Chit No: 18 SPPU DBMS LAB Write a program to implement MongoDB database connectivity with any front end language to implement Database navigation operations (add, delete, edit etc.)

Required JDk, eclipse, MongoDB installed and .jar file

Step 1:

● Open Eclipse

● Create Java Project (File-&gt;New-&gt;Other-&gt;Java Proj-&gt;Next-&gt;provide Name of Proj-&gt;next-

&gt;Finish)

● Create new class (src-&gt;right click-&gt;class-&gt;name-&gt;main method-&gt;default package)

Step 2

● For adding .jar file mongo-java-driver-2.12.2.jar

● right click on project-&gt;build path-&gt;configure build path-&gt;java build path-&gt;library-

&gt;classpath-&gt;add external jars—-----for adding, path….mongodb folder .jar……apply and

close.

B4.java (Execute this B4.java and validate in MongoDB)

import com.mongodb.\*;

public class B4

{

public static void main( String args[] )

{

try

{

MongoClient mongoClient = new MongoClient( &quot;localhost&quot; , 27017 );

DB db = mongoClient.getDB( &quot;ajk&quot; );

System.out.println(&quot;Connect to database successfully&quot;);

DBCollection col1=db.createCollection(&quot;st2&quot;,new BasicDBObject());

System.out.println(&quot;collection created&quot;);

DBCollection col2=db.createCollection(&quot;fa2&quot;,new BasicDBObject());

System.out.println(&quot;collection created&quot;);

BasicDBObject doc1 = new BasicDBObject();

doc1.put(&quot;Rno&quot;, &quot;1&quot;);

doc1.put(&quot;Name&quot;, &quot;AJK&quot;);

doc1.put(&quot;Marks&quot;, &quot;75&quot;);

BasicDBObject doc2 = new BasicDBObject();

doc2.put(&quot;Rno&quot;, &quot;2&quot;);

doc2.put(&quot;Name&quot;, &quot;QWE&quot;);

doc2.put(&quot;Marks&quot;, &quot;80&quot;);

col1.insert(new BasicDBObject[] {doc1,doc2});

}

catch(Exception e)

{

System.err.println( e.getClass().getName() + &quot;: &quot; + e.getMessage() );

}

}

}

Output:

(base) dypiemr@dypiemr-OptiPlex-3020:~$ mongo

&gt; show databases

admin 0.000GB

aj 0.000GB

ajk 0.000GB

config 0.000GB

local 0.000GB

myDb 0.000GB

test 0.000GB

&gt; use ajk

switched to db ajk

&gt; show collections

fa1

fa2

st1

st2

&gt; db.st2.find().pretty();

{

&quot;\_id&quot; : ObjectId(&quot;66ff8855848e88f93789438f&quot;),

&quot;Rno&quot; : &quot;1&quot;,

&quot;Name&quot; : &quot;AJK&quot;,

&quot;Marks&quot; : &quot;75&quot;

}

{

&quot;\_id&quot; : ObjectId(&quot;66ff8855848e88f937894390&quot;),

&quot;Rno&quot; : &quot;2&quot;,

&quot;Name&quot; : &quot;QWE&quot;,

&quot;Marks&quot; : &quot;80&quot;

}

&gt;

Menu Driven Program:

import java.net.UnknownHostException;

import java.util.Scanner;

import com.mongodb.\*;

public class MDB

{

private static void choice\_input()

{

System.out.println(&quot;\n1.insert \n2.update \n3.delete \n4.show \n5.Exit&quot;);

}

public static void main(String[] args)

{

String key, value;

Scanner scanner = new Scanner(System.in);

int choice;

try

{

Mongo mongo = new Mongo(&quot;localhost&quot;, 27017);

DB db = mongo.getDB(&quot;AJK\_MDB&quot;);

DBCollection collection = db.getCollection(&quot;Student\_mdb&quot;);

do

{

choice\_input();

System.out.println(&quot;Enter your choice: &quot;);

choice = scanner.nextInt();

switch (choice)

{

case 1:

BasicDBObject document = new BasicDBObject();

String ch;

do

{

System.out.println(&quot;Enter key: &quot;);

key = scanner.next();

System.out.println(&quot;Enter value: &quot;);

value = scanner.next();document.put(key, value);

System.out.println(&quot;Do you want to enter

more(y/n)? &quot;);

ch = scanner.next();

}

while (!ch.equals(&quot;n&quot;));

collection.insert(document);

break;

case 2:

BasicDBObject searchObj = new BasicDBObject();

System.out.println(&quot;Enter searched key: &quot;);

key = scanner.next();

System.out.println(&quot;Enter searched value: &quot;);

value = scanner.next();

searchObj.put(key, value);

BasicDBObject newObj = new BasicDBObject();

System.out.println(&quot;Enter new key: &quot;);

key = scanner.next();

System.out.println(&quot;Enter new value: &quot;);

value = scanner.next();

newObj.put(key, value);

collection.update(searchObj, newObj);

break;

case 3:

System.out.println(&quot;Enter removable key: &quot;);

key = scanner.next();

System.out.println(&quot;Enter removable value: &quot;);

value = scanner.next();

BasicDBObject removableObj = new BasicDBObject();

removableObj.put(key, value);

collection.remove(removableObj);

break;

case 4:

DBCursor cursorDoc = collection.find();

while (cursorDoc.hasNext())

{

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

}

break;

case 5:

System.exit(0);

break;

}

}

while(choice != 6);

}

catch (UnknownHostException | MongoException e)

{

e.printStackTrace();

}

}

}