❖ Assignment NO 12

Title: Write a program to implement MongoDB database connectivity with PHP/ python/Java. Implement Database navigation operations (add, delete, edit etc.) using ODBC/JDBC.

```
package aaa; import

com.mongodb.*;

import java.net.UnknownHostException;

import java.util.lterator;

import java.util.List;

import java.util.Scanner;

import java.util.Set; public

class mongo {

DB db;

MongoClient mongoClient = null;

String database_name;

String cname; DBCollection dbc; mongo() throws UnknownHostException

llestablishing connection and authentication {

mongoClient=new MongoClient("localhost",27017); }

private void createcollection() {

if(db==null) //no database selected  {

System.out.println("please select database in order to create collection option(1)"); }

else{

Scanner sc = new Scanner(System.in);

System.out.printin("Enter collection name you want to create");

String cname = sc.next();

Set<String> allcoll=db.getCollectionNames): if(allcoll.contains(cname)){

System.out.printin("Collection already exists"); } else{

DBCollection dbc;

dbc = db.createCollection(cname, null);

System.out.printin("Collection createdin database" + db +"is " +dbc); } }}
```

```
@SuppressWarnings("deprecation") private
void useDatabase() {
System.out.println("Enter databse name which you want to use(if database exists that
will be used else new database will created automatically)"); Scanner sc=new
Scanner(System.in); database_name=sc.next();
ListsString> dbs=mongoClient.getDatabaseNames(): if(ldbs.comtains(database_name))
 System.out.printin("No database with such name found hence creating new database");
db=mongoClient.getDB(database_name);
System.out.printlnç'database connection was successful and data baseselected is
"+db+"in"); }
private void ListDown() {
ListString dbs=mongoClient.getDatabaseNames() for(String
name : dbs){
System.out.println(name); }
private void DropDB) {
System.out.println("Enter databse name which you want to drop");
Scanner sc=new Scanner(System.in);
String dbname=sc.next();
ListString> dbs=mongoClient.getDatabaseNames(); if(ldbs.contains(dbname))
System.out.println("No such database exists"); else
mongoClient.dropDatabase(dbname); }
private void getCollectiona() if(db==null)
//no database selected
System.out.println("please select database in order tocreate collection option(1)"); }
else{
Scanner sc=new Scanner(System.in)
System.out.println("Enter collection name you want to select"); cname
= Sc.next();
db=mongoClient.getDB(database_name.toString()); dbc=db.getCollection(cname);
System.out.println("Collection got is: "+dbc); } }
private void InsertDocument() {
```

```
BasicDBObject bdbo=new BasicDBObject():
bdbo.put("name","sayali"); bdbo.put("age",18);
bdbo.put("Department","computer");
bdbo.put("pointer",9.5);
dbc.insert(bdbo,WriteConcern.ACKNOWLEDGED);
BasicDBObjectasd=new BasicDBObject();
asd.put(name","student"); asd.put'age",56);
asd.put("Department","computer"); asd.put("pointer",9.5);
dbc.insert(asd,WriteConcern.ACKNOWLEDGED);
//dbc.insertOne(bdbo); }
private void update() {
BasicDBObject newDocument = new BasicDBObject(); newDocument.put("$set",
new BasicDBObject().append("name","sayu"); BasicDBObject searchQuery =
new BasicDBObject().append("age",18); dbc.update(searchQuery,
newDocument); }
private void delete() {
BasicDBObject document = new BasicDBObject(); document.put("name","student");
dbc.remove(document): }
private void find() {
if(db==null) //no database selected {
System.out.printin("please select database in order to create collection option(1)")
else{
DBCursor dbcu =db.getCollection(cname).find();
Iterator <DBObject> it = dbcu.iterator(); while
(it.hasNext())  {
System.out.println(it.next(); } }}
public void MenuDriven()
{ int
choice;
char ch = 0;
```

```
Scanner sc=new Scanner(System.in);
do{
System.out.printin("Enter number for required operation\n0)List down
Databse\n1)Connect to database\n2)Drop DB\n3)Create Collection\n4)
Get/Select Collection\n5)Insert Document\n6)update document\n7)Retrieve
Document\n8)Delete"); choice=sc.nextlnt(); switch (choice) {

case 0:
{ListDown():
break;} case
1: {
useDatabase();
break;} case 2:
{DropDB();break;}
case 3: {
createcollection();
break;} case 4: {
(getCollectiona();
break;} case 5:
{InsertDocument(); break;}
case 6: {
update();
break;}
case 7:
{ find();
break}
case 8:{
delete()
break;} }
System.out.println("Do you want to continue?(y/n)"):
ch=sc.next().trim().charAt(0); }
```

```
while (ch==y'||ch=="Y); }
public static void main(Stringl] args) throws UnknownHostException {
mongo mj=new mongo);
mj.MenuDriven();} }
```

Output:

```
Enter number for required operation
0)List down Databse
1)Connect to database
2)Drop DB
3)Create Collection
4)Get/Select Collection
5)Insert Document
6)update document
7)Retrieve Document
8)Delete
0
admin
config db
java
javapoint
javatpoint
local te
Do you want to continue?(y/n)
y
Enter number for required operation
0)List down Databse
1)Connect to database
2)Drop DB
3)Create Collection
4)Get/Select Collection
```

5)Insert Document

6)update document

7)Retrieve Document

8)Delete

Enter databse name which you want to use(if database exists that will be used else new database

will created automatically)

te

database connection was successful and data base selected is DB{name='te'} Do

you want to continue?(y/n)

y

Enter number for required operation

0)List down Databse

1)Connect to database

2)Drop DB

3)Create Collection

4)Get/Select Collection

5 Insert Document

6)update document

7)Retrieve Document

8)Delete

3

Enter collection name you want to create y

Collection created in database DB{name="te} is DBCollection{database=DB{name='te'), name='y'}

Do you want to continue?(y/n)

y

Enter number for required operation

0)List down Databse

1)Connect to database

2)Drop DB

3)Create Collection

4)Get/Select Collection

5)Insert Document

6)update document

7)Retrieve Document

8)Delete

4

Enter collection name you want to select

y

Collection gotis: DBCollection{database=DB{name="te), name=y} Do

you want to continue?(y/n)

y

Enter number forrequired operation

0)List down Databse

1)Connect to database

2)Drop DB

3)Create Collection

4)Get/Select Collection

5)Insert Document

6)update document

7)Retrieve Document

8)Delete

5

Do you want to continue?(y/n)

y

Enter number for required operation

0)List down Databsse

1)Connect to database

2)Drop DB

3)Create Collection

4)Get/Select Collection

5)Insert Document

6)update document

7)Retrieve Document

8)Delete

6

Do you want to continue?(y/n)

y

Enter number for required operation

0)List down Databse

1)Connect to database

2)Drop DB

3)Create Collection

4)Get/Select Collection

5)Insert Document

6)update document

7)Retrieve Document

8)Delete

7

{"_id": {"$oid": "5bc586e82a701a28e7d611dd"}, "name": "sayu", "age": 18, "Department"

"computer", "pointer": 9.5}

{"id:("$oid": "5bc586e92a701a28e7d611de"},"name": "student", "age" : 56, "Department":

"computer", "pointer" : 9.5} Do

you want to continue?(y/n)

y

Enter number for required operation

0)List down Databse

1)Connect to database

2)Drop DB

3)Create Collection

4)Get/Select Collection

5)Insert Document

6)update document

7)Retrieve Document

8)Delete

8

Do you want to continue?(y/n)

y

Enter number for required operation

0)List down Databse

1)Connect to database

2)Drop DB

3)Create Collection

4)Get/Select Collection

5)Insert Document

6)update document

7)Retrieve Document

8)Delete

7

{"_id" :{"$oid" : "5bc586e82a701a28e7d61 1dd"), "name": "sayu", "age": 18,
"Department":

"computer","pointer": 9.5}

Do you want to continue?(y/n)