**SIMPLE STATEMENT**

import java.sql.\*;

import java.util.Scanner;

public class CRUDSS

{

static Connection con;

static int ch;

static String driverClassName = "com.mysql.jdbc.Driver";

static String url = "jdbc:mysql://localhost:3300/emp";

static String selectQ = "SELECT \* FROM emp";

static String eid,ename,esalary;

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

{

Scanner sc = new Scanner(System.in);

//load driver class

Class.forName(driverClassName);

//obtain a connection

con = DriverManager.getConnection(url,"root","7284559");

while(true)

{

System.out.println(" 1. create employee \n 2. update employee info \n 3. delete employee \n 0. Exit \n enter your choice: ");

ch = sc.nextInt();

switch (ch)

{

case 1:

createEmp();

break;

case 2:

updateEmp();

break;

case 3:

deleteEmp();

break;

case 0:

System.exit(0);

default:

System.out.println("Invalid choice! Please make a valid choice. \n\n");

}

}

}

private static void createEmp() throws SQLException, ClassNotFoundException

{

ResultSet rs;

String insertQ = "INSERT INTO emp VALUES ('e101','Minal','60000')";

//obtain a statement

Statement stcreate = con.createStatement();

rs = stcreate.executeQuery(selectQ);

System.out.println("Employee table before Insertion");

System.out.println("EmpId \t Empname \t EmpSalary");

while(rs.next())

{

eid = rs.getString(1);

ename = rs.getString(2);

esalary = rs.getString(3);

System.out.println(eid +"\t"+ ename+ "\t"+ esalary);

}

int exeUpdate = stcreate.executeUpdate(insertQ);

if(exeUpdate == 1)

{

System.out.println("1 row inserted");

}

rs = stcreate.executeQuery(selectQ);

System.out.println("Employee table after Insertion");

System.out.println("EmpId \t Empname \t EmpSalary");

while(rs.next())

{

eid = rs.getString(1);

ename = rs.getString(2);

esalary = rs.getString(3);

System.out.println(eid +"\t"+ ename+ "\t"+ esalary);

}

stcreate.close();

}

private static void updateEmp() throws SQLException, ClassNotFoundException

{

ResultSet rs;

String updateQ = "UPDATE emp SET salary= '70000' WHERE id = 'e101'";

//obtain a statement

Statement stupdate = con.createStatement();

rs = stupdate.executeQuery(selectQ);

System.out.println("Employee table before Updation");

System.out.println("EmpId \t Empname \t EmpSalary");

while(rs.next())

{

eid = rs.getString(1);

ename = rs.getString(2);

esalary = rs.getString(3);

System.out.println(eid +"\t"+ ename+ "\t"+ esalary);

}

int exeUpdate1 = stupdate.executeUpdate(updateQ);

if(exeUpdate1 == 1)

{

System.out.println("1 row updated");

}

rs = stupdate.executeQuery(selectQ);

System.out.println("Employee table after Updation");

System.out.println("EmpId \t Empname \t EmpSalary");

while(rs.next())

{

eid = rs.getString(1);

ename = rs.getString(2);

esalary = rs.getString(3);

System.out.println(eid +"\t"+ ename+ "\t"+ esalary);

}

stupdate.close();

}

private static void deleteEmp() throws SQLException, ClassNotFoundException

{

ResultSet rs;

String deleteQ = " DELETE FROM emp WHERE id = 'e101'";

//obtain a statement

Statement stdelete = con.createStatement();

rs = stdelete.executeQuery(selectQ);

System.out.println("Employee table before deletion");

System.out.println("EmpId \t Empname \t EmpSalary");

while(rs.next())

{

eid = rs.getString(1);

ename = rs.getString(2);

esalary = rs.getString(3);

System.out.println(eid +"\t"+ ename+ "\t"+ esalary);

}

int exeUpdate1 = stdelete.executeUpdate(deleteQ);

if(exeUpdate1 == 1)

{

System.out.println("Employee is deleted");

}

rs = stdelete.executeQuery(selectQ);

System.out.println("Employee table after deletion");

System.out.println("EmpId \t Empname \t EmpSalary");

while(rs.next())

{

eid = rs.getString(1);

ename = rs.getString(2);

esalary = rs.getString(3);

System.out.println(eid +"\t"+ ename+ "\t"+ esalary);

}

stdelete.close();

}

}

**OUTPUT:**

F:\jdbc\mysql>java CRUDSS

1. create employee

2. update employee info

3. delete employee

0. Exit

enter your choice:

1

Employee table before Insertion

EmpId Empname EmpSalary

2 dsd 90000

4 sdf 90000

1 row inserted

Employee table after Insertion

EmpId Empname EmpSalary

2 dsd 90000

4 sdf 90000

e101 Minal 60000

1. create employee

2. update employee info

3. delete employee

0. Exit

enter your choice:

2

Employee table before Updation

EmpId Empname EmpSalary

2 dsd 90000

4 sdf 90000

e101 Minal 60000

1 row updated

Employee table after Updation

EmpId Empname EmpSalary

2 dsd 90000

4 sdf 90000

e101 Minal 70000

1. create employee

2. update employee info

3. delete employee

0. Exit

enter your choice:

3

Employee table before deletion

EmpId Empname EmpSalary

2 dsd 90000

4 sdf 90000

e101 Minal 70000

Employee is deleted

Employee table after deletion

EmpId Empname EmpSalary

2 dsd 90000

4 sdf 90000

1. create employee

2. update employee info

3. delete employee

0. Exit

enter your choice:

0

**PREPAREDSTATEMENT**

import java.sql.\*;

import java.util.Scanner;

public class CRUDPS

{

static Connection con;

static int ch;

static String driverClassName = "com.mysql.cj.jdbc.Driver";

static String url = "jdbc:mysql://localhost:3300/emp";

static String selectQ = "SELECT \* FROM emp";

static String id,name,sal;

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

{

CRUDPS crudps= new CRUDPS();//obj of class

Scanner sc = new Scanner(System.in);

//load driver class

Class.forName(driverClassName);

//obtain a connection

con = DriverManager.getConnection(url,"root","7284559");

while(true)

{

System.out.println("1. print employee table \n 2. create employee \n 3. update employee info \n 4. delete employee \n 0. Exit \n enter your choice: ");

ch = sc.nextInt();

switch (ch)

{

case 1:

crudps.printEmp();

break;

case 2:

System.out.println("Enter Emp Id: ");

id = sc.next();

System.out.println("\nEnter Name");

name = sc.next();

System.out.println("\nEnter Salary");

sal= sc.next();

crudps.createEmp(id, name, sal);

crudps.printEmp();

break;

case 3:

System.out.println("Enter Emp Id: ");

id = sc.next();

System.out.println("\nEnter Name");

name = sc.next();

crudps.updateEmp(id, name);

crudps.printEmp();

break;

case 4:

System.out.println("Enter Emp Id: ");

id = sc.next();

crudps.deleteEmp(id);

crudps.printEmp();

break;

case 0:

System.exit(0);

default:

System.out.println("Invalid choice! Please make a valid choice. \n\n");

}

}

}

void printEmp() throws SQLException, ClassNotFoundException

{

PreparedStatement printps;

ResultSet rs;

String printQ = "select \* from emp";

printps=con.prepareStatement(printQ);

rs = printps.executeQuery();

System.out.println("\n\nPrinting Table : \n");

System.out.println("empID \t empNAME \t empSALARY");

while(rs.next())

{

id=rs.getString(1);

name=rs.getString(2);

sal=rs.getString(3);

System.out.println(id +"\t"+ name+ "\t"+ sal);

}

printps.close();

}

void createEmp(String id, String name,String sal) throws SQLException, ClassNotFoundException

{

PreparedStatement createps;

ResultSet rs;

String createQ = "insert into emp values(?,?,?)";

createps=con.prepareStatement(createQ);

createps.setString(1,id);

createps.setString(2,name);

createps.setString(3,sal);

int i=createps.executeUpdate();

System.out.println(i+" records inserted");

createps.close();

}

void updateEmp(String id, String name) throws SQLException, ClassNotFoundException

{

PreparedStatement updateps;

ResultSet rs;

String updateQ = "update emp set name = ? where id = ? ";

updateps=con.prepareStatement(updateQ);

updateps.setString(1,name);

updateps.setString(2,id);

int i=updateps.executeUpdate();

System.out.println(i+" records updated");

updateps.close();

}

private static void deleteEmp(String id) throws SQLException, ClassNotFoundException

{

PreparedStatement deleteps;

ResultSet rs;

String deleteQ = "delete from emp where id=?";

deleteps=con.prepareStatement(deleteQ);

deleteps.setString(1,id);

int i=deleteps.executeUpdate();

System.out.println(i+" records deleted");

deleteps.close();

}

}

**OUTPUT**

F:\jdbc\mysql>javac CRUDPS.java

F:\jdbc\mysql>java CRUDPS

1. print employee table

2. create employee

3. update employee info

4. delete employee

0. Exit

enter your choice:

1

Printing Table :

empID empNAME empSALARY

2 dd 90000

4 sdf 90000

1. print employee table

2. create employee

3. update employee info

4. delete employee

0. Exit

enter your choice:

2

Enter Emp Id:

333

Enter Name

fe

Enter Salary

324

1 records inserted

Printing Table :

empID empNAME empSALARY

2 dd 90000

333 fe 324

4 sdf 90000

1. print employee table

2. create employee

3. update employee info

4. delete employee

0. Exit

enter your choice:

3

Enter Emp Id:

2

Enter Name

dsd

1 records updated

Printing Table :

empID empNAME empSALARY

2 dsd 90000

333 fe 324

4 sdf 90000

1. print employee table

2. create employee

3. update employee info

4. delete employee

0. Exit

enter your choice:

4

Enter Emp Id:

333

1 records deleted

Printing Table :

empID empNAME empSALARY

2 dsd 90000

4 sdf 90000

1. print employee table

2. create employee

3. update employee info

4. delete employee

0. Exit

enter your choice:

0

**COLLABLE STATEMENT**

import java.sql.\*;

import java.util.Scanner;

public class CollablePro

{

static Connection con;

static ResultSet rs;

static String id,name,salary;

static String query1 ="{call EMPprocedure()}";

static String query2 = "{call empinsert(?,?,?)}";

static String query3 = "{call empupdate(?,?)}";

static String query4 = "{call empdelete(?)}";

static String query5 = "{call emppOUT(?)}";

static String query6 = "{call emppINOUT(?,?)}";

public static void main(String agrs[]) throws Exception

{

Scanner sc = new Scanner(System.in);

Class.forName("com.mysql.cj.jdbc.Driver");

con = DriverManager.getConnection("jdbc:mysql://localhost:3300/emp", "root", "7284559");

System.out.println("1.select\n2.insert\n3.update\n4.delete\n5.OUT Procedure\n6.INOUT Procedure\nEnter your choice: ");

int ch = sc.nextInt();

switch(ch){

case 1:

//select procedure

CallableStatement csst = con.prepareCall(query1);

System.out.println("Employee table");

csst.execute();

rs = csst.getResultSet();

System.out.println("ID\tNAME\tSALARY");

while (rs.next()) {

String id = rs.getString(1);

String name = rs.getString(2);

String salary = rs.getString(3);

System.out.println(id + "\t" + name + "\t" + salary);

}

System.out.println("\n");

break;

case 2:

//insert procedure

csst = con.prepareCall(query2);

System.out.println("Enter Employee id");

id = sc.next();

csst.setString(1,id);

System.out.println("Enter Employee name");

name = sc.next();

csst.setString(2,name);

System.out.println("Enter Employee salary");

salary = sc.next();

csst.setString(3,salary);

csst.execute();

System.out.println("\n");

break;

case 3:

//update procedure

csst = con.prepareCall(query3);

System.out.println("Enter Employee id");

id = sc.next();

csst.setString(1,id);

System.out.println("Enter Employee salary");

salary = sc.next();

csst.setString(2,salary);

csst.execute();

break;

case 4:

//delete procedure

csst = con.prepareCall(query4);

System.out.println("Enter Employee id");

id = sc.next();

csst.setString(1,id);

csst.execute();

break;

case 5:

//out procedure

csst = con.prepareCall(query5);

csst.registerOutParameter(1,Types.INTEGER);

System.out.println("Executing Out procedure");

csst.execute();

System.out.println("Total count of employess in company whos SALARY > 80000 : " + csst.getInt(1));

System.out.println("\n");

break;

case 6:

//INOUT procedure

csst = con.prepareCall(query6);

System.out.println("Enter Employee salary");

salary = sc.next();

csst.setString(2,salary);

csst.registerOutParameter(1,Types.INTEGER);

System.out.println("Executing INOUT procedure");

csst.execute();

System.out.println("Count of Employee "+csst.getInt(1)+" whos salary is greater than: " + salary);

System.out.println("\n");

break;

default:

System.out.println("Enter valid option");

}

}

}

**OUTPUT:**

F:\jdbc\mysql>java CollablePro

1.select

2.insert

3.update

4.delete

5.OUT Procedure

6.INOUT Procedure

Enter your choice:

2

Enter Employee id

4

Enter Employee name

sdf

Enter Employee salary

600000

F:\jdbc\mysql>java CollablePro

1.select

2.insert

3.update

4.delete

5.OUT Procedure

6.INOUT Procedure

Enter your choice:

1

Employee table

ID NAME SALARY

4 sdf 600000

F:\jdbc\mysql>java CollablePro

1.select

2.insert

3.update

4.delete

5.OUT Procedure

6.INOUT Procedure

Enter your choice:

3

Enter Employee id

4

Enter Employee salary

90000

F:\jdbc\mysql>java CollablePro

1.select

2.insert

3.update

4.delete

5.OUT Procedure

6.INOUT Procedure

Enter your choice:

5

Executing Out procedure

Total count of employess in company whos SALARY > 80000 : 2

F:\jdbc\mysql>java CollablePro

1.select

2.insert

3.update

4.delete

5.OUT Procedure

6.INOUT Procedure

Enter your choice:

6

Enter Employee salary

80000

Executing INOUT procedure

Id of Employee 2 whos salary is greater than: 80000

F:\jdbc\mysql>java CollablePro

1.select

2.insert

3.update

4.delete

5.OUT Procedure

6.INOUT Procedure

Enter your choice:

1

Employee table

ID NAME SALARY

2 dd 90000

4 sdf 90000