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Name: Shubham Chavate
Roll. No.: 31118

DBSL lab

Assignment 04 (Group-B)

Title: Database connectivity

Problem Statement

Write a program to implement mongo DB database connectivity with any Front-end language to implement database navigation operations.

Objectives:

- Understand concept of connectivity between java & databases
- Understand how java can invoke CRUD operation.

Software & hardware requirements:

- 64-bit windows-10 operating system
- Intel i5-8th gen 4-core CPU,
- 8GB RAM & 512GB SSD storage
- mongoDB & eclipse updated to latest version.

Theory related concepts:

- Before starting with mongoDB ensure that you have MongoDB CLIENT & Java set up on a machine
- Connect to the database.
  - Specify database name.
  - If database doesn't exist mongoDB creates it automatically.

```
MongoClient mongo = new MongoClient("localhost",
MongoDatabase db = mongo.getDatabase("bca_db",27017)
```

- Create a Collection

```
database.createCollection("students")
```

- Selection Collection.

```
MongoCollection<Document> collection =
        database.getCollection("students")
```

- Insert a document

```
Document document = new Document("name", name).
        .append("Subject", Subject).
        .append("marks", marks);
collection.insertOne(document)
```

- Retrieve all documents

```
FindIterable<Document> iterDoc = collection.find();
Iterator it = iterDoc.iterator();
while (it.hasNext()) {
        System.out.println(it.next());
}
```

- Update document.

```
collection.updateOne(filters.eq("name", "Tony"),
                Update.set("marks", 100));
```

- Delete document

```
collection.deleteOne(filters.eq("name", "steve"));
```

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Testcases:

I have attached separate file containing code & output screenshot of testcases.

Conclusion:

Hence in this assignment I learned about connectivity of mongoDB with Java & implemented basic operations.