**PRACTICAL NO.5**

**5. Java and MongoDB**

**a. Connecting Java with MongoDB and inserting, retrieving, updating and deleting.**

***Inserting:***

***import com.mongodb.client.MongoCollection;***

***import com.mongodb.client.MongoDatabase;***

***import com.mongodb.MongoClient;***

***import com.mongodb.MongoCredential;***

***import org.bson.Document;***

public class InsertingDocument

{

public static void main(String args[])

{

MongoClient mongo=new MongoClient("localhost",27017);

System.out.println("Connected to Database successfully");

MongoDatabase database = mongo.getDatabase("myDb1");

MongoCollection<Document> collection= database.getCollection("sampleCollection1");

System.out.println("Collection sampleCollection1 selected successfully");

Document document =new Document();

document.append("id",1);

document.append("description","AWP");

document.append("likes",100);

document.append("url","http://www.awp.com");

document.append("by","DOT NET Framework");

document.append("project\_by","Nutan");

collection.insertOne(document);

System.out.println("Documents inserted successfully");

}

}

**TO RUN JAVA CODE:**

**D:\java>javac InsertingDocument.java**

**D:\java>InsertingDocument.java**

**> show dbs**

admin 0.000GB

college 0.000GB

college1 0.000GB

college2 0.000GB

config 0.000GB

local 0.000GB

myDb1 0.000GB

restaurant 0.001GB

restaurants 0.001GB

restaurants1 0.001GB

student 0.000GB

test 0.000GB

tyit2425 0.000GB

**> use myDb1**

switched to db myDb1

> db.dropDatabase()

{ "dropped" : "myDb1", "ok" : 1 }

**Retrieving:**

import com.mongodb.client.MongoCollection;

import com.mongodb.client.MongoDatabase;

import com.mongodb.MongoClient;

import com.mongodb.MongoCredential;

import org.bson.Document;

import java.util.Iterator;

import com.mongodb.client.FindIterable;

public class RetrivingAllDocument

{

public static void main(String args[])

{

MongoClient mongo=new MongoClient("localhost",27017);

System.out.println("Connected to Database successfully");

MongoDatabase database = mongo.getDatabase("myDb1");

MongoCollection<Document> collection= database.getCollection("sampleCollection1");

System.out.println("Collection sampleCollection1 selected successfully");

FindIterable<Document> iterDoc=collection.find();

int i =1;

Iterator it=iterDoc.iterator();

while(it.hasNext())

{

System.out.println(it.next());

i++;

}

}

}

**D:\java>javac RetrivingAllDocument.java**

**D:\java>java RetrivingAllDocument**

show dbs

admin 0.000GB

college 0.000GB

college1 0.000GB

college2 0.000GB

config 0.000GB

local 0.000GB

myDb1 0.000GB

restaurant 0.001GB

restaurants 0.001GB

restaurants1 0.001GB

student 0.000GB

test 0.000GB

tyit2425 0.000GB

> use myDb1

switched to db myDb1

> show collections

sampleCollection1

> db.sampleCollection1.find()

{ "\_id" : ObjectId("66c305216d78e52144fe1f6f"), "id" : 1, "description" : "AWP", "likes" : 100, "url" : "http://www.awp.com", "by" : "DOT NET Framework", "project\_by" : "Nutan" }

Aug 19, 2024 2:17:16 PM com.mongodb.diagnostics.logging.JULLogger log

INFO: Opened connection [connectionId{localValue:2, serverValue:11}] to localhost:27017

Document{{\_id=66c305216d78e52144fe1f6f, id=1, description=AWP, likes=100, url=http://www.awp.com, by=DOT NET Framework, project\_by=Nutan}}

**Updating**

import java.net.UnknownHostException;

import com.mongodb.BasicDBObject;

import com.mongodb.DB;

import com.mongodb.DBCollection;

import com.mongodb.DBObject;

import com.mongodb.MongoClient;

import com.mongodb.WriteResult;

public class UpdatingDocument

{

public static void main(String [] args)

{

MongoClient mongo = new MongoClient("localhost",27017);

DB db= mongo.getDB("myDb1");

DBCollection col = db.getCollection("sampleCollection");

DBObject query = new BasicDBObject("id",1);

DBObject update = new BasicDBObject();

update.put("$set",new BasicDBObject("likes",300));

WriteResult result = col.update(query, update);

mongo.close();

}

}

**C:\Program Files\MongoDB\Server\4.0\bin>mongod**

**C:\Program Files\MongoDB\Server\4.0\bin>mongo**

**> show dbs**

admin 0.000GB

college 0.001GB

college1 0.000GB

config 0.000GB

db1 0.000GB

hotel 0.001GB

local 0.000GB

myDb1 0.000GB

myDb3 0.000GB

**> use myDb1**

switched to db myDb1

**> show collections**

Sample Collection

sampleCollection

**> db.sampleCollection.find()**

{ "\_id" : ObjectId("66c30218cb67a93821ad4c8b"), "id" : 1, "description" : "AWP", "likes" : 300, "url" : "http://www.awp.com", "by" : "DOT NET Framework", "project\_by" : "Vaishnavi" }

**D:\java2>javac UpdatingDocument.java**

Note: UpdatingDocument.java uses or overrides a deprecated API.

Note: Recompile with -Xlint:deprecation for details.

**D:\java2>java UpdatingDocument**

**Deleting:**

import com.mongodb.client.MongoCollection;

import com.mongodb.client.MongoDatabase;

import com.mongodb.MongoClient;

import com.mongodb.MongoCredential;

import org.bson.Document;

import com.mongodb.client.model.Filters;

public class DeletingDocuments

{

public static void main(String args[])

{

MongoClient mongo =new MongoClient("localhost",27017);

System.out.println("connected to the database successfully");

MongoDatabase database =mongo.getDatabase("myDb25");

MongoCollection<Document> collection =database.getCollection("sampleCollection1");

System.out.println("collection samplecollection1 selected successfully");

collection.deleteOne(Filters.eq("id",1));

System.out.println("Document deleted successfully.....");

}

}