**The contact list using JDBC**

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**Connection class:**

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**package** com.company;  
  
**import** java.sql.\*;  
**import** java.util.Scanner;  
  
**public class** Connections {  
 *//to read value from console* **public static** Scanner *scanner* = **new** Scanner(System.***in***);  
  
 Connection **con** = **null**;  
 Statement **statement** = **null**;  
 PreparedStatement **preparedStatement** = **null**;  
 ResultSet **resultSet** = **null**;  
 String **setnamePh** = **"insert into Phone values(?,?)"**;  
  
 *//takes the name* **public void** setNamePhone(){  
 **try** {  
 System.***out***.println(**"Name:"**);  
 String nm = grantValues();  
 System.***out***.println(**"Phone Number"**);  
 String ph = grantValues();  
 **if** (checkSimilarity(nm, ph)) {  
 Methods methods = **new** Methods();  
 **con** = methods.getCon();  
 **preparedStatement** = **con**.prepareStatement(**setnamePh**);  
 **preparedStatement**.setString(1, nm);  
 **preparedStatement**.setString(2, ph);  
 **preparedStatement**.executeUpdate();  
 **con**.commit();  
 } **else** {  
 System.***out***.println(**"Contact already exists"**);  
 }  
 } **catch** (SQLException s){  
 s.printStackTrace();  
 }  
  
 }  
  
 *//updates an existing number* **public void** updatePHONE(){  
 **try** {  
 System.***out***.println(**"enter name to update"**);  
 String s = *scanner*.nextLine();  
 **if** (checkSimilarity(s)) {  
 System.***out***.println(**"enter new number"**);  
 String pho = *scanner*.nextLine();  
 Methods m = **new** Methods();  
 **con** = m.getCon();  
 String updt = **"update Phone set PHONE\_NO = ? where NAME = '"** + s + **"'"**;  
 **preparedStatement** = **con**.prepareStatement(updt);  
 **preparedStatement**.setString(1, pho);  
 **preparedStatement**.executeUpdate();  
 **con**.commit();  
 } **else** {  
 System.***out***.println(**"Number doesn't exists"**);  
 }  
 } **catch** (Exception e){  
 e.printStackTrace();  
 }  
 }  
  
 *//delets a number* **public void** delete(){  
 **try** {  
 System.***out***.println(**"enter the Contact name:"**);  
 String nm = *scanner*.nextLine();  
 **if** (checkSimilarity(nm)) {  
 String del = **"delete from Phone where NAME = ?"**;  
 Methods m = **new** Methods();  
 **con** = m.getCon();  
 **preparedStatement** = **con**.prepareStatement(del);  
 **preparedStatement**.setString(1, nm);  
 **preparedStatement**.executeUpdate();  
 **con**.commit();  
 }  
 } **catch** (Exception e){  
 e.printStackTrace();  
 }  
 }  
  
 *//search contact by name* **public void** search(){  
 System.***out***.println(**"enter initials"**);  
 String d = *scanner*.nextLine();  
 **try** {  
 Methods m = **new** Methods();  
 String sql = **"select** *\** **from Phone where NAME like'"** + d + **"%'"**;  
 **con** = m.getCon();  
 **statement**=**con**.createStatement();  
 **resultSet**=**statement**.executeQuery(sql);  
 **while**(**resultSet**.next())  
 {  
 System.***out***.println(**"Name : "** + **resultSet**.getString(1) + **" Phone number : "** + **resultSet**.getString(2));  
 }  
  
 } **catch** (Exception e){  
 e.printStackTrace();  
 }  
 }  
  
 *//show full list* **public void** show(){  
 **try** {  
 String select\_sql = **"select** *\** **from Phone"**;  
 Methods m=**new** Methods();  
 **con** = m.getCon();  
 **statement** = **con**.createStatement();  
 **resultSet** = **statement**.executeQuery(select\_sql);  
 **while**(**resultSet**.next())  
 {  
 System.***out***.println(**" Name : "** + **resultSet**.getString(1) + **"\n Phone : "** + **resultSet**.getString(2));  
 }  
  
 } **catch**(SQLException se) {  
 se.printStackTrace();  
 }  
 }  
  
 *//checks similarity* **public boolean** checkSimilarity(String n, String p){  
 ResultSet resultSet1, resultSet2;  
 **boolean** i = **true**;  
 **try** {  
 Methods m = **new** Methods();  
 **con** = m.getCon();  
 String checkname = n;  
 String checkphone = p;  
  
 String query = **"select NAME from Phone where NAME = '"** + checkname + **"'"**;  
 String query2 = **"select PHONE\_NO from Phone where PHONE\_NO = '"** + checkphone + **"'"**;  
  
 **statement** = **con**.createStatement();  
 Statement statement1 = **con**.createStatement();  
 resultSet1 = **statement**.executeQuery(query);  
 resultSet2 = statement1.executeQuery(query2);  
  
 **if** (resultSet1.next() && resultSet2.next()){  
 i = **false**;  
 } **else** {  
 i = **true**;  
 }  
  
 } **catch** (Exception e) {  
 e.printStackTrace();  
 } **finally** {  
  
 }  
 **return** i;  
 }  
  
 **public boolean** checkSimilarity(String n){  
 ResultSet resultSet1;  
 **boolean** i = **true**;  
 **try** {  
 Methods m = **new** Methods();  
 **con** = m.getCon();  
 String checkname = n;  
  
 String query = **"select NAME from Phone where NAME = '"** + checkname + **"'"**;  
  
 **statement** = **con**.createStatement();  
 resultSet1 = **statement**.executeQuery(query);  
  
 **if** (resultSet1.next()){  
 i = **true**;  
 } **else** {  
 i = **false**;  
 }  
  
 } **catch** (Exception e) {  
 e.printStackTrace();  
 } **finally** {  
  
 }  
 **return** i;  
 }  
  
 **public** String grantValues(){  
 String x = *scanner*.nextLine();  
 **return** x;  
 }  
  
 **public void** popUps(){  
 System.***out***.println(**"1. Create Contact"**);  
 System.***out***.println(**"2. Update Phone number"**);  
 System.***out***.println(**"3. Delete Contact"**);  
 System.***out***.println(**"4. Search Contact"**);  
 System.***out***.println(**"5. Show All Contacts"**);  
 System.***out***.println(**"6. Exit"**);  
 }  
}

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**Method class:**

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**package** com.company;  
  
**import** java.sql.Connection;  
**import** java.sql.DriverManager;  
**import** java.sql.SQLException;  
  
**public class** Methods {  
 Connection **con**;  
  
 **public** Connection getCon() {  
 **try**{  
 Class.*forName*(**"oracle.jdbc.driver.OracleDriver"**);  
 **con** = DriverManager.*getConnection*(**"jdbc:oracle:thin:@localhost:1521:ORCL"**,**"scott"**,**"tiger"**);  
 } **catch** (ClassNotFoundException e){  
 e.printStackTrace();  
 } **catch** (SQLException s){  
 s.printStackTrace();  
 }  
  
 **return con**;  
 }  
}

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**Method class:**

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**package** com.company;  
**import** java.sql.\*;  
**import** java.util.Scanner;  
  
**public class** Main {  
 **public static** Scanner *scanner* = **new** Scanner(System.***in***);  
  
 **public static void** main(String[] args) {  
 **try** {  
 Connections connections = **new** Connections();  
 System.***out***.println(**"welcome to contact"**);  
 Thread.*sleep*(20);  
 System.***out***.println(**"enter your choice : "**);  
 connections.popUps();  
 System.***out***.println(**"Enter your choice"**);  
 String i = *scanner*.nextLine();  
 **int** j = Integer.*parseInt*(i); *//Wrapper class* **do** {  
 **switch** (j) {  
 **case** 1:  
 connections.setNamePhone();  
 connections.popUps();  
 System.***out***.println(**"enter next choice : "**);  
 j = Integer.*parseInt*(*scanner*.nextLine());  
 **break**;  
 **case** 2:  
 connections.updatePHONE();  
 connections.popUps();  
 System.***out***.println(**"enter next choice : "**);  
 j = Integer.*parseInt*(*scanner*.nextLine());  
 **break**;  
 **case** 3:  
 connections.delete();  
 connections.popUps();  
 System.***out***.println(**"enter next choice : "**);  
 j = Integer.*parseInt*(*scanner*.nextLine());  
 **break**;  
 **case** 4:  
 connections.search();  
 connections.popUps();  
 System.***out***.println(**"enter next choice : "**);  
 j = Integer.*parseInt*(*scanner*.nextLine());  
 **break**;  
 **case** 5:  
 connections.show();  
 connections.popUps();  
 System.***out***.println(**"enter next choice : "**);  
 j = Integer.*parseInt*(*scanner*.nextLine());  
 **break**;  
 **default**:  
 **break**;  
 }  
 } **while** (j >= 1 & j < 6);  
 } **catch** (Exception e){  
 e.printStackTrace();  
 }  
 }  
}