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","7284
559");

    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","7284
559");

        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(create
Q);
                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(upda
teQ);
                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(delete
Q);
                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.jd
bc.Driver");
        con =
DriverManager.getConnection("jdbc:my
sql://localhost:3300/emp", "root",
"7284559");

        System.out.println("1.select\n2.i
nsert\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\t
SALARY");
        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
```