Oracle - JDBC Connectivity Assignment A8

Required JDk, eclipse, oracle and .jar file

Step 1:

- Open Eclipse
- Create Java Project (File->New->Other->Java Proj->Next->provide Name of Proj->next->Finish)
- Create new class (src->right click->class->name->main method->default package)

Step 2

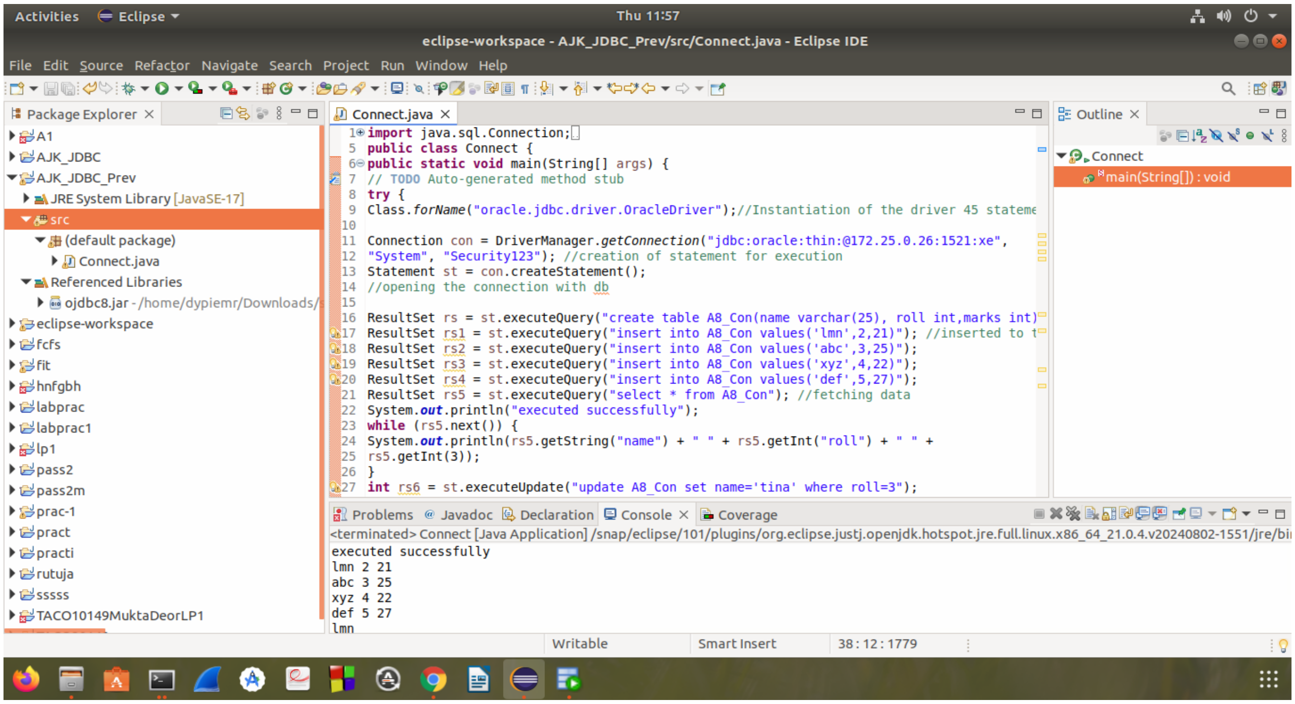
- For adding .jar file **ojdbc8.jar**
- right click on project->build path->configure build path->java build path->library->classpath->add external jars——-----for adding, path….c->oracle->apps-> then search for .jar……apply and close.

Connect.java (Execute this Connect.java and validate in Oracle)

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.Statement;
public class Connect
{
public static void main(String[] args)
{
try
{
Class.forName("oracle.jdbc.driver.OracleDriver");
Connection con = DriverManager.getConnection("jdbc:oracle:thin:@172.25.0.26:1521:xe",
"System", "Security123");
Statement st = con.createStatement();

ResultSet rs = st.executeQuery("create table A8_Con(name varchar(25), roll int,marks int)");
ResultSet rs1 = st.executeQuery("insert into A8_Con values('lmn',2,21)");
ResultSet rs2 = st.executeQuery("insert into A8_Con values('abc',3,25)");
ResultSet rs3 = st.executeQuery("insert into A8_Con values('xyz',4,22)");
ResultSet rs4 = st.executeQuery("insert into A8_Con values('def',5,27)");
ResultSet rs5 = st.executeQuery("select * from A8_Con"); //fetching data
System.out.println("executed successfully");

while (rs5.next())
{
```

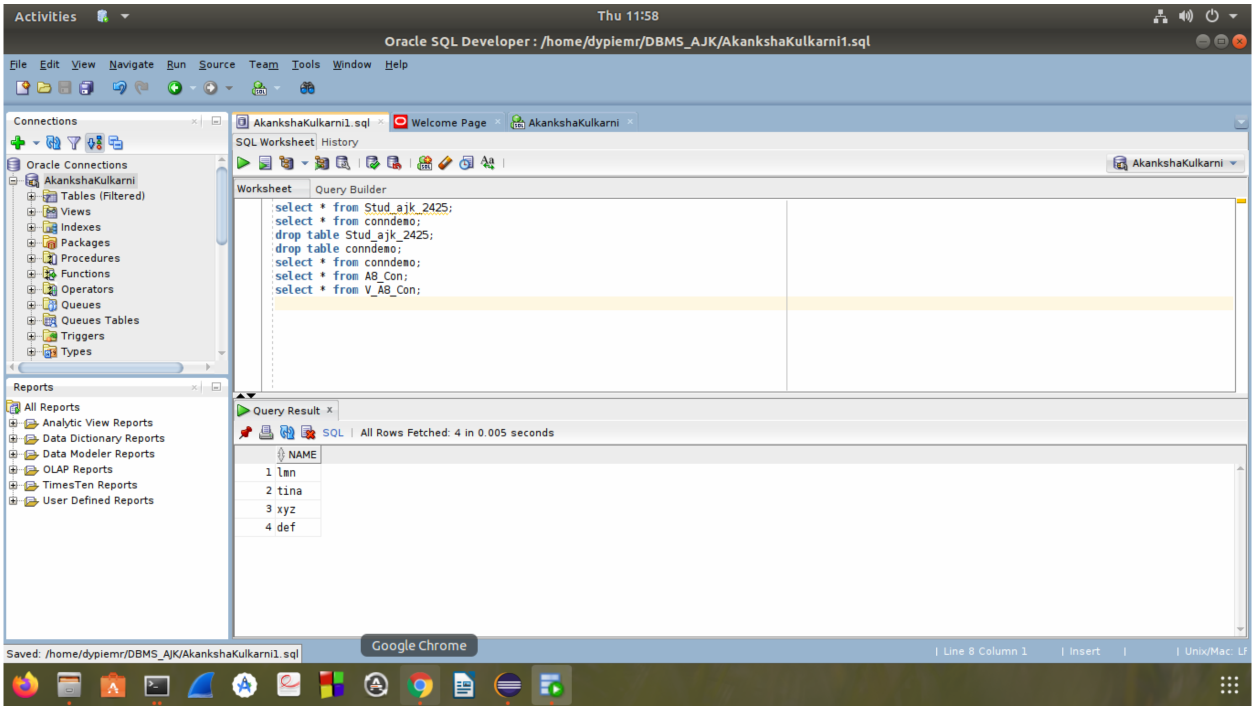
```
System.out.println(rs5.getString("name") + " " + rs5.getInt("roll") + " " + rs5.getInt(3));
}
int rs6 = st.executeUpdate("update A8_Con set name='tina' where roll=3");
ResultSet rs8 = st.executeQuery("create view V_A8_Con as select name from A8_Con");
ResultSet rs9 = st.executeQuery("select * from V_A8_Con");
while (rs9.next())
{
System.out.println("" + rs9.getString(1));
}

ResultSet rs10 = st.executeQuery("alter table A8_Con add admissionDate Date");
ResultSet rs11 = st.executeQuery("alter table A8_Con drop column admissionDate");

rs.close();
st.close();
con.close();
}

catch (Exception ex)
{
System.out.println("Error: " + ex);
}

}
}
```

Output:



```java
import java.sql.Connection;
public class Connect {
public static void main(String[] args) {
// TODO Auto-generated method stub
try {
Class.forName("oracle.jdbc.driver.OracleDriver");//Instantiation of the driver 45 stateme

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@172.25.0.26:1521:xe",
"System", "Security123"); //creation of statement for execution
Statement st = con.createStatement();
//opening the connection with db

ResultSet rs = st.executeQuery("create table A8_Con(name varchar(25), roll int,marks int)
ResultSet rs1 = st.executeQuery("insert into A8_Con values('lmn',2,21)"); //inserted to t
ResultSet rs2 = st.executeQuery("insert into A8_Con values('abc',3,25)");
ResultSet rs3 = st.executeQuery("insert into A8_Con values('xyz',4,22)");
ResultSet rs4 = st.executeQuery("insert into A8_Con values('def',5,27)");
ResultSet rs5 = st.executeQuery("select * from A8_Con"); //fetching data
System.out.println("executed successfully");
while (rs5.next()) {
System.out.println(rs5.getString("name") + " " + rs5.getInt("roll") + " " +
rs5.getInt(3));
}
int rs6 = st.executeUpdate("update A8_Con set name='tina' where roll=3");
```

```
<terminated> Connect [Java Application] /snap/eclipse/101/plugins/org.eclipse.justj.openjdk.hotspot.jre.full.linux.x86_64_21.0.4.v20240802-1551/jre/bi
executed successfully
lmn 2 21
abc 3 25
xyz 4 22
def 5 27
lmn
```

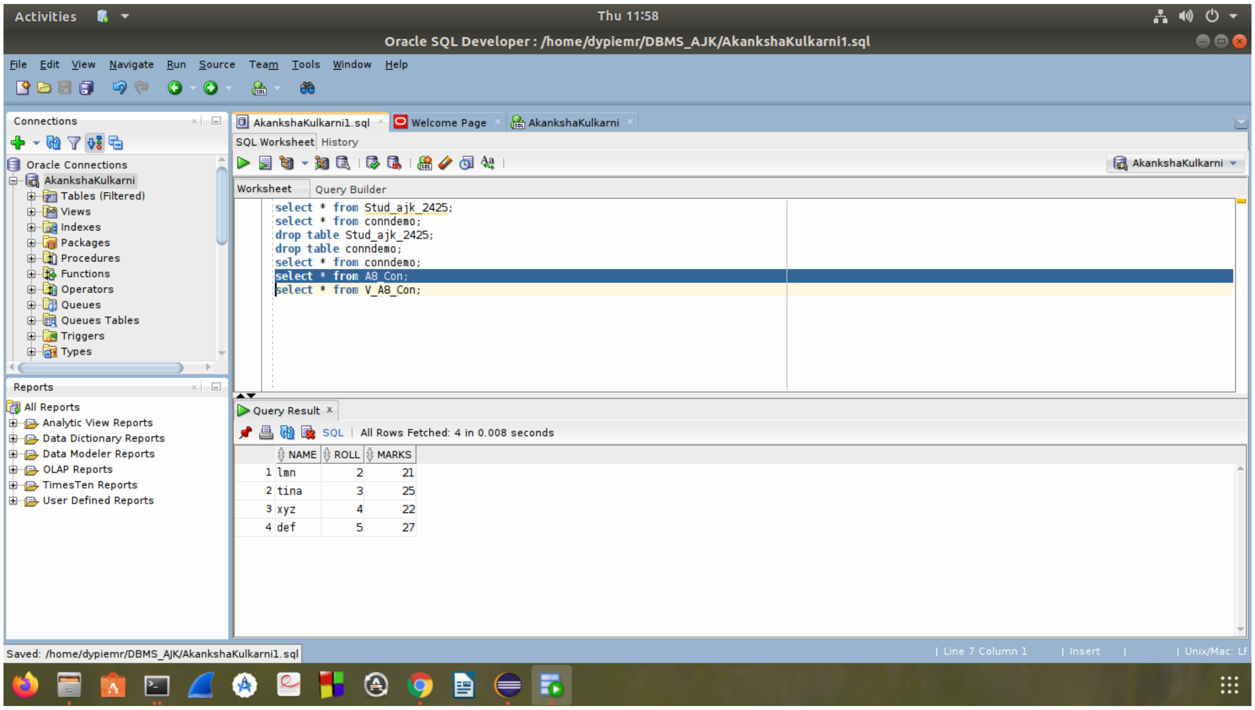


```sql
select * from Stud_ajk_2425;
select * from conndemo;
drop table Stud_ajk_2425;
drop table conndemo;
select * from conndemo;
select * from A8_Con;
select * from V_A8_Con;
```

All Rows Fetched: 4 in 0.005 seconds

	NAME
1	lmn
2	tina
3	xyz
4	def

Saved: /home/dypiemr/DBMS_AJK/AkankshaKulkarni1.sql



```
select * from Stud_ajk_2425;
select * from conndemo;
drop table Stud_ajk_2425;
drop table conndemo;
select * from conndemo;
select * from A8_Con;
select * from V_A8_Con;
```

All Rows Fetched: 4 in 0.008 seconds

	NAME	ROLL	MARKS
1	lmn	2	21
2	tina	3	25
3	xyz	4	22
4	def	5	27

MongoDB - Java Connectivity Assignment B4

Required JDk, eclipse, MongoDB installed and .jar file

Step 1:

- Open Eclipse
- Create Java Project (File->New->Other->Java Proj->Next->provide Name of Proj->next->Finish)
- Create new class (src->right click->class->name->main method->default package)

Step 2

- For adding .jar file **mongo-java-driver-2.12.2.jar**
- right click on project->build path->configure build path->java build path->library->classpath->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( "localhost" , 27017 );
DB db = mongoClient.getDB( "ajk" );
System.out.println("Connect to database successfully");

DBCollection col1=db.createCollection("st2",new BasicDBObject());
System.out.println("collection created");

DBCollection col2=db.createCollection("fa2",new BasicDBObject());
System.out.println("collection created");

BasicDBObject doc1 = new BasicDBObject();
doc1.put("Rno", "1");
doc1.put("Name", "AJK");
doc1.put("Marks", "75");

BasicDBObject doc2 = new BasicDBObject();
doc2.put("Rno", "2");
doc2.put("Name", "QWE");
doc2.put("Marks", "80");

col1.insert(new BasicDBObject[] {doc1,doc2});
}
catch(Exception e)
{
System.err.println( e.getClass().getName() + ": " + e.getMessage() );
}
}
}
```

Output:

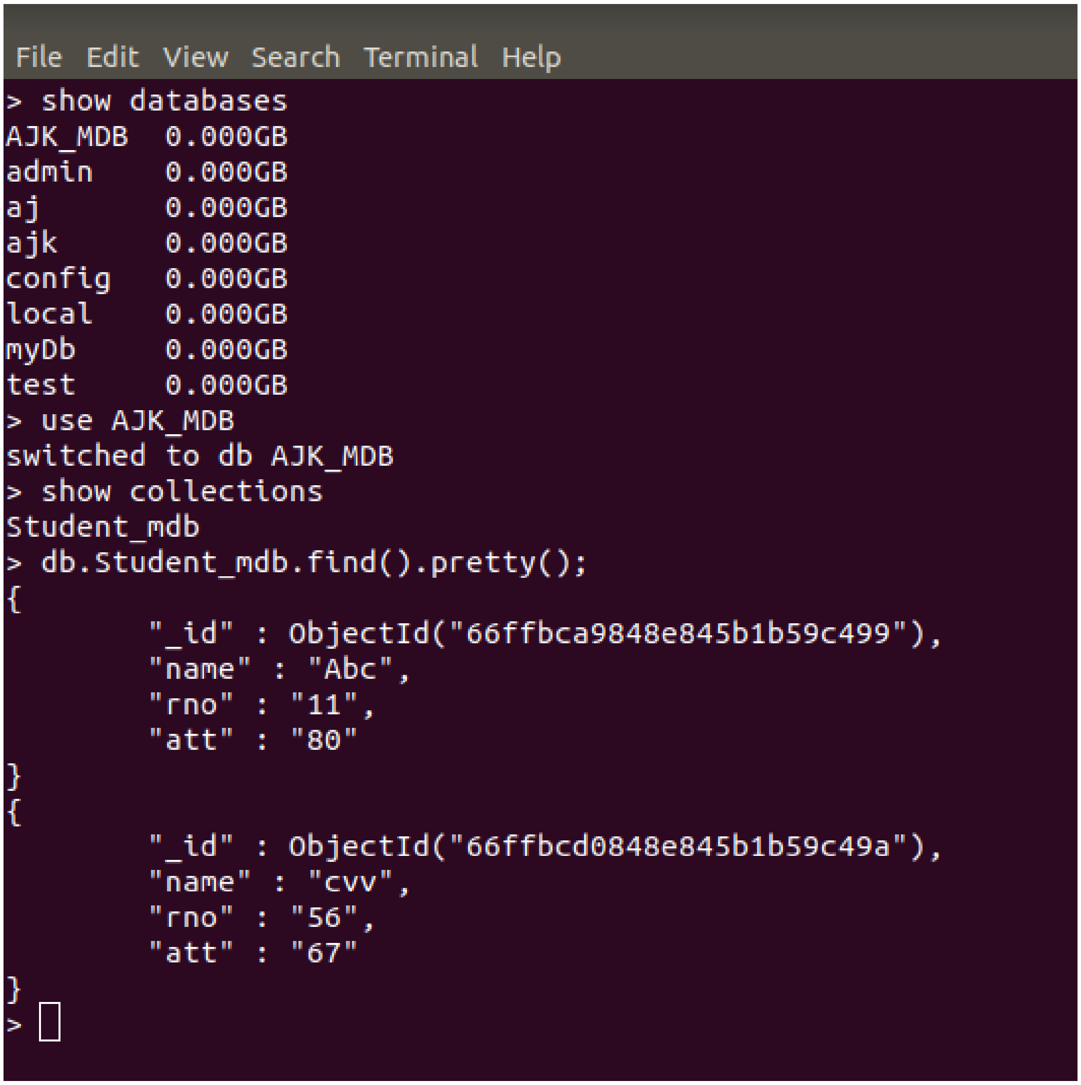
```
(base) dypiemr@dypiemr-OptiPlex-3020:~$ mongo
> show databases

admin   0.000GB
aj      0.000GB
ajk     0.000GB
config  0.000GB
local   0.000GB
myDb    0.000GB
test    0.000GB

> use ajk
switched to db ajk

> show collections
fa1
fa2
st1
st2

> db.st2.find().pretty();
{
	"_id" : ObjectId("66ff8855848e88f93789438f"),
	"Rno" : "1",
	"Name" : "AJK",
	"Marks" : "75"
}
{
	"_id" : ObjectId("66ff8855848e88f937894390"),
    "Rno" : "2",
    "Name" : "QWE",
    "Marks" : "80"
}
>
```

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("\n1.insert \n2.update \n3.delete \n4.show \n5.Exit");
    }
public static void main(String[] args)
{
    String key, value;
    Scanner scanner = new Scanner(System.in);
    int choice;
    try
    {
        Mongo mongo = new Mongo("localhost", 27017);
        DB db = mongo.getDB("AJK_MDB");
        DBCollection collection = db.getCollection("Student_mdb");
        do
        {
            choice_input();
            System.out.println("Enter your choice: ");
            choice = scanner.nextInt();
            switch (choice)
            {
                case 1:
                    BasicDBObject document = new BasicDBObject();
                    String ch;
                    do
                    {
                        System.out.println("Enter key: ");
                        key = scanner.next();
                        System.out.println("Enter value: ");
                        value = scanner.next();document.put(key, value);
                        System.out.println("Do you want to enter
more(y/n)? ");

                        ch = scanner.next();
                    }
                    while (!ch.equals("n"));
                    collection.insert(document);
                    break;
                case 2:
                    BasicDBObject searchObj = new BasicDBObject();
                    System.out.println("Enter searched key: ");
                    key = scanner.next();
                    System.out.println("Enter searched value: ");
                    value = scanner.next();
                    searchObj.put(key, value);
                    BasicDBObject newObj = new BasicDBObject();
                    System.out.println("Enter new key: ");
                    key = scanner.next();
                    System.out.println("Enter new value: ");
                    value = scanner.next();
                    newObj.put(key, value);
                    collection.update(searchObj, newObj);
                    break;
                case 3:
                    System.out.println("Enter removable key: ");
                    key = scanner.next();
                    System.out.println("Enter removable value: ");
                    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();
                }
        }
}
```

Output:



```
> show databases
AJK_MDB   0.000GB
admin     0.000GB
aj        0.000GB
ajk       0.000GB
config    0.000GB
local     0.000GB
myDb      0.000GB
test      0.000GB
> use AJK_MDB
switched to db AJK_MDB
> show collections
Student_mdb
> db.Student_mdb.find().pretty();
{
        "_id" : ObjectId("66ffbca9848e845b1b59c499"),
        "name" : "Abc",
        "rno" : "11",
        "att" : "80"
}
{
        "_id" : ObjectId("66ffbcd0848e845b1b59c49a"),
        "name" : "cvv",
        "rno" : "56",
        "att" : "67"
}
> 
```