[{"borough":{"$in":["Staten Island","Queens","Bronx","Brooklyn"]}}, {"id":0,res_id:1,name:1,borough:1,cuisine:1}}])
```

```
{
  res_id: '1961',
  name: 'Williams grill',
  borough: 'Bronx',
  cuisine: 'American'
},
{
  res_id: '1962',
  name: 'Wilton bag',
  borough: 'Queens',
  cuisine: 'Italian'
},
{
  res_id: '1968',
  name: 'Regal taste',
  borough: 'Brooklyn',
  cuisine: 'Italian'
},
{
  res_id: '1965',
  name: 'Inadoori flame',
  borough: 'Bronx',
  cuisine: 'Indian'
},
{
  res_id: '1966',
  name: 'The Regal diner',
  borough: 'Queens',
  cuisine: 'American'
},
{
  res_id: '1967',
  name: 'Jolly hub',
  borough: 'Staten Island',
  cuisine: 'Thai'
}
]
restaurant>
```

Practical no:-20

Write a MongoDB query to find the restaurant Id,name, borough and cuisine for

those restaurants which are not belonging to the borough Staten Island Or Queens

or Bronx or Brooklyn.

```
restaurant> db.restaurant_details.find({borough:{$nin:["Staten Island","Queens","Bronx","Brooklyn"]},{_id:0,res_id:1,name:1,borough:1,cuisine:1})
```

Output:-



```
mongosh mongodb://127.0.0.1:27020
restaurant> db.restaurant_details.find({borough:{$nin:["Staten Island","Queens","Bronx","Brooklyn"]},{_id:0,res_id:1,name:1,borough:1,cuisine:1})
[
  {
    res_id: '1003',
    name: 'Ono deliziosi',
    borough: 'Manhattan',
    cuisine: 'Chinese'
  },
  {
    res_id: '1006',
    name: 'Regal Taste',
    borough: 'Brooklyn',
    cuisine: 'Italian'
  },
  {
    res_id: '1008',
    name: 'Shel's Express',
    borough: 'Manhattan',
    cuisine: 'Indian'
  }
]
restaurant>
```

Practical no:-21

Write a MongoDB query to find the restaurant Id,name, borough and cuisine for

those restaurants which achieved a score which is not more than 10

restaurant>

```
db.restaurant_details.find({"grades.score":{"$lte:10"}},{_id:0,res_id:1,name:1,borough:1,cuisine:1})
```

Output:-

```
restaurant> db.restaurant_details.find({"grades.score":{"$lte:10"}},{_id:0,res_id:1,name:1,borough:1,cuisine:1})
[
  {
    res_id: '1008',
    name: 'Desi Express',
    borough: 'Manhattan',
    cuisine: 'Indian'
  }
]
restaurant>
```

Practical no:-22

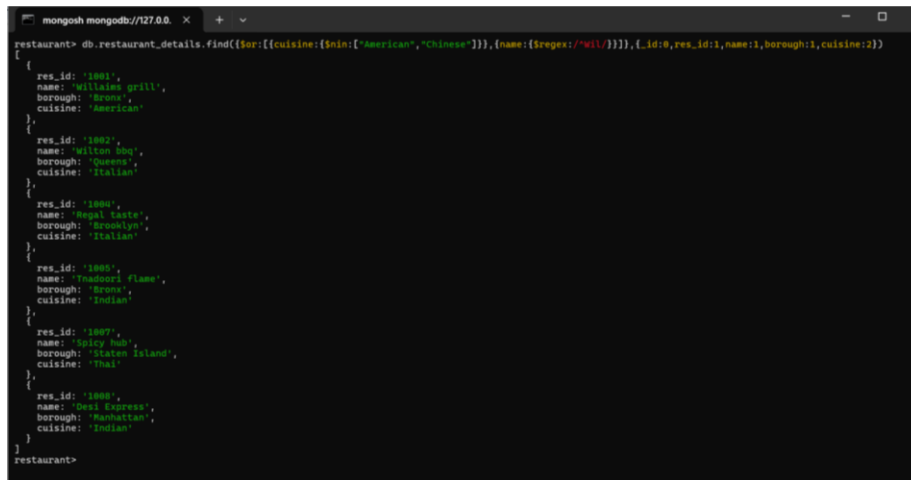
Write a MongoDB query to find the restaurant Id,name, borough and cuisine for

those restaurants which prepared dish except 'American' and 'Chinese' or restaurant's name begins with letter 'Wil'

restaurant>

```
db.restaurant_details.find({$or:[{cuisine:{$nin:["American","Chinese"]}}, {name:{$regex:/^Wil/}}],{_id:0,res_id:1,name:1,borough:1,cuisine:2})
```

Output:-



```
mongosh mongodb://127.0.0.1 x + v
restaurant> db.restaurant_details.find({$or:[{cuisine:{$nin:["American","Chinese"]}}, {name:{$regex:/^Wil/}}],{_id:0,res_id:1,name:1,borough:1,cuisine:2})
{
  res_id: '10001',
  name: 'Willains grill',
  borough: 'Jamaica',
  cuisine: 'American'
},
{
  res_id: '10002',
  name: 'Wilton Sq',
  borough: 'Queens',
  cuisine: 'Italian'
},
{
  res_id: '10003',
  name: 'Regal taste',
  borough: 'Jamaica',
  cuisine: 'Italian'
},
{
  res_id: '10004',
  name: 'Thaddeus flame',
  borough: 'Jamaica',
  cuisine: 'Indian'
},
{
  res_id: '10007',
  name: 'Spicy hub',
  borough: 'Jamaica Island',
  cuisine: 'Thai'
},
{
  res_id: '10008',
  name: 'Deal Express',
  borough: 'Manhattan',
  cuisine: 'Indian'
}
}
restaurant>
```

Practical no:-23

Write a MongoDB query to arrange the name of the restaurants in descending along with all the columns

restaurant> db.restaurant_details.find().sort({name:-1})

Output:-



```
mongosh mongodb://127.0.0.1:27000
> use restaurant
> db.restaurant_details.find().sort({name:-1})
{
  "_id": ObjectId("506f75a0b37ca5040c0ebae7"),
  "res_id": "1001",
  "name": "Willow Inn",
  "borough": "Queens",
  "cuisine": "Italian",
  "grades": [ { grade: "A", score: 88 } ]
},
{
  "_id": ObjectId("506f75a0b37ca5040c0ebae7"),
  "res_id": "1002",
  "name": "Willow Grill",
  "borough": "Queens",
  "cuisine": "American",
  "grades": [ { grade: "A", score: 92 } ]
},
{
  "_id": ObjectId("506f75a0b37ca5040c0ebae7"),
  "res_id": "1003",
  "name": "Madhuri Flame",
  "borough": "Queens",
  "cuisine": "Indian",
  "grades": [ { grade: "A", score: 90 } ]
},
{
  "_id": ObjectId("506f75a0b37ca5040c0ebae7"),
  "res_id": "1004",
  "name": "The Royal Diner",
  "borough": "Queens",
  "cuisine": "American",
  "grades": [ { grade: "B", score: 85 } ]
},
{
  "_id": ObjectId("506f75a0b37ca5040c0ebae7"),
  "res_id": "1005",
  "name": "Sage Inn",
  "borough": "Statens Island",
  "cuisine": "Thai",
  "grades": [ { grade: "B", score: 88 } ]
},
{
  "_id": ObjectId("506f75a0b37ca5040c0ebae7"),
  "res_id": "1006",
  "name": "Nagal Taste",
  "borough": "Queens",
  "cuisine": "Italian",
  "grades": [ { grade: "B", score: 88 } ]
},
{
  "_id": ObjectId("506f75a0b37ca5040c0ebae7"),
  "res_id": "1007",
  "name": "Uchi Japanese",
  "borough": "Manhattan",
  "cuisine": "Japanese",
  "grades": [ { grade: "C", score: 78 } ]
},
{
  "_id": ObjectId("506f75a0b37ca5040c0ebae7"),
  "res_id": "1008",
  "name": "The Melrose",
  "borough": "Manhattan",
  "cuisine": "Chinese",
  "grades": [ { grade: "C", score: 78 } ]
}
```

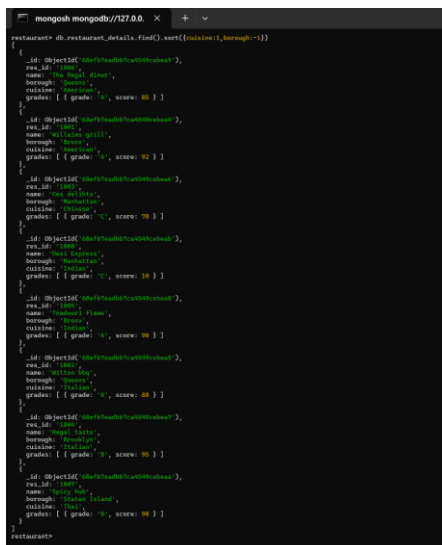
Practical no:-24

Write a MongoDB query to arranged the name of the cuisine in ascending order

and for that same cuisine borough should be in descending order.

```
restaurant> db.restaurant_details.find().sort({cuisine:1,borough:-1})
```

Output:-



```
restaurant> db.restaurant_details.find().sort({cuisine:1,borough:-1})
[
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The Great Diner",
    "borough": "Manhattan",
    "cuisine": "American",
    "grades": [ { grade: "A", score: 85 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "Kilgus Grill",
    "borough": "Manhattan",
    "cuisine": "Asian",
    "grades": [ { grade: "A", score: 90 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The Italian",
    "borough": "Manhattan",
    "cuisine": "Italian",
    "grades": [ { grade: "A", score: 75 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The Japanese",
    "borough": "Manhattan",
    "cuisine": "Japanese",
    "grades": [ { grade: "A", score: 10 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The Mexican",
    "borough": "Manhattan",
    "cuisine": "Mexican",
    "grades": [ { grade: "A", score: 90 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The Mediterranean",
    "borough": "Manhattan",
    "cuisine": "Mediterranean",
    "grades": [ { grade: "A", score: 80 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The Middle Eastern",
    "borough": "Manhattan",
    "cuisine": "Middle Eastern",
    "grades": [ { grade: "A", score: 85 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The North American",
    "borough": "Manhattan",
    "cuisine": "North American",
    "grades": [ { grade: "A", score: 90 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The South American",
    "borough": "Manhattan",
    "cuisine": "South American",
    "grades": [ { grade: "A", score: 90 } ]
  },
  {
    "_id": ObjectId("5d4b7b4b7b4b7b4b7b4b7b4b"),
    "rev_id": "1000",
    "name": "The Spanish",
    "borough": "Manhattan",
    "cuisine": "Spanish",
    "grades": [ { grade: "A", score: 90 } ]
  }
]
```


Practical no:-25

Write a MongoDB query to know whether all the addresses contains the street or

No

```
restaurant> db.restaurant_details.find({"address.street":{$exists:false}})
```

Output:-

```
restaurant> db.restaurant_details.find({"address.street":{$exists:false}})
{
  "_id": ObjectId("681c9efaf4a4b8b8a5a5a5a5"),
  "building": "1000",
  "street": "valle hills 'algonu'",
  "zipcode": [ -73.5736, 40.45784 ],
  "borough": "arona",
  "cuisine": "Italian",
  "grades": [
    {
      "date": ISODate("2024-01-15T00:00:00.000Z"),
      "grade": "A",
      "score": 10
    },
    {
      "date": ISODate("2023-08-10T00:00:00.000Z"),
      "grade": "B",
      "score": 10
    }
  ]
},
{
  "_id": ObjectId("681c9efaf4a4b8b8a5a5a5a5"),
  "building": "1000",
  "street": "valle hills 'algonu'",
  "zipcode": "10025",
  "coordinates": [ -73.856877, 40.848447 ],
  "borough": "arona",
  "cuisine": "Italian",
  "grades": [
    {
      "date": ISODate("2024-01-15T00:00:00.000Z"),
      "grade": "A",
      "score": 10
    },
    {
      "date": ISODate("2023-08-10T00:00:00.000Z"),
      "grade": "B",
      "score": 10
    }
  ]
}
restaurant>
```

Practical no:-26

Write a MongoDBquery which will select all documents in the restaurants collection where the coord field value is Double

```
db.restaurant_detail.find({"coordinates":{"$type":"double"}})
```

Output:-

C:\> mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000

```
{
  "date": ISODate("2022-09-10T00:00:00.000Z"),
  "grade": 10,
  "score": 20
}
}
restaurant_detail.find({"coordinates":{"$type":"double"}})
{
  "_id": ObjectId("60b7b3d8b0b0b0b0b0b0b0b0"),
  "building_number": "100",
  "street": "100th Ave SW",
  "zipcode": "55120",
  "coordinates": [ -78.850077, 46.849977 ],
  "borough": "Wynn",
  "cuisine": "Italian",
  "grades": [
    {
      "date": ISODate("2022-03-10T00:00:00.000Z"),
      "grade": 10,
      "score": 10
    },
    {
      "date": ISODate("2022-07-17T00:00:00.000Z"),
      "grade": 10,
      "score": 15
    }
  ]
},
{
  "_id": ObjectId("60b7b3d8b0b0b0b0b0b0b0b0"),
  "building_number": "100",
  "street": "100th Ave SW",
  "zipcode": "55120",
  "coordinates": [ -78.850077, 46.849977 ],
  "borough": "Wynn",
  "cuisine": "Italian",
  "grades": [
    {
      "date": ISODate("2022-12-01T00:00:00.000Z"),
      "grade": 10,
      "score": 12
    },
    {
      "date": ISODate("2022-08-10T00:00:00.000Z"),
      "grade": 10,
      "score": 22
    }
  ]
},
{
  "_id": ObjectId("60b7b3d8b0b0b0b0b0b0b0b0"),
  "building_number": "10",
  "street": "100th Ave SW",
  "zipcode": "55120",
  "coordinates": [ -78.850077, 46.849977 ],
  "borough": "Wynn",
  "cuisine": "Italian",
  "grades": [
    {
      "date": ISODate("2022-03-10T00:00:00.000Z"),
      "grade": 10,
      "score": 8
    },
    {
      "date": ISODate("2022-01-17T00:00:00.000Z"),
      "grade": 10,
      "score": 15
    }
  ]
},
{
  "_id": ObjectId("60b7b3d8b0b0b0b0b0b0b0b0"),
  "building_number": "10",
  "street": "100th Ave SW",
  "zipcode": "55120",
  "coordinates": [ -78.850077, 46.849977 ],
  "borough": "Wynn",
  "cuisine": "Italian",
  "grades": [
    {
      "date": ISODate("2022-09-10T00:00:00.000Z"),
      "grade": 10,
      "score": 18
    },
    {
      "date": ISODate("2022-08-17T00:00:00.000Z"),
      "grade": 10,
      "score": 12
    }
  ]
},
{
  "_id": ObjectId("60b7b3d8b0b0b0b0b0b0b0b0"),
  "building_number": "100",
  "street": "100th Ave SW",
  "zipcode": "55120",
  "coordinates": [ -78.850077, 46.849977 ],
  "borough": "Wynn",
  "cuisine": "Italian",
  "grades": [
    {
      "date": ISODate("2022-03-10T00:00:00.000Z"),
      "grade": 10,
      "score": 25
    },
    {
      "date": ISODate("2022-11-19T00:00:00.000Z"),
      "grade": 10,
      "score": 15
    }
  ]
},
}
```

Practical no:-27

Write a MongoDBquery which will select the restaurant Id, name and grades for

those restaurants which returns 0 as a remainder after dividing thescore by 7

restaurant>

```
db.restaurant_details.find({"grades.score":{$mod:[7,0]}},{_id:0,res_id:1,name:1,grades:1})
```

Output:-

```
restaurant> db.restaurant_details.find({"grades.score":{$mod:[7,0]}},{_id:0,res_id:1,name:1,grades:1})
[
  {
    res_id: '1007',
    name: 'Spicy hub',
    grades: [ { grade: 'B', score: 98 } ]
  }
]
restaurant> |
```

Practical no:-28

Write a MongoDB query to find the restaurant name, borough, longitude and attitude and cuisine for those restaurants which contains 'mon' as three letters somewhere in its name

```
db.restaurant_detail.find({street:{$regex:"Mor",$options:"i"}},{street:1,borough:1,"coordinates":1,cuisine:1,_id:0})
```

Output:-

```
restaurant> db.restaurant_detail.find((street:{$regex:"Mor",$options:"i"}),(street:1,borough:1,"coordinates":1,cuisine:1,_id:0))
{
  street: 'Morris Park Ave',
  coordinates: [ -73.856077, 40.648447 ],
  borough: 'Bronx',
  cuisine: 'Italian'
}
restaurant> _
```

Practical no:-29

Write a MongoDB query to use sum, avg,min max expression

```
db.createCollection("emp1");
db.emp1.insertMany([
  {
    name: "Akanksha",
    department: "Sceince",
    salary: 24000},
  {
    name: "Aparna",
    department: "Commerce",
    salary: 54000},
  {
    name: "Puja",
    department: "Sceince",
    salary: 24000},
  {
    name: "Akanksha",
    department: "Arts",
    salary: 24000}
])

{
  name: "Akanks
  db.emp1.find();
  db.emp1.aggregate([
    {
      $group:{
        _id:null,
        totalsalary:{$sum:"$salary"}
      }
    }
  ]
}
```

Output:

```
emp> db.emp1.aggregate([
... {
... $group:{
... _id:null,
... totalsalary:{$sum:"$salary"}
... }
... })
[ { _id: null, totalsalary: 126000 } ]
emp>
```

```
db.emp1.find();
db.emp1.aggregate([
{
$group:{
_id:null,
totalsalary:{$min:"$salary"}
}
}
])
```

Practical No. 30

1. Create backup of collections emp_personal_details and emp_professional_Details
2. Delete some record and then restore it from backup
3. Export the collection in csv and json format

1. Emp_personal_details

```
[{
  "emp_id": 101,
  "name": "Mahesh Borle",
  "age": 28,
  "department": "IT"
},
{
  "emp_id": 102,
  "name": "RohitPatil",
  "age": 32,
  "department": "HR"
},
{
  "emp_id": 103,
  "name": "Sneha Kulkarni",
  "age": 25,
  "department": "Finance"
}]
```

2) Emp_professional_details

```
[{
  "emp_id": 101,
  "designation": "Software Engineer",
  "salary": 50000,
  "experience": 3
},
{
  "emp_id": 102,
  "designation": "HR Manager",
  "salary": 60000,
  "experience": 7
},
{
  "emp_id": 103,
  "designation": "Accountant",
  "salary": 40000,
  "experience": 2
}]
```

Query: After deleting some records

Emp_personal_details:

```
{
  "_id": {
    "$oid": "68c6813cb2970a6f9da5df48"
  },
  "emp_id": 101,
  "name": "Mahesh Borle",
  "age": 28,
  "department": "IT"
}
```

```
}
{
  "_id": {
    "$oid": "68c6813cb2970a6f9da5df4a"
  },
  "emp_id": 103,
  "name": "Sneha Kulkarni",
  "age": 25,
  "department": "Finance"
}
```

Emp_professional_details:

```
{
  "_id": {
    "$oid": "68c6814fb2970a6f9da5df4d"
  },
  "emp_id": 101,
  "designation": "Software Engineer",
  "salary": 50000,
  "experience": 3
}
```

```
{
  "_id": {
    "$oid": "68c6814fb2970a6f9da5df4e"
  },
  "emp_id": 102,
  "designation": "HR Manager",
  "salary": 60000,
  "experience": 7
}
```

After Restoring from Backup

emp_personal_details :

```
{ emp_id: 101,
  name: "Mahesh Borle",
  age: 28,
  department: "IT"
}
```

```
{ emp_id: 102,
  name: "RohitPatil",
  age: 32,
  department: "HR"
}
```

```
{ emp_id: 103,
  name: "Sneha Kulkarni",
  age: 25,
  department: "Finance" }
```

emp_professional_details:

```
{ emp_id: 101,
  designation: "Software Engineer",
  salary: 50000,
  experience: 3
}
```

```
{ emp_id: 102,
  designation: "HR Manager",
```



```

salary: 60000,
experience: 7 }
{ emp_id: 103,
  designation: "Accountant",
  salary: 40000,
  experience: 2 }

```

Emp_personal_details:Json Format

```

{
  emp_id: 101,
  name: "Mahesh Borle",
  age: 28,
  department: "IT"
}
{
  emp_id: 102,
  name: "RohitPatil",
  age: 32,
  department: "HR"
}
{
  emp_id: 103,
  name: "Sneha Kulkarni",
  age: 25,
  department: "Finance"
}

```

Emp_personal_details:CSV format

FILE

HOME

INSERT

PAGE LAYOUT

FORMULAS

DATA

REVIEW

VIEW

Cut

Copy

Paste

Format Painter

Clipboard

Calibri

11

A

A

Emp_professional_details:Json Format

```

{
  emp_id: 101,
  designation: "Software Engineer",
  salary: 50000,
  experience: 3
}
{

```

```
{
emp_id: 103,
  designation: "Accountant",
  salary: 40000,
  experience: 2
}
```

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW

Clipboard: Paste, Cut, Copy, Format Painter

Font: Calibri, 11, Bold, Italic, Underline, Font Color, Background Color

Alignment: Left, Center, Right, Indent, Decrease Indent, Increase Indent, Wrap Text, Merge & Center

Formula Bar: F5, X, Checkmark, fx

	A	B	C	D	E
1	_id	emp_id	designation	salary	experience
2	68c6814fb2970a6f9da5df4d	101	Software Engineer	50000	3
3	68c6814fb2970a6f9da5df4e	102	HR Manager	60000	7
4	68c6828cb2970a6f9da5df54	103	Accountant	40000	2