```
C:\Users\JSK>mongod --version
db version v8.0.0
Build Info: {
    "version": "8.0.0",
    "gitVersion": "d7cd03b239ac39a3c7d63f7145e91aca36f93db6",
    "modules": [],
    "allocator": "tcmalloc-gperf",
    "environment": {
        "distmod": "windows",
        "distarch": "x86_64",
        "target_arch": "x86_64"
    }
}

C:\Users\JSK>mongosh
Current Mongosh Log ID: 67238184d59c3e58b6c73bf7
Connecting to:          mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.3.1
Using MongoDB:          8.0.0
Using Mongosh:          2.3.1
mongosh 2.3.2 is available for download: https://www.mongodb.com/try/download/shell

For mongosh info see: https://www.mongodb.com/docs/mongodb-shell/

------
   The server generated these startup warnings when booting
   2024-10-20T11:06:53.754+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
------
```

• __Create (Insert) Operations :__

```
RCPIT> db.createCollection('students')
{ ok: 1 }
RCPIT> show dbs
RCPIT      56.00 KiB
admin      40.00 KiB
config     96.00 KiB
local      72.00 KiB
students   72.00 KiB
RCPIT> db.students.insertOne({'name':'jsk', prn:123456789, 'gender':'male'})
{
  acknowledged: true,
  insertedId: ObjectId('6723872ad59c3e58b6c73bfc')
}
```

```
RCPIT> db.students.insertMany([ {'name':'jsk', prn:123456789, 'gender':'male'}, {'name':'zsk', prn:129876789, 'gender':'female'}, {'name':'virat', prn:78566
789, 'gender':'male'} ])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('67238798d59c3e58b6c73bfd'),
    '1': ObjectId('67238798d59c3e58b6c73bfe'),
    '2': ObjectId('67238798d59c3e58b6c73bff')
  }
}
```

• Read Operations :

```
RCPIT> db.students.find()
[
  {
    _id: ObjectId('6723872ad59c3e58b6c73bfc'),
    name: 'jsk',
    prn: 123456789,
    gender: 'male'
  },
  {
    _id: ObjectId('67238798d59c3e58b6c73bfd'),
    name: 'jsk',
    prn: 123456789,
    gender: 'male'
  },
  {
    _id: ObjectId('67238798d59c3e58b6c73bfe'),
    name: 'zsk',
    prn: 129876789,
    gender: 'female'
  },
  {
    _id: ObjectId('67238798d59c3e58b6c73bff'),
    name: 'virat',
    prn: 78566789,
    gender: 'male'
  }
]
```

```
RCPIT>  db.products.find({price : 120}).count()
5
```

```
RCPIT> db.products.find({ 'price': { $eq: 699 } }).count()
13
RCPIT> db.products.find({ 'price': { $ne: 699 } }).count()
10342
RCPIT> db.products.find({ 'price': { $gt: 699 } }).count()
3053
RCPIT> db.products.find({ 'price': { $gte: 699 } }).count()
3066
RCPIT> db.products.find({ 'price': { $lt: 699 } }).count()
7289
RCPIT> db.products.find({ 'price': { $lte: 699 } }).count()
7302
```

```
RCPIT> db.products.find({$and: [{'price': {$gt: 100}},  {'name': 'Diamond Ring'} ]} )
[
  {
    _id: ObjectId('64c236a2e32f4a51b19b9281'),
    name: 'Diamond Ring',
    company: '64c23350e32f4a51b19b923a',
    price: 1999,
    colors: [ '#000000', '#cc6600', '#663300' ],
    image: '/images/product-diamond-ring.png',
    category: '64c2342de32f4a51b19b9259',
    isFeatured: false
  },
  {
    _id: ObjectId('64c23707e32f4a51b19b9296'),
    name: 'Diamond Ring',
    company: '64c23350e32f4a51b19b923a',
    price: 1999,
    colors: [ '#000000', '#cc6600', '#663300' ],
    image: '/images/product-diamond-ring.png',
    category: '64c2342de32f4a51b19b9259',
    isFeatured: false
  }
]
RCPIT> db.products.find({$and: [{'price': {$gt: 2000}},  {'name': 'Diamond Ring'} ]} )
```

```
RCPIT> db.products.find({'price': {$gt: 0},  'name': 'Diamond Ring'} )
[
  {
    _id: ObjectId('64c236a2e32f4a51b19b9281'),
    name: 'Diamond Ring',
    company: '64c23350e32f4a51b19b923a',
    price: 1999,
    colors: [ '#000000', '#cc6600', '#663300' ],
    image: '/images/product-diamond-ring.png',
    category: '64c2342de32f4a51b19b9259',
    isFeatured: false
  },
  {
    _id: ObjectId('64c23707e32f4a51b19b9296'),
    name: 'Diamond Ring',
    company: '64c23350e32f4a51b19b923a',
    price: 1999,
    colors: [ '#000000', '#cc6600', '#663300' ],
    image: '/images/product-diamond-ring.png',
    category: '64c2342de32f4a51b19b9259',
    isFeatured: false
  }
]
```

```
RCPIT> db.products.find({$or: [{'price': {$gt: 2000}},  {'name': 'Diamond Ring'} ]} )
[
  {
    _id: ObjectId('64c236a2e32f4a51b19b9281'),
    name: 'Diamond Ring',
    company: '64c23350e32f4a51b19b923a',
    price: 1999,
    colors: [ '#000000', '#cc6600', '#663300' ],
    image: '/images/product-diamond-ring.png',
    category: '64c2342de32f4a51b19b9259',
    isFeatured: false
  },
  {
    _id: ObjectId('64c23707e32f4a51b19b9296'),
    name: 'Diamond Ring',
    company: '64c23350e32f4a51b19b923a',
    price: 1999,
    colors: [ '#000000', '#cc6600', '#663300' ],
    image: '/images/product-diamond-ring.png',
    category: '64c2342de32f4a51b19b9259',
    isFeatured: false
  }
]
```

```
RCPIT> db.products.find({$nor: [{'price': {$gt: 3000}},  {'name': 'Diamond Ring'} ]} ).count()
10353
RCPIT>  db.products.find({price : 100}).count()
7
RCPIT>  db.products.find({'price':{$not: {$eq: 100}}}).count()
10348
```

```
RCPIT> db.products.find({_id : ObjectId("64c2363be32f4a51b19b9271")})
[
  {
    _id: ObjectId('64c2363be32f4a51b19b9271'),
    name: 'Pet Grooming Kit',
    company: '64c23350e32f4a51b19b923e',
    price: 39,
    colors: [ '#ffffff', '#ffcc00', '#99cc00' ],
    image: '/images/product-pet-grooming.png',
    category: '64c2342de32f4a51b19b9257',
    isFeatured: false
  }
]
RCPIT> db. products.updateOne({_id : ObjectId("64c2363be32f4a51b19b9271")},{$set: {'price': 45} })
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
RCPIT> db.products.find({_id : ObjectId("64c2363be32f4a51b19b9271")})
[
  {
    _id: ObjectId('64c2363be32f4a51b19b9271'),
    name: 'Pet Grooming Kit',
    company: '64c23350e32f4a51b19b923e',
    price: 45,
    colors: [ '#ffffff', '#ffcc00', '#99cc00' ],
    image: '/images/product-pet-grooming.png',
    category: '64c2342de32f4a51b19b9257',
    isFeatured: false
  }
]
```

```
RCPIT>   db.products.find({price : 120}).count()
5
RCPIT>   db.products.updateMany({price : 120}, {$set: {'isFeatured': true }})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 5,
  modifiedCount: 5,
  upsertedCount: 0
}
```

```
RCPIT>   db.products.find({price : 123}).count()
7
RCPIT>   db.products.updateMany({price : 123}, {$rename: {'isFeatured': 'isFeature' }})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 7,
  modifiedCount: 7,
  upsertedCount: 0
}
```

• <u>**Update Operations :**</u>

```
RCPIT>  db.products.updateOne({price : 123}, {$unset: {'isFeature': 1 }})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

• <u>**Delete Operations :**</u>

```
RCPIT> db.products.deleteOne({_id: ObjectId('64c23e543e180eb8a2682ff4')})
{ acknowledged: true, deletedCount: 1 }
RCPIT> db.products.find({price : 123}).count()
6
RCPIT> db.products.find({price : 55}).count()
6
RCPIT> db.products.deleteMany({price : 55})
{ acknowledged: true, deletedCount: 6 }
```