

Import a JSON file from the command line. Apply the following actions with the data present in the JSON file where, projection, aggregation, remove, count, limit, skip and sort

AIM:

To import a JSON file from command line and apply the following actions in MongoDB with the data present in the JSON file using MongoDB Shell.

PROCEDURES:

1. Open the terminal and run `mongod`. This will run the MongoDB server locally in your system.
2. In another terminal window run `mongosh`. This will activate the MongoDB Shell.
3. Create a database using the command `use <database_name>`.
4. Then in another window run this command
`mongoimport --db mydatabase --collection employees --file /path/to/employees.json --jsonArray`
5. The above command will import the JSON file into the database you created.
6. Then use the MongoDB commands to perform the given operations.

OUTPUT:

```
mongosh
data_analytics> db.employees.find({}, {name: 1, age: 1, _id: 0})
[
  { name: 'Grace Wilson' },
  { name: 'Ivy Taylor' },
  { name: 'Bob Johnson' },
  { name: 'Frank Miller' },
  { name: 'Jack Anderson' },
  { name: 'Kara Thomas' },
  { name: 'Leo Jackson' },
  { name: 'Eva Davis' },
  { name: 'Mia White' },
  { name: 'Nate Harris' },
  { name: 'Olivia Clark' },
  { name: 'David Brown' },
  { name: 'Henry Moore' },
  { name: 'Alice Smith' },
  { name: 'Carol Williams' }
]
data_analytics>
```

```
mongosh
data_analytics> db.employees.aggregate([
...   { $group: { _id: "$department", totalEmployees: { $sum: 1 } } }
... ])
[
  { _id: 'Sales', totalEmployees: 1 },
  { _id: 'Content', totalEmployees: 1 },
  { _id: 'HR', totalEmployees: 1 },
  { _id: 'IT', totalEmployees: 1 },
  { _id: 'Data', totalEmployees: 1 },
  { _id: 'Support', totalEmployees: 1 },
  { _id: 'Marketing', totalEmployees: 1 },
  { _id: 'Design', totalEmployees: 2 },
  { _id: 'Finance', totalEmployees: 1 },
  { _id: 'Product', totalEmployees: 1 },
  { _id: 'Business', totalEmployees: 1 },
  { _id: 'Engineering', totalEmployees: 3 }
]
data_analytics>
```

```
mongosh
data_analytics> db.employees.remove({ age: { $gt: 50 } })
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete
e, or bulkWrite.
{ acknowledged: true, deletedCount: 0 }
data_analytics>
```

```
mongosh
data_analytics> db.employees.count({ department: "Engineering" })
DeprecationWarning: Collection.count() is deprecated. Use countDocuments or estimatedDocumentCoun
t.
3
data_analytics>
```

```
mongosh
data_analytics> db.employees.find().limit(3)
[
  {
    _id: ObjectId('66c6d2ccb07834de154b6aa0'),
    employee_id: 7,
    name: 'Grace Wilson',
    position: 'HR Specialist',
    department: 'HR',
    salary: 78000
  },
  {
    _id: ObjectId('66c6d2ccb07834de154b6aa1'),
    employee_id: 9,
    name: 'Ivy Taylor',
    position: 'QA Engineer',
    department: 'Engineering',
    salary: 83000
  },
  {
    _id: ObjectId('66c6d2ccb07834de154b6aa2'),
    employee_id: 2,
    name: 'Bob Johnson',
    position: 'Data Scientist',
    department: 'Data',
    salary: 95000
  }
]
data_analytics>
```

```
mongosh
data_analytics> db.employees.find().skip(12)
[
  {
    _id: ObjectId('66c6d2ccb07834de154b6aac'),
    employee_id: 8,
    name: 'Henry Moore',
    position: 'Finance Analyst',
    department: 'Finance',
    salary: 87000
  },
  {
    _id: ObjectId('66c6d2ccb07834de154b6aad'),
    employee_id: 1,
    name: 'Alice Smith',
    position: 'Software Engineer',
    department: 'Engineering',
    salary: 90000
  },
  {
    _id: ObjectId('66c6d2ccb07834de154b6aae'),
    employee_id: 3,
    name: 'Carol Williams',
    position: 'Product Manager',
    department: 'Product',
    salary: 105000
  }
]
data_analytics>
```

```
mongosh
data_analytics> db.employees.find().sort({ salary: 1 })
[
  {
    _id: ObjectId('66c6d2ccb07834de154b6aa4'),
    employee_id: 10,
    name: 'Jack Anderson',
    position: 'Content Writer',
    department: 'Content',
    salary: 72000
  },
  {
    _id: ObjectId('66c6d2ccb07834de154b6aa9'),
    employee_id: 14,
    name: 'Nate Harris',
    position: 'Customer Support',
    department: 'Support',
    salary: 75000
  },
  {
    _id: ObjectId('66c6d2ccb07834de154b6aa0'),
    employee_id: 7,
    name: 'Grace Wilson',
    position: 'HR Specialist',
    department: 'HR',
    salary: 78000
  },
  {
    _id: ObjectId('66c6d2ccb07834de154b6aaa')
```

RESULT:

Thus, to import a JSON file and perform the given MongoDB operations has been completed successfully.