**Establish Connection with Oracle Database using Type 4 Driver**

Jar file path:

“C:\oraclexe\app\oracle\product\10.2.0\server\jdbc\lib\ojdbc14.jar”

**Example 1**:

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

public class DBCon {

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 Not Found");

}catch(SQLException ex){

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

}

}

}

Example 2:

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

public class DBCon {

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();

}

}

**DDL Commands:**

**DDL (Data Definition Language)**

**CREATE TABLE:**

**Syntax:**

create table <table\_name>(<columnname1> <data\_type> <constaints>, <columnname2> <data\_type> <constaints>, ……);

Example:

create table student(rno number, name varchar2(30), course varchar2(20), fees int);

**DROP TABLE:**

**SYNTAX:**

DROP TABLE table\_name;

Example:

Drop table student;

**Exec DDL command using JAVA**

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

import java.sql.Statement;

public class DBCon {

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 student(rno number, name varchar2(30), course varchar2(20), fees int)";

st.execute(q);

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

con.close();

}

}

**Executing DML commands**

**INSERT INTO**

**Syntax:**

INSERT INTO table\_name(column1, column2,..) VALUES(value1, value2,…);

EX:

insert into student values(1, 'ravi', 'java', 5000);

**USING JAVA:**

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);

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

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

Statement st = con.createStatement();

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 student values("+rno+", '"+name+"', '"+course+"', "+fees+")";

int count = st.executeUpdate(q);

System.out.println(count+" row(s) inserted");

con.close();

}

}

**UPDATE:**

**SYNTAX:**

UPDATE table\_name SET column\_name1 = value1, column\_name2 = value2, … WHERE condition

**Example:**

update student set course='aws', fees=10000 where rno=6;

**Using JAVA:**

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);

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

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

Statement st = con.createStatement();

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 student set name='"+name+"', course='"+course+"', fees="+fees+" where rno="+rno;

int count = st.executeUpdate(q);

System.out.println(count+" row(s) updated");

con.close();

}

}

**DELETE:**

**SYNTAX**

DELETE FROM table\_name;

Or

DELETE FROM table\_name WHERE condition;

**Example:**

delete from student where course='java';

delete from student where rno=7;

**USING JAVA:**

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);

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

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

Statement st = con.createStatement();

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

int rno = sc.nextInt();

String q = "delete from student where rno="+rno;

int count = st.executeUpdate(q);

System.out.println(count+" row(s) deleted");

con.close();

}

}

**DQL COMMAND**

**SELECT**

**SYNTAX:**

SELECT column\_name1, column\_name2, …

FROM table\_name

WHERE condition;

**Example:**

Select \* from student;

select rno, name from student where course='java';

**USING JAVA:**

package p1;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

import java.sql.Statement;

import java.sql.ResultSet;

import java.util.Scanner;

public class Insert {

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

Scanner sc = new Scanner(System.in);

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

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

Statement st = con.createStatement();

String q = "select \* from student";

ResultSet rs = st.executeQuery(q);

System.out.println("RNO\tNAME\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));

}

rs.close();

con.close();

}

}