

CSE-5331-001 DBMS MODELS AND IMPLEMENTATION

PROJECT 2

SUMMER 2020

EXTRA CREDIT 2

TEAM :

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EXTRA CREDIT 2:

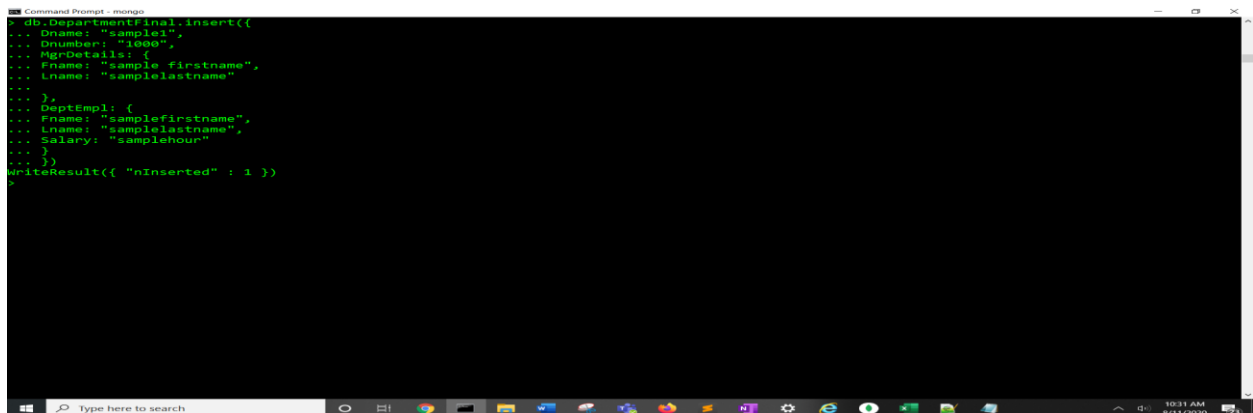
QUERIES:

1.CREATE

*****INSERTING A DOCUMENT INTO A COLLECTION:*****

```
db.DepartmentFinal.insert({  
    Dname: "sample1",  
    Dnumber: "1000",  
    MgrDetails: {  
        Fname: "sample firstname",  
        Lname: "samplelastname"  
    },  
    DeptEmpl: {  
        Fname: "samplefirstname",  
        Lname: "samplelastname",  
        Salary: "samplehour"  
    }  
})
```

OUTPUT:



```
Command Prompt - mongo
> db.DepartmentFinal.insert({
...   Dname: "sample1",
...   Dnumber: "1000",
...   MgrDetails: {
...     Fname: "sample firstname",
...     Lname: "samplelastname"
...   },
...   DeptEmpl: {
...     Fname: "samplefirstname",
...     Lname: "samplelastname",
...     Salary: "samplehour"
...   }
... })
WriteResult({ "nInserted" : 1 })
>
```

2.READ:

*****READING A DOCUMENT IN A COLLECTION:*****

```
db.DepartmentFinal.find()
```

OUTPUT:

```
Command Prompt - mongo
> db.DepartmentFinal.find()
{"_id": ObjectId("5f2a06b8485ae1475031ac7b"), "Dname": "Research", "Dnumber": "5", "MgrDetails": {"Fname": "Franklin", "Lname": "Wong"}, "DeptEmpl": [{"Fname": "Franklin", "Lname": "Wong", "Salary": "40000"}, {"Fname": "John", "Lname": "Smith", "Salary": "30000"}, {"Fname": "Ramesh", "Lname": "Narayan", "Salary": "38000"}, {"Fname": "Joyce", "Lname": "English", "Salary": "25000"}, {"Fname": "Michael", "Lname": "Morgan", "Salary": "73500"}, {"Fname": "Andrea", "Lname": "Sondrini", "Salary": "65000"}, {"Fname": "James", "Lname": "Millen", "Salary": "75000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac7c"), "Dname": "Administration", "Dnumber": "4", "MgrDetails": {"Fname": "Jennifer", "Lname": "Wallace"}, "DeptEmpl": [{"Fname": "Jennifer", "Lname": "Wallace", "Salary": "43000"}, {"Fname": "Alicia", "Lname": "Zelaya", "Salary": "25000"}, {"Fname": "Ahmad", "Lname": "Jabbar", "Salary": "25000"}, {"Fname": "Wilson", "Lname": "Holmes", "Salary": "72500"}, {"Fname": "Cameron", "Lname": "Thirteen", "Salary": "80000"}, {"Fname": "Richard", "Lname": "Koelbel", "Salary": "85000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac7d"), "Dname": "Headquarters", "Dnumber": "1", "MgrDetails": {"Fname": "James", "Lname": "Borg"}, "DeptEmpl": [{"Fname": "James", "Lname": "Borg", "Salary": "55000"}, {"Fname": "Jisha", "Lname": "Carpenter", "Salary": "15000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac7e"), "Dname": "Software", "Dnumber": "6", "MgrDetails": {"Fname": "Jared", "Lname": "James"}, "DeptEmpl": [{"Fname": "Jared", "Lname": "James", "Salary": "85000"}, {"Fname": "Jon", "Lname": "Jones", "Salary": "45000"}, {"Fname": "Justin", "Lname": "Mark", "Salary": "40000"}, {"Fname": "Brad", "Lname": "Knight", "Salary": "44000"}, {"Fname": "Kim", "Lname": "Grace", "Salary": "79000"}, {"Fname": "Jeff", "Lname": "Chase", "Salary": "44000"}, {"Fname": "Nandita", "Lname": "Ball", "Salary": "62000"}, {"Fname": "John", "Lname": "Ed", "Salary": "30000"}, {"Fname": "Jose", "Lname": "Barbara", "Salary": "35000"}, {"Fname": "Penny", "Lname": "Wolowitz", "Salary": "17000"}, {"Fname": "Debra", "Lname": "Hall", "Salary": "30000"}, {"Fname": "Jake", "Lname": "Sheen", "Salary": "52000"}, {"Fname": "Cindy", "Lname": "Burklow", "Salary": "45000"}, {"Fname": "Zach", "Lname": "Geller", "Salary": "55000"}, {"Fname": "Alex", "Lname": "Yu", "Salary": "50000"}, {"Fname": "Christina", "Lname": "Hisel", "Salary": "45000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac7f"), "Dname": "Hardware", "Dnumber": "7", "MgrDetails": {"Fname": "Alex", "Lname": "Freed"}, "DeptEmpl": [{"Fname": "Alex", "Lname": "Freed", "Salary": "89000"}, {"Fname": "Evan", "Lname": "Wallis", "Salary": "92000"}, {"Fname": "Josh", "Lname": "Zell", "Salary": "56000"}, {"Fname": "Andy", "Lname": "Vile", "Salary": "53000"}, {"Fname": "Tom", "Lname": "Barrand", "Salary": "62500"}, {"Fname": "Jenny", "Lname": "Vos", "Salary": "61000"}, {"Fname": "Chris", "Lname": "Carter", "Salary": "43000"}, {"Fname": "Bonnie", "Lname": "Bays", "Salary": "70000"}, {"Fname": "Alec", "Lname": "Best", "Salary": "60000"}, {"Fname": "Sam", "Lname": "Snedden", "Salary": "48000"}, {"Fname": "Gregory", "Lname": "Laurie", "Salary": "90000"}, {"Fname": "Lisa", "Lname": "House", "Salary": "85000"}, {"Fname": "Leonard", "Lname": "Moody", "Salary": "45000"}, {"Fname": "Joseph", "Lname": "Kirkish", "Salary": "95000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac80"), "Dname": "Sales", "Dnumber": "8", "MgrDetails": {"Fname": "John", "Lname": "James"}, "DeptEmpl": [{"Fname": "John", "Lname": "James", "Salary": "81000"}, {"Fname": "Bob", "Lname": "Bender", "Salary": "96000"}, {"Fname": "Kate", "Lname": "King", "Salary": "44000"}, {"Fname": "Lyle", "Lname": "Leslie", "Salary": "41000"}, {"Fname": "Billie", "Lname": "King", "Salary": "38000"}, {"Fname": "Megan", "Lname": "Jones", "Salary": "62000"}, {"Fname": "Jon", "Lname": "Kramer", "Salary": "41500"}, {"Fname": "Gerald", "Lname": "Small", "Salary": "29000"}, {"Fname": "Arnold", "Lname": "Head", "Salary": "33000"}, {"Fname": "Helga", "Lname": "Pataki", "Salary": "32000"}, {"Fname": "Naveen", "Lname": "Drew", "Salary": "34000"}, {"Fname": "Carl", "Lname": "Reedy", "Salary": "32000"}, {"Fname": "Sammy", "Lname": "Hall", "Salary": "37000"}, {"Fname": "Red", "Lname": "Bachen", "Salary": "33500"}, {"Fname": "Roy", "Lname": "Lewallen", "Salary": "75500"}, {"Fname": "Jennifer", "Lname": "Joy", "Salary": "45000"}, {"Fname": "Erin", "Lname": "Maxfield", "Salary": "72000"}, {"Fname": "Sheldon", "Lname": "Cucucu", "Salary": "35500"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac81"), "Dname": "HR", "Dnumber": "9", "MgrDetails": {"Fname": "Juan", "Lname": "Linda"}, "DeptEmpl": [{"Fname": "Jill", "Lname": "Jarvis", "Salary": "36000"}, {"Fname": "Ray", "Lname": "King", "Salary": "44500"}, {"Fname": "Kim", "Lname": "Ted", "Salary": "50000"}, {"Fname": "Juan", "Lname": "Linda", "Salary": "55000"}, {"Fname": "Willie", "Lname": "Mary", "Salary": "12000"}, {"Fname": "Johnny", "Lname": "Smith", "Salary": "65000"}, {"Fname": "Percy", "Lname": "Liang", "Salary": "55000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac82"), "Dname": "Networking", "Dnumber": "3", "MgrDetails": {"Fname": "Sunil", "Lname": "Gupta"}, "DeptEmpl": [{"Fname": "Sunil", "Lname": "Gupta", "Salary": "80000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac83"), "Dname": "QA", "Dnumber": "11", "MgrDetails": {"Fname": "Joseph", "Lname": "Kirkish"}, "DeptEmpl": []}
{"_id": ObjectId("5f32b9b8aa2f4e0407c57900"), "Dname": "sample1", "Dnumber": "1000", "MgrDetails": {"Fname": "sample firstname", "Lname": "samplelastname"}, "DeptEmpl": [{"Fname": "samplefirstname", "Lname": "samplelastname", "Salary": "samplehour"}]}
```

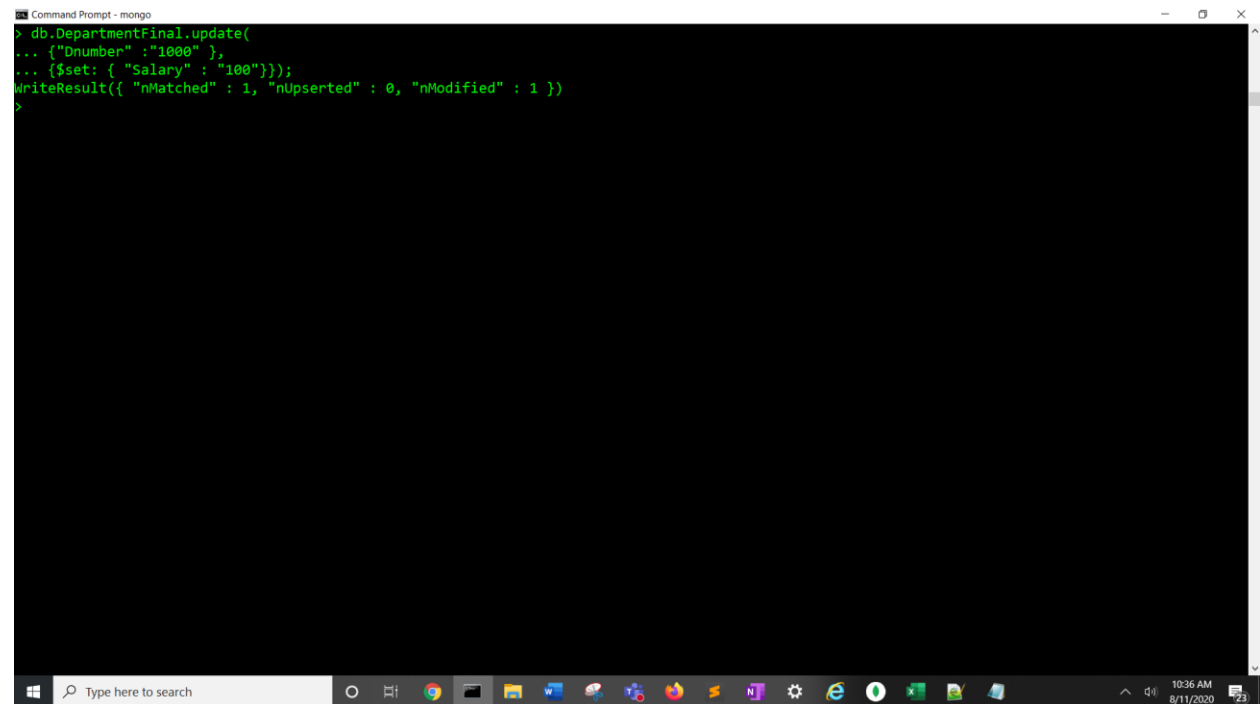
```
Command Prompt - mongo
{"_id": ObjectId("5f2a06b8485ae1475031ac80"), "Dname": "Sales", "Dnumber": "8", "MgrDetails": {"Fname": "John", "Lname": "James"}, "DeptEmpl": [{"Fname": "John", "Lname": "James", "Salary": "81000"}, {"Fname": "Bob", "Lname": "Bender", "Salary": "96000"}, {"Fname": "Kate", "Lname": "King", "Salary": "44000"}, {"Fname": "Lyle", "Lname": "Leslie", "Salary": "41000"}, {"Fname": "Billie", "Lname": "King", "Salary": "38000"}, {"Fname": "Megan", "Lname": "Jones", "Salary": "62000"}, {"Fname": "Jon", "Lname": "Kramer", "Salary": "41500"}, {"Fname": "Gerald", "Lname": "Small", "Salary": "29000"}, {"Fname": "Arnold", "Lname": "Head", "Salary": "33000"}, {"Fname": "Helga", "Lname": "Pataki", "Salary": "32000"}, {"Fname": "Naveen", "Lname": "Drew", "Salary": "34000"}, {"Fname": "Carl", "Lname": "Reedy", "Salary": "32000"}, {"Fname": "Sammy", "Lname": "Hall", "Salary": "37000"}, {"Fname": "Red", "Lname": "Bachen", "Salary": "33500"}, {"Fname": "Roy", "Lname": "Lewallen", "Salary": "75500"}, {"Fname": "Jennifer", "Lname": "Joy", "Salary": "45000"}, {"Fname": "Erin", "Lname": "Maxfield", "Salary": "72000"}, {"Fname": "Sheldon", "Lname": "Cucucu", "Salary": "35500"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac81"), "Dname": "HR", "Dnumber": "9", "MgrDetails": {"Fname": "Juan", "Lname": "Linda"}, "DeptEmpl": [{"Fname": "Jill", "Lname": "Jarvis", "Salary": "36000"}, {"Fname": "Ray", "Lname": "King", "Salary": "44500"}, {"Fname": "Kim", "Lname": "Ted", "Salary": "50000"}, {"Fname": "Juan", "Lname": "Linda", "Salary": "55000"}, {"Fname": "Willie", "Lname": "Mary", "Salary": "12000"}, {"Fname": "Johnny", "Lname": "Smith", "Salary": "65000"}, {"Fname": "Percy", "Lname": "Liang", "Salary": "55000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac82"), "Dname": "Networking", "Dnumber": "3", "MgrDetails": {"Fname": "Sunil", "Lname": "Gupta"}, "DeptEmpl": [{"Fname": "Sunil", "Lname": "Gupta", "Salary": "80000"}]}
{"_id": ObjectId("5f2a06b8485ae1475031ac83"), "Dname": "QA", "Dnumber": "11", "MgrDetails": {"Fname": "Joseph", "Lname": "Kirkish"}, "DeptEmpl": []}
{"_id": ObjectId("5f32b9b8aa2f4e0407c57900"), "Dname": "sample1", "Dnumber": "1000", "MgrDetails": {"Fname": "sample firstname", "Lname": "samplelastname"}, "DeptEmpl": [{"Fname": "samplefirstname", "Lname": "samplelastname", "Salary": "samplehour"}]}
```

3.UPDATE:

*****UPDATING A RECORD IN A COLLECTION.*****

```
db.DepartmentFinal.update(  
{"Dnumber" : "1000" },  
{$set: { "Salary" : "100" }});
```

OUTPUT:

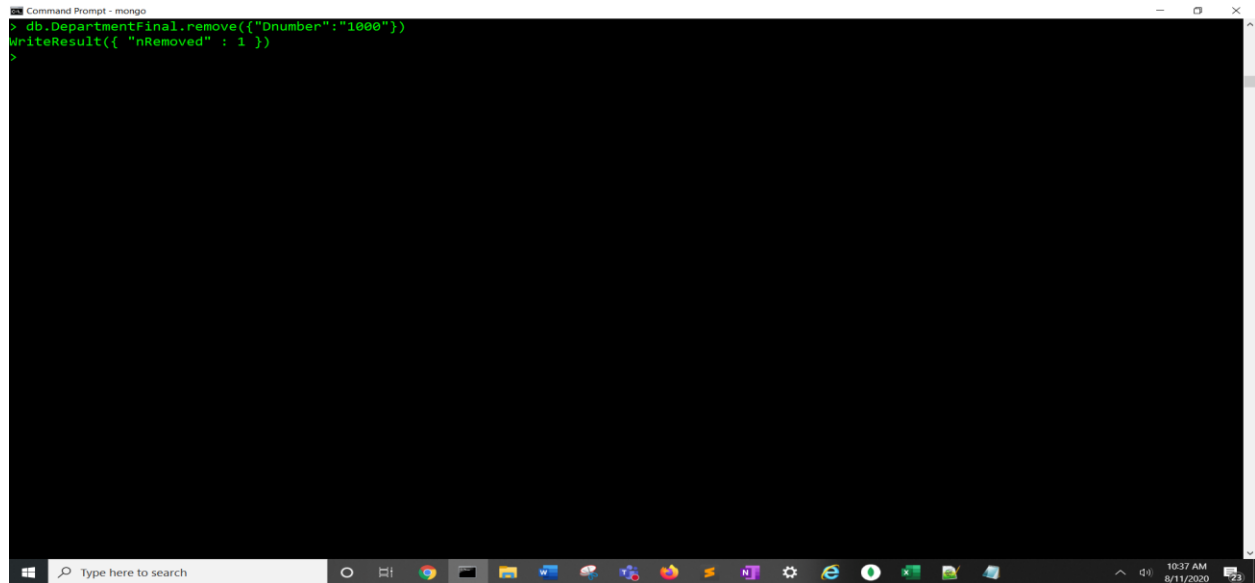


```
Command Prompt - mongo  
> db.DepartmentFinal.update(  
... {"Dnumber" : "1000" },  
... {$set: { "Salary" : "100" }});  
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })  
>
```

4.DELETE:

*****DELETING A RECORD IN A COLLECTION:*****

```
db.DepartmentFinal.remove({"Dnumber":"1000"})
```



```
Command Prompt - mongo
> db.DepartmentFinal.remove({"Dnumber":"1000"})
WriteResult({"nRemoved" : 1 })
>
```

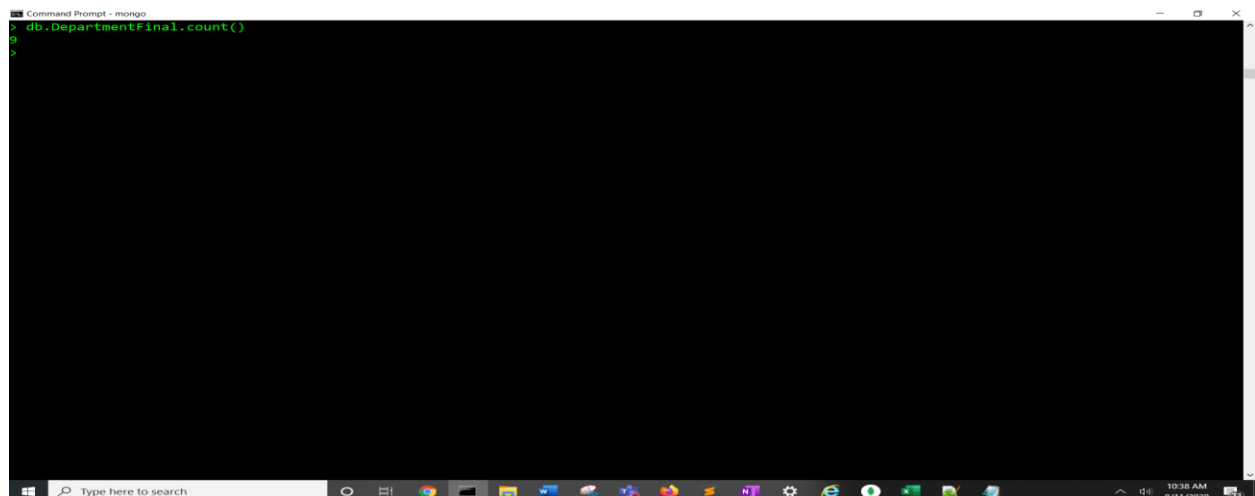
The screenshot shows a Windows Command Prompt window titled "Command Prompt - mongo". The user has entered the command `db.DepartmentFinal.remove({"Dnumber":"1000"})`, and the prompt has responded with `WriteResult({"nRemoved" : 1 })`, indicating that one record was successfully removed. The Windows taskbar at the bottom shows the time as 10:37 AM on 8/11/2020.

5.COUNT:

*****COUNTING A DOCUMENT IN A COLLECTION:*****

```
db.DepartmentFinal.count()
```

OUTPUT:



```
Command Prompt - mongo
> db.DepartmentFinal.count()
9
>
```

The screenshot shows a Windows Command Prompt window titled "Command Prompt - mongo". The user has entered the command `db.DepartmentFinal.count()`, and the prompt has responded with `9`, indicating that there are 9 documents in the collection. The Windows taskbar at the bottom shows the time as 10:38 AM on 8/11/2020.

6.findOne():

db.DepartmentFinal.findOne()

OUTPUT:

```
Command Prompt - mongo
> db.DepartmentFinal.findOne()
{
  "_id" : ObjectId("5f2a06b8485ae1475031ac7b"),
  "Dname" : "Research",
  "Dnumber" : "5",
  "MgrDetails" : {
    "Fname" : "Franklin",
    "Lname" : " Wong"
  },
  "DeptEmpl" : [
    {
      "Fname" : "Franklin",
      "Lname" : " Wong",
      "Salary" : "40000"
    },
    {
      "Fname" : "John",
      "Lname" : " Smith",
      "Salary" : "30000"
    },
    {
      "Fname" : "Ramesh",
      "Lname" : " Narayan",
      "Salary" : "38000"
    },
    {
      "Fname" : "Joyce",
      "Lname" : " English",
      "Salary" : "25000"
    },
    {
  }
```