EX.NO.6 **210701701**

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 the command line and apply the following actions with the data present in the JSON file where, projection, aggregation, remove, count, limit, skip and sort using MongoDB.

PROCEDURE:

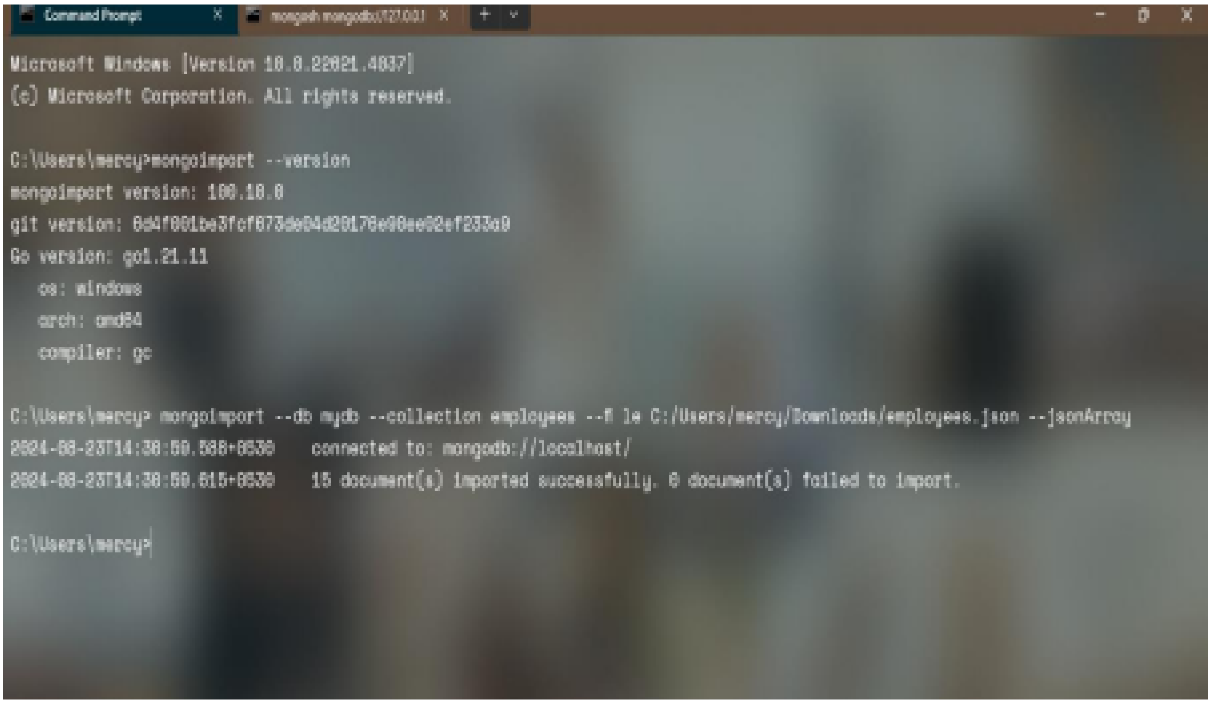
1. Open command prompt and run `mongod` to start the MongoDB server. 2. Then open another command prompt and run `mongosh` to activate MongoDB shell. 3. Create a database using use `<database_name>`.

4. To import the JSON file use this command:

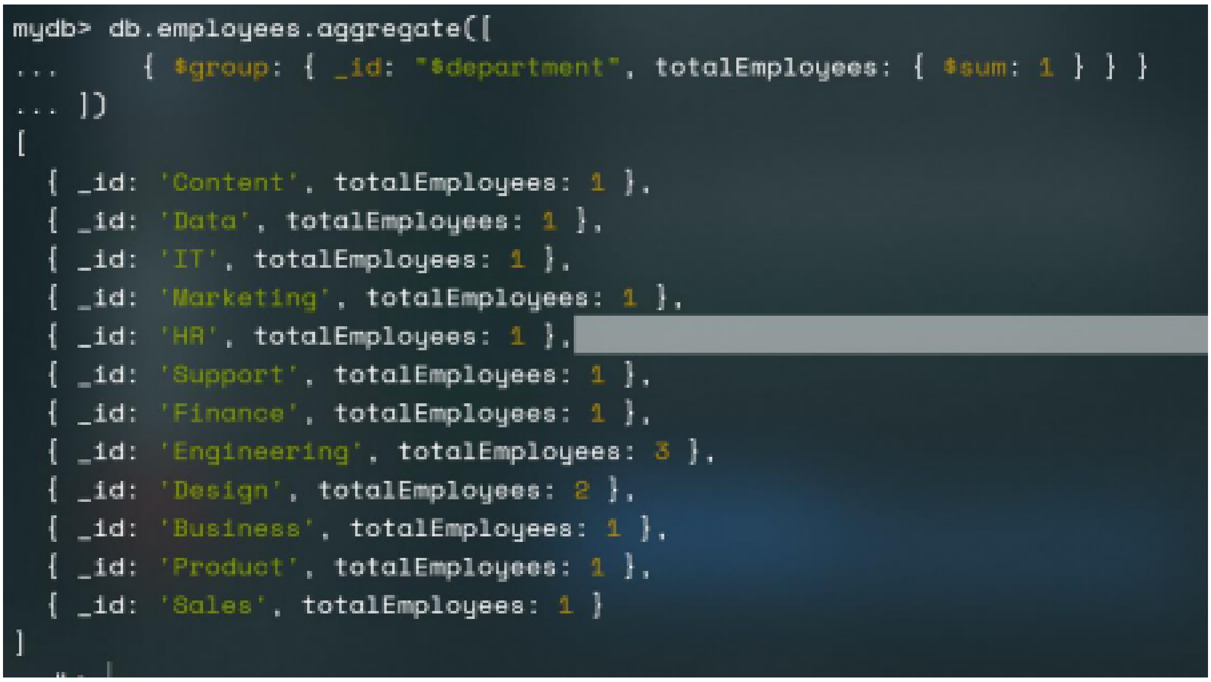
```
mongoimport --db --mydb --collection employees --file
C:\Users\mercy\Downloads\employees.json --jsonArray
```

5. After importing the JSON file perform specific commands for projection, aggregation, remove, count, limit and sort.

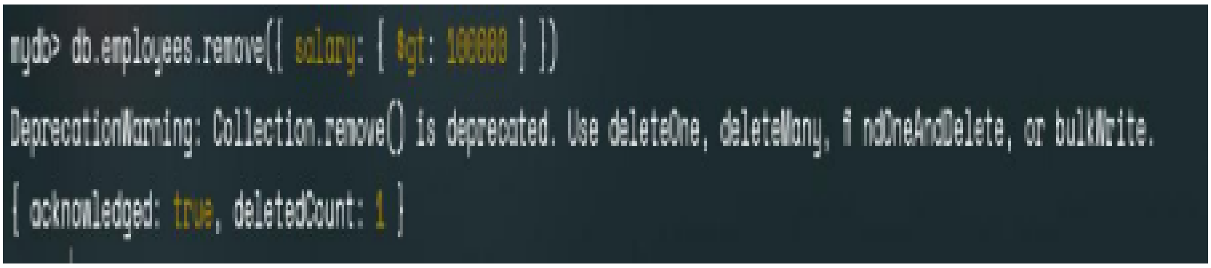
OUTPUT:



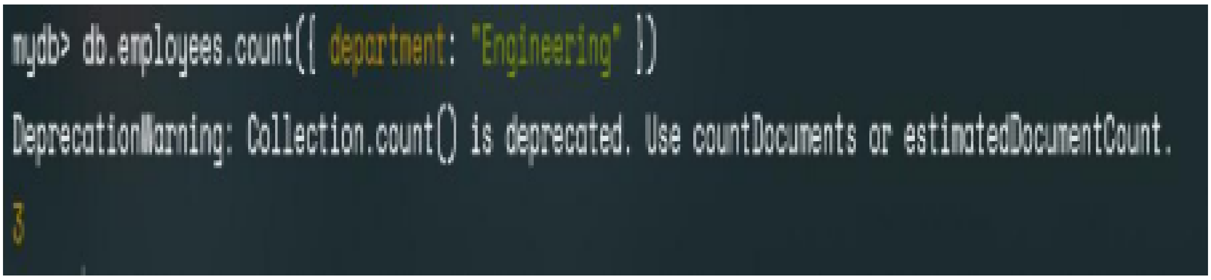
```
Microsoft Windows [Version 10.0.22631.4037]
(c) Microsoft Corporation. All rights reserved.

C:\Users\mercy>mongoimport --version
mongoimport version: 100.10.0
git version: 6d4f001be3fcf673de04d20176e90ee02ef233a9
Go version: go1.21.11
   os: windows
   arch: amd64
   compiler: gc

C:\Users\mercy> mongoimport --db mydb --collection employees --file C:/Users/mercy/Downloads/employees.json --jsonArray
2024-08-23T14:38:59.588+0530    connected to: mongodb://localhost/
2024-08-23T14:38:59.615+0530    15 document(s) imported successfully. 0 document(s) failed to import.

C:\Users\mercy>
```



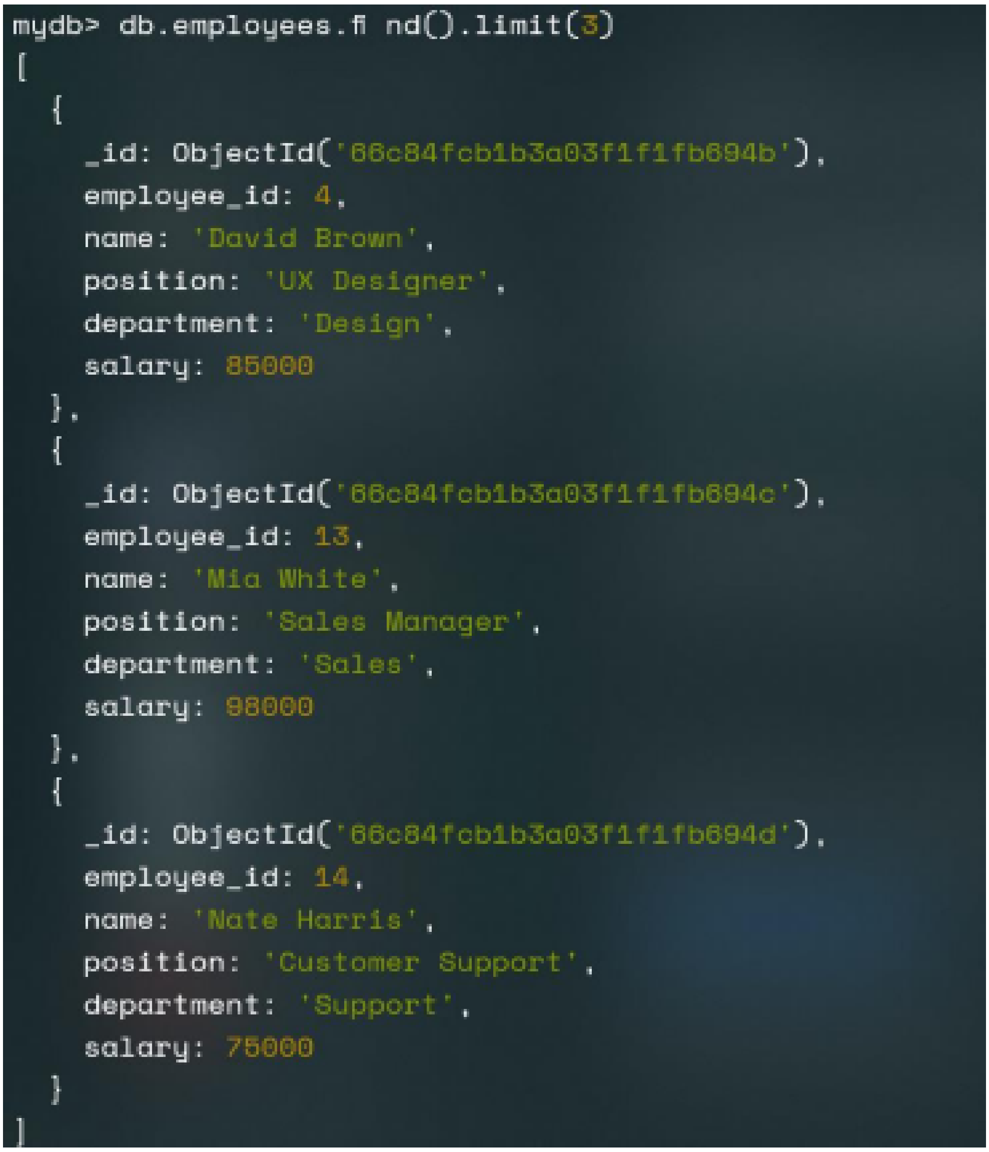
```
mydb> db.employees.aggregate([
...     { $group: { _id: "$department", totalEmployees: { $sum: 1 } } }
... ])
[
  { _id: 'Content', totalEmployees: 1 },
  { _id: 'Data', totalEmployees: 1 },
  { _id: 'IT', totalEmployees: 1 },
  { _id: 'Marketing', totalEmployees: 1 },
  { _id: 'HR', totalEmployees: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



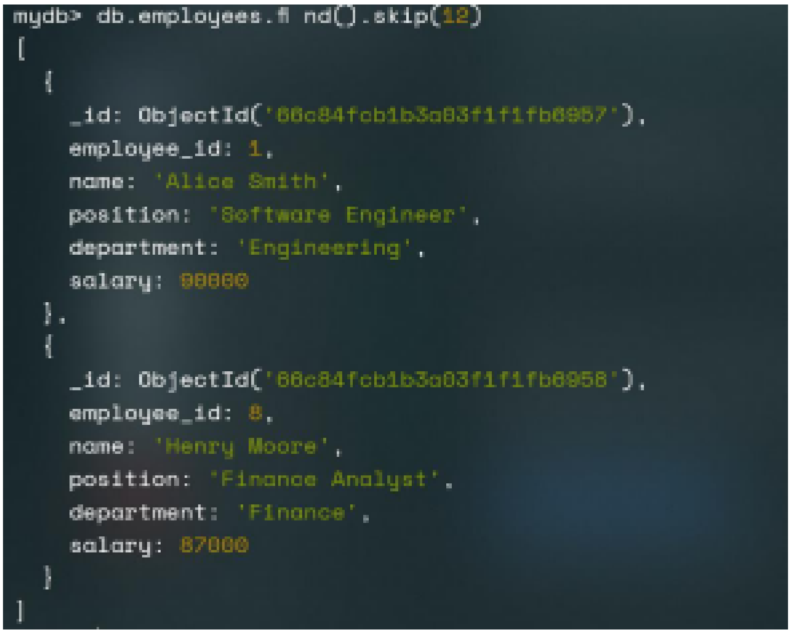
```
mydb> db.employees.remove({ salary: { $gt: 100000 } })
DeprecationWarning: Collection.remove() is deprecated. Use deleteOne, deleteMany, findOneAndDelete, or bulkWrite.
{ acknowledged: true, deletedCount: 1 }
```



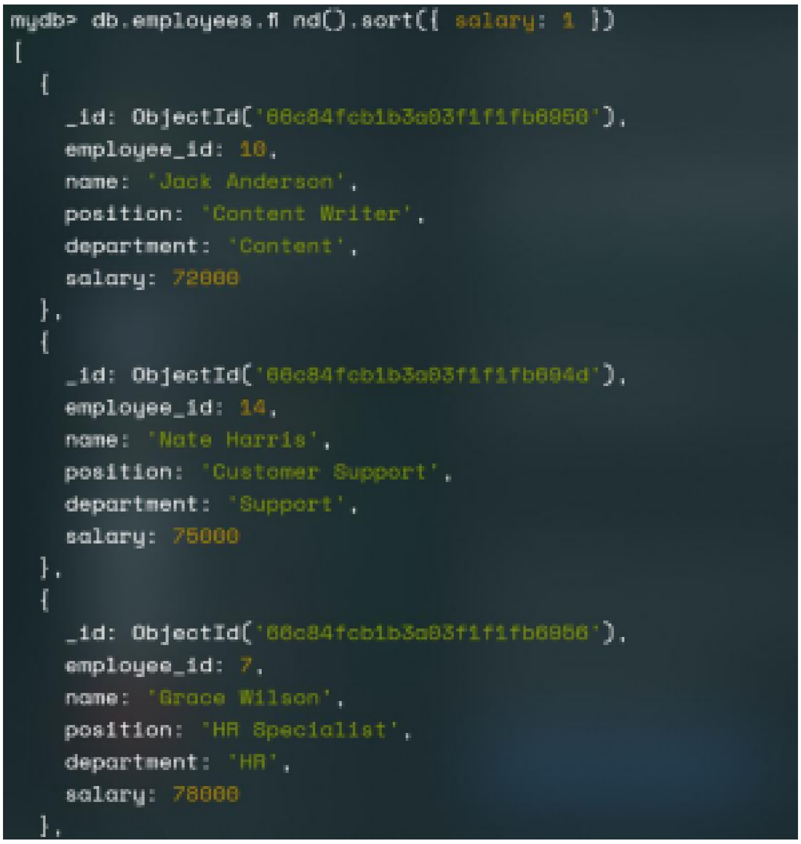
```
mydb> db.employees.count({ department: "Engineering" })
DeprecationWarning: Collection.count() is deprecated. Use countDocuments or estimatedDocumentCount.
3
```



```
mydb> db.employees.find().limit(3)
[
  {
    _id: ObjectId('66c84fcb1b3a03f1f1fb694b'),
    employee_id: 4,
    name: 'David Brown',
    position: 'UX Designer',
    department: 'Design',
    salary: 85000
  },
  {
    _id: ObjectId('66c84fcb1b3a03f1f1fb694c'),
    employee_id: 13,
    name: 'Mia White',
    position: 'Sales Manager',
    department: 'Sales',
    salary: 98000
  },
  {
    _id: ObjectId('66c84fcb1b3a03f1f1fb694d'),
    employee_id: 14,
    name: 'Nate Harris',
    position: 'Customer Support',
    department: 'Support',
    salary: 75000
  }
]
```



```
mydb> db.employees.find().skip(12)
[
  {
    _id: ObjectId('66c84fcb1b3a03f1f1fb6957'),
    employee_id: 1,
    name: 'Alice Smith',
    position: 'Software Engineer',
    department: 'Engineering',
    salary: 90000
  },
  {
    _id: ObjectId('66c84fcb1b3a03f1f1fb6958'),
    employee_id: 8,
    name: 'Henry Moore',
    position: 'Finance Analyst',
    department: 'Finance',
    salary: 87000
  }
]
```



```
mydb> db.employees.find().sort({ salary: 1 })
[
  {
    _id: ObjectId('66c84fcb1b3a03f1f1fb6950'),
    employee_id: 10,
    name: 'Jack Anderson',
    position: 'Content Writer',
    department: 'Content',
    salary: 72000
  },
  {
    _id: ObjectId('66c84fcb1b3a03f1f1fb694d'),
    employee_id: 14,
    name: 'Nate Harris',
    position: 'Customer Support',
    department: 'Support',
    salary: 75000
  },
  {
    _id: ObjectId('66c84fcb1b3a03f1f1fb6956'),
    employee_id: 7,
    name: 'Grace Wilson',
    position: 'HR Specialist',
    department: 'HR',
    salary: 78000
  },
```

RESULT:

Thus to import a JSON file from the command line and apply the following actions with the data present in the JSON file where, projection, aggregation, remove, count, limit, skip and sort using MongoDB is completed successfully.