**Establishing a connection to oracle database using type 4 driver**

* Create **CLASSPATH** for oracle driver (C:\oraclexe\app\oracle\product\10.2.0\server\jdbc\lib\ojdbc14.jar)

**Example**:

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

public class Program {

public static void main(String[] args) {

try{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

System.out.println("Connection Established Successfully");

con.close();

}catch(ClassNotFoundException ex){

System.out.println("Driver Class Not Found!");

}catch(SQLException ex){

System.out.println("Connection Failed");

}

}

}

**Example**:

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

public class Program {

public static void main(String[] args)throws ClassNotFoundException, SQLException{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

System.out.println("Connection Established Successfully");

con.close();

}

}

Executing a DDL Command

CREATE TABLE:

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

import java.sql.Statement;

public class Program {

public static void main(String[] args)throws ClassNotFoundException, SQLException{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

Statement st = con.createStatement();

String q = "create table students(rno number, name varchar2(30), course varchar2(20), fees number)";

st.execute(q);

System.out.println("Table Created Successfully");

con.close();

}

}

**Executing a DML Command:**

**Insert**:

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

import java.sql.Statement;

import java.util.Scanner;

public class Insert {

public static void main(String[] args)throws ClassNotFoundException, SQLException{

Scanner sc = new Scanner(System.in);

System.out.print("Enter Rno: ");

int rno = sc.nextInt();

sc.nextLine();

System.out.print("Enter Name: ");

String name = sc.nextLine();

System.out.print("Enter Course: ");

String course = sc.nextLine();

System.out.print("Enter Fees: ");

int fees = sc.nextInt();

String q = "insert into students values("+rno+",'"+name+"','"+course+"',"+fees+")";

//System.out.println(q);

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

Statement st = con.createStatement();

int count = st.executeUpdate(q);

System.out.println(count+" Row(s) Inserted");

con.close();

}

}

**Update**:

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.Statement;

import java.util.Scanner;

public class Update {

public static void main(String[] args)throws Exception{

Scanner sc = new Scanner(System.in);

System.out.print("Enter Rno: ");

int rno = sc.nextInt();

sc.nextLine();

System.out.print("Enter Name: ");

String name = sc.nextLine();

System.out.print("Enter Course: ");

String course = sc.nextLine();

System.out.print("Enter Fees: ");

int fees = sc.nextInt();

String q = "update students set name='"+name+"', course='"+course+"', fees="+fees+" where rno = "+rno;

//System.out.println(q);

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

Statement st = con.createStatement();

int count = st.executeUpdate(q);

System.out.println(count+" Row(s) Updated");

con.close();

}

}

**Delete**:

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

import java.sql.Statement;

import java.util.Scanner;

public class Insert {

public static void main(String[] args)throws ClassNotFoundException, SQLException{

Scanner sc = new Scanner(System.in);

System.out.print("Enter Rno: ");

int rno = sc.nextInt();

sc.nextLine();

System.out.print("Enter Name: ");

String name = sc.nextLine();

System.out.print("Enter Course: ");

String course = sc.nextLine();

System.out.print("Enter Fees: ");

int fees = sc.nextInt();

String q = "insert into students values("+rno+",'"+name+"','"+course+"',"+fees+")";

//System.out.println(q);

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

Statement st = con.createStatement();

int count = st.executeUpdate(q);

System.out.println(count+" Row(s) Inserted");

con.close();

}

}

**Select** :

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.sql.Statement;

public class Select {

public static void main(String[] args) throws Exception{

Class.forName("oracle.jdbc.driver.OracleDriver");

Connection con = DriverManager.getConnection("jdbc:oracle:thin:@localhost:1521:xe", "system", "manager");

Statement st = con.createStatement();

ResultSet rs = st.executeQuery("select \* from students");

System.out.println("RNO\tNAME\t\tCOURSE\tFEES");

System.out.println("-----------------------------------");

while(rs.next()){

//System.out.println(rs.getInt(1)+"\t"+rs.getString(2)+"\t"+rs.getString(3)+"\t"+rs.getInt(4));

System.out.println(rs.getInt("rno")+"\t"+rs.getString("name")+"\t"+rs.getString("course")+"\t"+rs.getInt("fees"));

}

con.close();

}

}

* Login App
  + Login table
    - Username
    - Password
* Get the name, course, fees by reading rno