



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

Experiment - 10

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Semester: 5th

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Subject Code: 23CSP-333

1. Aim:

Develop To perform different MongoDB CRUD operations.

2. Output

insertOne

```
cars> db.cars.insertOne({
...   "maker": "Tata",
...   "model": "Nexon",
...   "fuel_type": "Petrol",
...   "transmission": "Automatic",
...   "engine": {
...     "type": "Turbocharged",
...     "cc": 1199,
...     "torque": "170 Nm"
...   },
...   "features": [
...     "Touchscreen",
...     "Reverse Camera",
...     "Bluetooth Connectivity"
...   ],
...   "sunroof": false,
...   "airbags": 2
... })
{
  acknowledged: true,
  insertedId: ObjectId('6910197551df00168bcebea4')
}
```

insertMany

```

cars> db.cars.insertMany([
...   {
...     "maker": "Hyundai",
...     "model": "Creta",
...     "fuel_type": "Diesel",
...     "transmission": "Manual",
...     "engine": {
...       "type": "Naturally Aspirated",
...       "cc": 1493,
...       "torque": "250 Nm"
...     },
...     "features": [
...       "Sunroof",
...       "Leather Seats",
...       "Wireless Charging",
...       "Ventilated Seats",
...       "Bluetooth"
...     ],
...     "sunroof": true,
...     "airbags": 6
...   },
...   {
...     "maker": "Maruti Suzuki",
...     "model": "Baleno",
...     "fuel_type": "Petrol",
...     "transmission": "Automatic",
...     "engine": {
...       "type": "Naturally Aspirated",
...       "cc": 1197,
...       "torque": "113 Nm"
...     },
...     "features": [
...       "Projector Headlamps",
...       "Apple CarPlay",
...       "ABS"
...     ],
...     "sunroof": false,
...     "sunroof": true,
...     "airbags": 6
...   },
...   {
...     "maker": "Honda",
...     "model": "City",
...     "fuel_type": "Petrol",
...     "transmission": "Automatic",
...     "engine": {
...       "type": "Naturally Aspirated",
...       "cc": 1498,
...       "torque": "145 Nm"
...     },
...     "features": [
...       "Keyless Entry",
...       "Auto AC",
...       "Multi-angle Rearview Camera"
...     ],
...     "sunroof": false,
...     "airbags": 4
...   }
... ])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('691019a751df00168bcebea5'),
    '1': ObjectId('691019a751df00168bcebea6'),
    '2': ObjectId('691019a751df00168bcebea7'),
    '3': ObjectId('691019a751df00168bcebea8')
  }
}

```

Find

```
cars> db.cars.find({_id: ObjectId('691019a751df00168bcebea8')})
[
  {
    _id: ObjectId('691019a751df00168bcebea8'),
    maker: 'Honda',
    model: 'City',
    fuel_type: 'Petrol',
    transmission: 'Automatic',
    engine: { type: 'Naturally Aspirated', cc: 1498, torque: '145 Nm' },
    features: [ 'Keyless Entry', 'Auto AC', 'Multi-angle Rearview Camera' ],
    sunroof: false,
    airbags: 4
  }
]
```

```
cars> db.cars.find({}, {maker:1,model:1,_id:0})
[
  { maker: 'Tata', model: 'Nexon' },
  { maker: 'Hyundai', model: 'Creta' },
  { maker: 'Maruti Suzuki', model: 'Baleno' },
  { maker: 'Mahindra', model: 'XUV500' },
  { maker: 'Honda', model: 'City' }
]
```

```
cars> db.cars.find({sunroof:true},{maker:1,model:1,_id:0})
[
  { maker: 'Hyundai', model: 'Creta' },
  { maker: 'Mahindra', model: 'XUV500' }
]
```

updateOne

```
cars> db.cars.updateOne({model:"Nexon"},{$set:{color:"Red"}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

updateMany

```
cars> db.cars.updateMany({fuel_type:"Diesel"},{$set:{alloys:"no"}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
```

(upsert)

```
cars> db.cars.updateMany(
... {fuel_type:"Diesel"},
... {$set:{alloys:"Yes"}},
... {upsert:true})
{
  acknowledged: true,
  insertedId: ObjectId('6910a7f448fa8222b925c022'),
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 1
}
```

DeleteMany

```
cars> db.cars.deleteMany({fuel_type:'Diesel'})
{ acknowledged: true, deletedCount: 1 }
```

grouping

```
cars> db.cars.aggregate([{$group:{_id:"$fuel_type",TotalCars:{$sum:1}}}])
[ { _id: 'Petrol', TotalCars: 3 }, { _id: 'Diesel', TotalCars: 2 } ]
cars>
```