Assignment - B5

Title:- Implement 5 basics query using MongoDB.

Problem Statement:- Design & implement any 5 querries using MongoDB.

Objective :-

1] Understand the concept of MongoDB

2] Understand the concept of MongoDB on two tier.

3] Understand the basic commands of MongoDB.

S/w & H/w Requirements :- MongoDB, 64 bit OS.

Outcome :- Students will be able to

1] Implement the commands on two tier.

2] Implement the database in MongoDB

Theory :-

MongoDB :-

MongoDB is a cross platform document oriented database that provides high performance. High availability & easy scalability. MongoDB works on concept of collection & document. A single MongoDB server typically has multiple databases.

Collection :-

Collection is group of mongoDB documents. It is the equivalent of an RDBMS table. A collection exists within a single database. Collection do not enforce a schema. Document within a collection can have different fields. Typically all documents in a collection are of similar or related purpose.

Document :-

A document is a set of key-value pairs. Documents have dynamic schema. Dynamic schema means that document in same collection do not need to have the same set of fields or structure & common fields in a collection document may hold different types of data.

Advantages of mongoDB over RDBMS

1) Schema less
2) Structure of single object is clear.
3) No complex joins.
4) Deep query ability.
5) Tuning.
6) Conversion / mapping of application objects to database object not needed.
7) Uses internal memory for storing the working set enabling faster access of data

Conclusion :-

In this assignment, we have learned & implemented basic commands of mongoDB to query documents also develeoped queries to sort, update insert, delete. the document from the collection.

```
MongoDB Enterprise > db.hostInfo()
{
        "system" : {
                "currentTime" : ISODate("2020-11-03T05:15:01.076Z"),
                "hostname" : "Atharva",
                "cpuAddrSize" : 64,
                "memSizeMB" : 8097,
                "memLimitMB" : 8097,
                "numCores" : 4,
                "cpuArch" : "x86_64",
                "numaEnabled" : false
        },
        "os" : {
                "type" : "Windows",
                "name" : "Microsoft Windows 8.1",
                "version" : "6.3 (build 9600)"
        },
        "extra" : {
                "pageSize" : NumberLong(4096)
        },
        "ok" : 1
}
```

```
MongoDB Enterprise > db.stats()
{
        "db" : "test",
        "collections" : 4,
        "views" : 0,
        "objects" : 34,
        "avgObjSize" : 113.82352941176471,
        "dataSize" : 3870,
        "storageSize" : 126976,
        "numExtents" : 0,
        "indexes" : 6,
        "indexSize" : 159744,
        "fsUsedSize" : 125528727552,
        "fsTotalSize" : 161161932800,
        "ok" : 1
}
```

```
MongoDB Enterprise > db.Embedded_Doc.find().limit(3)
{ "_id" : ObjectId("5f97a99a840fdea4aed5a1c6"), "EmpId" : 1, "Name" : { "fname" : "Rohan", "lname" : "Patil" }, "Age" : 20, "Salary" : 25000, "Experience" : 2 }
{ "_id" : ObjectId("5f97a99a840fdea4aed5a1c7"), "EmpId" : 2, "Name" : { "fname" : "Suraj", "lname" : "Sharma" }, "Age" : 24, "Salary" : 30000, "Experience" : 4 }
{ "_id" : ObjectId("5f97a99a840fdea4aed5a1c8"), "EmpId" : 3, "Name" : { "fname" : "Aniket", "lname" : "Satav" }, "Age" : 24, "Salary" : 26000, "Experience" : 2 }
```

```
MongoDB Enterprise > db.Embedded_Doc.renameCollection("Embedded_doc")
{ "ok" : 1 }
MongoDB Enterprise > show collections
Cars
Customer
Embedded_doc
Employee
Student
cars
```