```java
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Properties;

public class Create {
    public static void main(String args[]){
        Properties p = new Properties();
        try {
            p.load(new FileInputStream("config.prop"));
        } catch (FileNotFoundException e1) {
            // TODO Auto-generated catch block
            e1.printStackTrace();
        } catch (IOException e1) {
            // TODO Auto-generated catch block
            e1.printStackTrace();
        }

        try {
            // enregistrement du driver
            // Class.forName("org.postgresql.Driver");
            Class.forName(p.getProperty("driver"));
        }
        catch( ClassNotFoundException e){
            System.err.println("Driver not found");
            System.exit(1);
        }

        // connexion à la base
        String url = p.getProperty("url");
        String nom = p.getProperty("login");
        String mdp = p.getProperty("password");
        try(Connection con = DriverManager.getConnection(url,nom, mdp)){
            // exécution de la requete
            Statement stmt = con.createStatement();
            stmt.executeUpdate("drop table if exists CLIENTS;");
            stmt.executeUpdate("create table CLIENTS ("
                               + "NOM varchar(25),"
                               + "PRENOM varchar(25),"
                               + "AGE int)");
            con.close();
        } catch (SQLException e) {
            System.err.println(e.getMessage());
            System.exit(2);
        }
        System.out.println("All is ok !");

    }
}
```

```java
import java.io.File;
import java.sql.Connection;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Scanner;

public class ImportAbo {
    public static void main(String[] args) {

        Connection con = SQLUtils.getConnection();

        File f = new File(args[0]);
        try (Scanner sc = new Scanner(f)){
            sc.useDelimiter(";|\n");
            while (sc.hasNext()){
                addData(con, "abonne", "(prenom, nom, ddn, adresse, ddf)", "'" + sc.next() +"','"+sc.next()-
+"','" + sc.next()+"','"+sc.next()+"','" +sc.next()+"'");
            }

        } catch (Exception e) {
            System.err.println(e.getMessage());
        }
    }

    static void addData(Connection con, String table, String columns, String values) throws SQLException{
        Statement stmt = con.createStatement();
        stmt.executeUpdate("Insert into " + table + columns + " values(" + values +");");
    }
}
```

```java
import java.sql.Connection;
import java.sql.SQLException;
import java.sql.Statement;

public class Insert {
    public static void main(String args[]){
        try(Connection con = SQLUtils.getConnection()){
            // exécution de la requete
            Statement stmt = con.createStatement();
            String values = "";
            for (int i = 1; i <= 1000; i++) {
                values += "("
                    + "'nom" + i + "'"
                    + ", 'prenom" + i + "'"
                    + ", " + i
                    + "), ";
            }
            values = values.substring(0, values.length()-2);
            stmt.executeUpdate(
                "INSERT INTO CLIENTS( NOM, PRENOM, AGE) "
                + "values" + values + ";");
            con.close();
        } catch (SQLException e) {
            System.err.println(e.getMessage());
            System.exit(2);
        }
        System.out.println("All is ok !");

    }
}
```

```java
import java.security.InvalidParameterException;
import java.sql.Connection;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

public class Lister {
    public static void main(String[] args) {
    if (args.length != 1) {
        throw new InvalidParameterException("Veuillez passer un nom de table en paramètre !");
    }
    try (Connection con = SQLUtils.getConnection()){

        // preparation de la requete
        String query = "Select * from " + args[0];
        Statement stmt = con.createStatement();
        ResultSet rs = stmt.executeQuery(query);
        SQLUtils.printResultSet(rs);
    }catch (SQLException e) {
        System.err.println(e.getMessage());
        System.exit(1);
    }
    }
}
```

```java
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.SQLException;

public class Speed2 {
    public static void main(String args[]){
        long t1 = System.currentTimeMillis();
        try(Connection con = SQLUtils.getConnection()){
            // exécution de la requete
            String query = "INSERT INTO CLIENTS( NOM, PRENOM, AGE) values(?,?,?)";
            PreparedStatement ps = con.prepareStatement(query);
            for (int i = 0; i < 10000; i++) {
                ps.setString(1, "nom"+i);
                ps.setString(2, "prenom"+i);
                ps.setInt(3, i);
                ps.executeUpdate();
            }
        } catch (SQLException e) {
            System.err.println(e.getMessage());
            System.exit(2);
        }
        System.out.println("All is ok !");
        System.out.println(System.currentTimeMillis()-t1);
    }
}
```

```java
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.Scanner;

public class Rechercher {
    public static void main(String[] args){
        try (Connection con = SQLUtils.getConnection()){
            Scanner sc = new Scanner(System.in);
            // preparation de la requete
            String query = "Select * from clients where nom = ?";
            PreparedStatement ps = con.prepareStatement(query);
            ps.setString(1, sc.next());
            System.out.println(ps);
            ResultSet rs = ps.executeQuery();
            SQLUtils.printResultSet(rs);
            sc.close();
        }catch (SQLException e) {
            System.err.println(e.getMessage());
            System.exit(1);
        }

    }
}
```

```java
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;

public class Select {
    public static void main(String args[]){
        try {
            // enregistrement du driver
            Class.forName("org.postgresql.Driver");
        }
        catch( ClassNotFoundException e){
            System.err.println("Driver not found");
            System.exit(1);
        }

        // connexion à la base
        String url = "jdbc:postgresql://psqlserv/but2";
        String nom = "alexandreherssensetu";
        String mdp = "moi";
        try(Connection con = DriverManager.getConnection(url,nom, mdp)){
            // exécution de la requete
            Statement stmt = con.createStatement();
            ResultSet rs = stmt.executeQuery("SELECT * FROM CLIENTS;");
            while(rs.next()) System.out.println(rs.getString("Age"));
            con.close();
        } catch (SQLException e) {
            System.err.println(e.getMessage());
            System.exit(2);
        }
        System.out.println("All is ok !");

    }
}
```

```java
import java.sql.Connection;
import java.sql.SQLException;
import java.sql.Statement;

public class Speed3 {
    public static void main(String args[]){
        long t1 = System.currentTimeMillis();
        try(Connection con = SQLUtils.getConnection()){
            Statement stmt = con.createStatement();
            for (int i = 0; i < 10000; i++) {
                stmt.addBatch("INSERT INTO CLIENTS( NOM, PRENOM, AGE) values('nom" + i + "','prenom" + i +"',
" + i +")");
            }
            stmt.executeBatch();
        } catch (SQLException e) {
            System.err.println(e.getMessage());
            System.exit(2);
        }
        System.out.println("All is ok !");
        System.out.println(System.currentTimeMillis()-t1);
    }
}
```

```java
import java.sql.Connection;
import java.sql.PreparedStatement;
import java.sql.SQLException;

public class Speed4 {
    public static void main(String args[]){
        long t1 = System.currentTimeMillis();
        try(Connection con = SQLUtils.getConnection()){
            PreparedStatement ps = con.prepareStatement("INSERT INTO CLIENTS( NOM, PRENOM, AGE)
values(?,?,?)");
            for (int i = 0; i < 10000; i++) {
                ps.setString(1, "nom"+i);
                ps.setString(2, "prenom"+i);
                ps.setInt(3, i);
                ps.addBatch();
            }
            ps.executeBatch();
        } catch (SQLException e) {
            System.err.println(e.getMessage());
            System.exit(2);
        }
        System.out.println("All is ok !");
        System.out.println(System.currentTimeMillis()-t1);
    }
}
```

```java
import java.io.FileInputStream;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Properties;

public class SQLUtils {
    private static final String CONFIG_PATH = "./config.prop";

    public static Connection getConnection(){return getConnection(CONFIG_PATH);}

    public static Connection getConnection(String configPath){
        Properties p = new Properties();
        try {
            p.load(new FileInputStream(configPath));
        } catch (Exception e) {
            System.err.println(e.getMessage());
            System.exit(1);
        }

        String driver = p.getProperty("driver");
        String url = p.getProperty("url");
        String nom = p.getProperty("login");
        String mdp = p.getProperty("password");

        try {
            // enregistrement du driver
            Class.forName(driver);
        }
        catch( ClassNotFoundException e){
            System.err.println("Driver not found");
            System.exit(1);
        }

        try{
            Connection con = DriverManager.getConnection(url,nom, mdp);
            return con;
        } catch (SQLException e) {
            System.err.println(e.getMessage());
            System.exit(2);
        }
        return null;

    }


    public static void printResultSet(ResultSet rs) throws SQLException{
        ResultSetMetaData rsmd = rs.getMetaData();
        int columnsNumber   = rsmd.getColumnCount();


        String str;
        while (rs.next()) {
            str = rsmd.getColumnName(1) +"\t: " + rs.getString(1);
            for (int i = 2; i <= columnsNumber; i++) {
                str += "\n" + rsmd.getColumnName(i) +"\t: " + rs.getString(i);
            }
            System.out.println(str+'\n');
        }
    }

    public static void createTable(Connection con, String tableName, String... args) throws SQLException{

            Statement stmt = con.createStatement();
            stmt.executeUpdate("drop table if exists " + tableName);
            String champs = "";
            if (args.length % 2 != 0) throw new SQLException("Mauvais nombre d'arguments");
            for (int i = 0; i < args.length; i = i + 2) {
                champs += args[i] + " " + args[i+1] + ",";
```

```
            }
            champs = champs.substring(0, champs.length()-1);
            String st = "create table "+ tableName +" (" + champs +");";
            stmt.executeUpdate(st);


    }

    public static void main(String[] args) throws SQLException {
        Connection con = getConnection();
        createTable(con, "compte", "pers", "text", "solde", "int");
    }


}
```

```java
import java.sql.Connection;
import java.sql.Statement;

public class TestBdd {
    public static void main(String args[]) throws Exception
    {
        Connection con = SQLUtils.getConnection();
        Statement stmt = con.createStatement();
        stmt.executeUpdate("delete from CLIENTS");
        con.close();
    }
}
```

```java
import java.sql.Connection;
import java.sql.SQLException;
import java.sql.Statement;

public class Transac1 {
    public static void main(String args[]){
        Connection con = null;
        try{
            con = SQLUtils.getConnection();
            con.setAutoCommit(false);
            Statement stmt  = con.createStatement();
            stmt.executeUpdate("truncate table client;");


            // PreparedStatement ps = con.prepareStatement("INSERT INTO CLIENT( NOM, PRENOM, AGE)
values(?,?,?)");
            for (int i = 1; i <= 1000; i++) {
                stmt.executeUpdate(
                    "INSERT INTO CLIENT(cno, NOM, PRENOM, AGE) "
                    + "values(" + i
                    + ",'nom" + i + "'"
                    + ", 'prenom" + i + "'"
                    + ", " + i
                    + ")");
            }
            for (int i = 3000; i <= 4000; i++) {
                stmt.executeUpdate(
                    "INSERT INTO CLIENT(cno, NOM, PRENOM, AGE) "
                    + "values(" + i
                    + ",'nom" + i + "'"
                    + ", 'prenom" + i + "'"
                    + ", " + i
                    + ")");
            }
            con.commit();
            // ps.executeBatch();
        } catch (SQLException e) {
            try {
                con.rollback();
            } catch (SQLException e1) {
                System.err.println("rollback failed c la merde");
                e1.printStackTrace();
            }
            System.err.println(e.getMessage());
            System.exit(2);
        }

    }
}
```

```java
import java.sql.Connection;
import java.sql.ResultSet;
import java.sql.Statement;

public class Transc2 {
    public static void main(String[] args) {
        if (args.length != 2) throw new IllegalArgumentException();
        String pers = args[0];
        String prod = args[1];
        Connection con = null;

        try {
            con = SQLUtils.getConnection();
            Statement st = con.createStatement();
            con.setAutoCommit(false);
            con.setTransactionIsolation(Connection.TRANSACTION_REPEATABLE_READ);
            String r1 = "select qute from produit where prod='" + prod + "'";
            ResultSet rs = st.executeQuery(r1);
            rs.next();
            if (rs.getInt("qute") > 0) {
                String r3 = "update compte set solde=solde+100 where pers='" + pers + "'";
                st.executeUpdate(r3);
                Thread.sleep(10000);
                String r2 = "update produit set qute=qute-1 where prod='" + prod + "'";
                st.executeUpdate(r2);
                System.out.println("Achat effectué");
            } else {
            System.out.println("Achat impossible");
            }
            con.commit();

        } catch (Exception e) {
            System.err.println(e.getMessage());
            try {
                con.rollback();
            } catch (Exception e1) {
                // TODO: handle exception
            }
            // TODO: handle exception
        }

    }
}
```

```java
package tp4;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.util.Properties;

public class DS {

    Properties p = new Properties();

    public DS (String name) {
        try {
            p.load(new FileInputStream(name));
        } catch (FileNotFoundException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        } catch (IOException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }
    }


    public Connection getConnexion() {
        Connection con = null;
        try {
            con =
DriverManager.getConnection(p.getProperty("url"),p.getProperty("login"),p.getProperty("password"));
        } catch (SQLException e) {
            // TODO Auto-generated catch block
            e.printStackTrace();
        }
        return con;
    }
}
```