LISTAR OS CONTATOS NO BANCO DE DADOS

Local instance MySQL80 ✕

File   Edit   View   Query   Database   Server   Tools   Scripting   Help

agenda* ✕

Limit to 1000 rows

```sql
 6          nome varchar(50) not null,
 7          fone varchar(15) not null,
 8          email varchar(50)
 9     );
10     show tables;
11     describe contatos;
12     /* CRUD CREATE */
13     insert into contatos (nome,fone,email) values ('Bill Gate
14     /* CRUD READ   */
15     select * from contatos;
```

Navigator

SCHEMAS

Filter objects

▼ 🛢 **dbagenda**
  ▼ 🗀 Tables
    ▶ 🖽 contatos
    🖽 Views
    🖽 Stored Procedures
    🖽 Functions
▶ 🛢 sakila
▶ 🛢 sys
▶ 🛢 world

Administration   Schemas

Information

No object selected

Result Grid | Filter Rows: | Edit: Export/Impo

idcon	nome	fone	email
1	Bill Gates	99999-1111	Gates@outlook.com
2	Cris Oliveira	99999-2222	cris@gmail.com
NULL	NULL	NULL	NULL

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

agenda*

SCHEMAS

Filter objects

▼ dbagenda
  ▼ Tables
    ▶ contatos
    Views
    Stored Procedures
    Functions
▶ sakila
▶ sys
▶ world

Administration Schemas
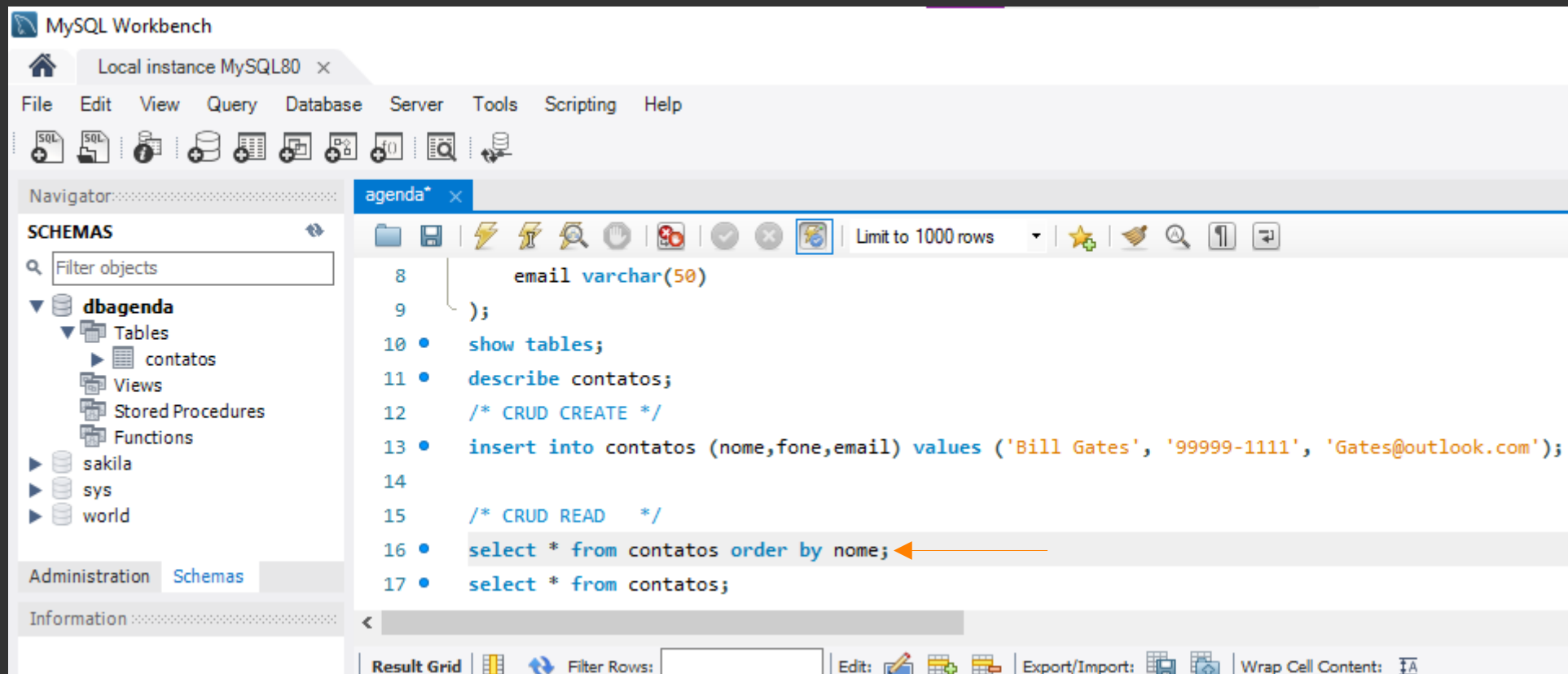
Information

```sql
 8              email varchar(50)
 9       );
10       show tables;
11       describe contatos;
12       /* CRUD CREATE */
13       insert into contatos (nome,fone,email) values ('Bill Gates', '99999-1111', 'Gates@outlook.com');
14
15       /* CRUD READ   */
16       select * from contatos order by nome;
17       select * from contatos;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

Ctrl + enter

Local instance MySQL80 ×

File   Edit   View   Query   Database   Server   Tools   Scripting   Help

agenda* ×
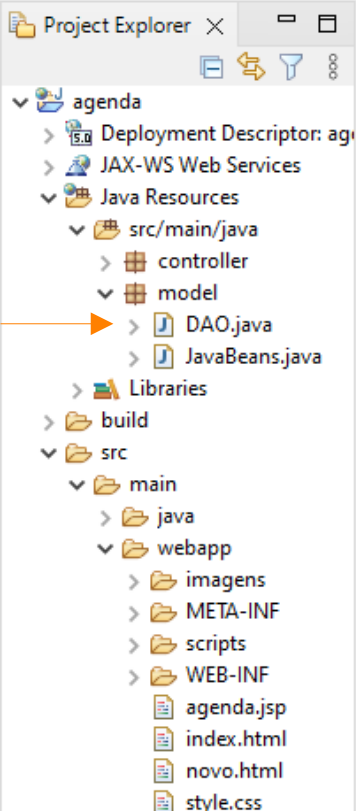
Limit to 1000 rows

```
 7              fone varchar(15) not null,
 8              email varchar(50)
 9        );
10    •   show tables;
11    •   describe contatos;
12        /* CRUD CREATE */
13    •   insert into contatos (nome,fone,email) values ('Bill Gates', '99999-1111', 'Gates@outlook.com');
14
15        /* CRUD READ   */
16    •   select * from contatos order by nome;
```
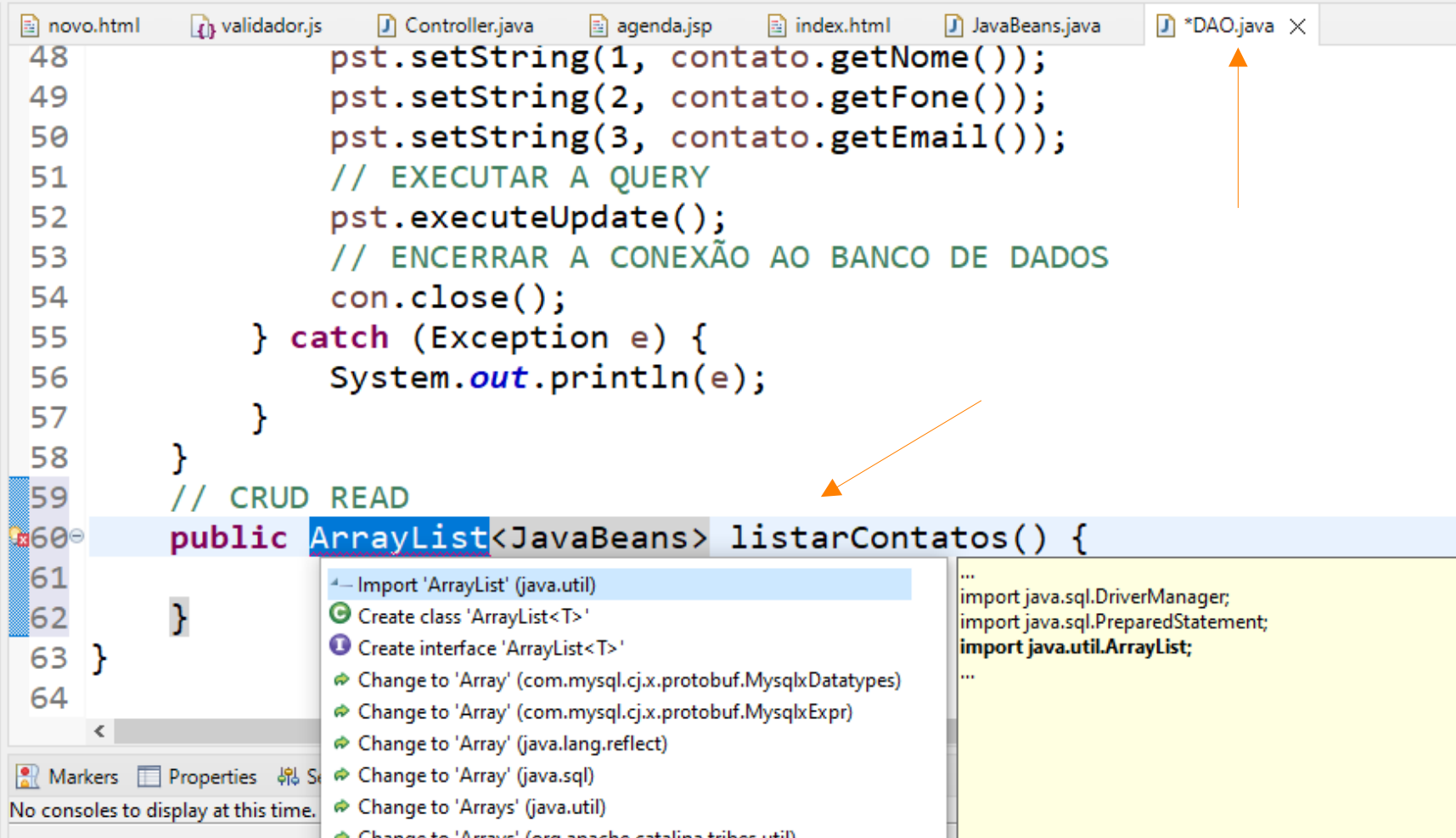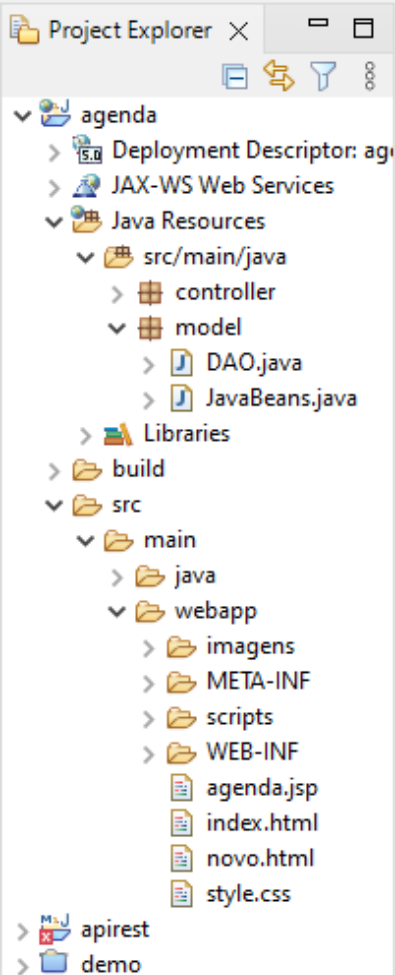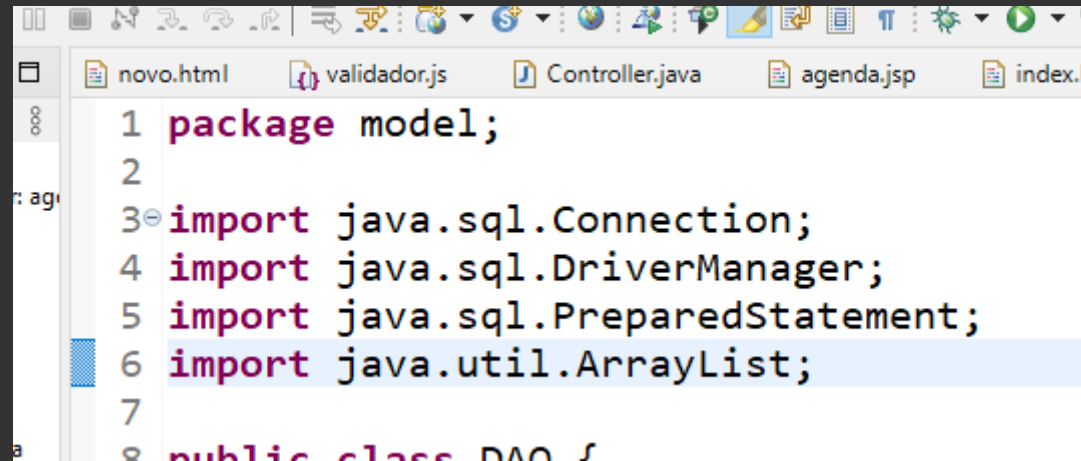
Result Grid   Filter Rows: Edit: Export/Import: Wrap Cell Content:

	idcon	nome	fone	email
▶	1	Bill Gates	99999-1111	Gates@outlook.com
	2	Cris Oliveira	99999-2222	cris@gmail.com
*	NULL	NULL	NULL	NULL

SCHEMAS

Filter objects

▼ dbagenda
  ▼ Tables
    ▶ contatos
  Views
  Stored Procedures
  Functions
▶ sakila
▶ sys
▶ world

Administration   Schemas

Information

No object selected

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer ✕

agenda
  Deployment Descriptor: ag
  JAX-WS Web Services
  Java Resources
    src/main/java
      controller
      model
        DAO.java
        JavaBeans.java
    Libraries
  build
  src
    main
      java
      webapp
        imagens
        META-INF
        scripts
        WEB-INF
      agenda.jsp
      index.html
      novo.html
      style.css
  apirest
  demo
  Hello

novo.html   validador.js   Controller.java   agenda.jsp   index.html   JavaBeans.java   *DAO.java ✕

```java
46          PreparedStatement pst = con.prepareStatement(create);
47          // subistituir os parametros ? pelo conteudo das variaveis ja
48          pst.setString(1, contato.getNome());
49          pst.setString(2, contato.getFone());
50          pst.setString(3, contato.getEmail());
51          // EXECUTAR A QUERY
52          pst.executeUpdate();
53          // ENCERRAR A CONEXÃO AO BANCO DE DADOS
54          con.close();
55      } catch (Exception e) {
56          System.out.println(e);
57      }
58  }
59  // CRUD READ
60      
61  }
62
```
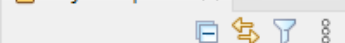
Markers   Properties   Servers   Data Source Explorer   Snippets   Console ✕

No consoles to display at this time.

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer ✕

▼ 🗂 agenda
  ▸ 📄 Deployment Descriptor: ag
  ▸ 📄 JAX-WS Web Services
  ▼ 📄 Java Resources
    ▼ 📁 src/main/java
      ▸ ⊞ controller
      ▼ ⊞ model
        ▸ 🗾 DAO.java
        ▸ 🗾 JavaBeans.java
    ▸ 📄 Libraries
  ▸ 📂 build
  ▼ 📂 src
    ▼ 📂 main
      ▸ 📂 java
      ▼ 📂 webapp
        ▸ 📂 imagens
        ▸ 📂 META-INF
        ▸ 📂 scripts
        ▸ 📂 WEB-INF
        📄 agenda.jsp
        📄 index.html
        📄 novo.html
        📄 style.css
  ▸ 📄 apirest
  ▸ 📂 demo

novo.html   validador.js   Controller.java   agenda.jsp   index.html   JavaBeans.java   *DAO.java ✕

```java
48            pst.setString(1, contato.getNome());
49            pst.setString(2, contato.getFone());
50            pst.setString(3, contato.getEmail());
51            // EXECUTAR A QUERY
52            pst.executeUpdate();
53            // ENCERRAR A CONEXÃO AO BANCO DE DADOS
54            con.close();
55        } catch (Exception e) {
56            System.out.println(e);
57        }
58    }
59    // CRUD READ
60    public ArrayList<JavaBeans> listarContatos() {
61
62    }
63 }
64
```
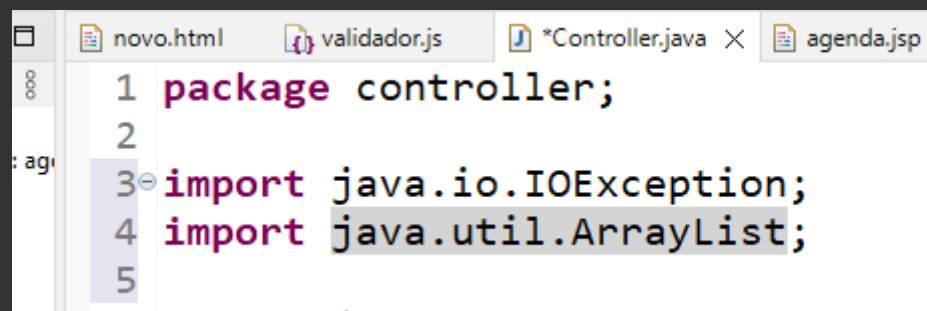
```
  Import 'ArrayList' (java.util)
ⓒ Create class 'ArrayList<T>'
ⓘ Create interface 'ArrayList<T>'
  Change to 'Array' (com.mysql.cj.x.protobuf.MysqlxDatatypes)
  Change to 'Array' (com.mysql.cj.x.protobuf.MysqlxExpr)
  Change to 'Array' (java.lang.reflect)
  Change to 'Array' (java.sql)
  Change to 'Arrays' (java.util)
  Change to 'Arrays' (org apache catalina tribes util)
```

```
...
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.util.ArrayList;
...
```

📋 Markers   📋 Properties   🔲 Se

No consoles to display at this time.

```java
1 package model;
2
3 import java.sql.Connection;
4 import java.sql.DriverManager;
5 import java.sql.PreparedStatement;
6 import java.util.ArrayList;
7
8 public class DAO {
```

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer

novo.html   validador.js   *Controller.java   agenda.jsp   index.html   JavaBeans.java   DAO.java

```
32              }
33          }
34      // listar contatos
35⊖      protected void contatos(HttpServletRequest request, HttpServletRespon
36              //response.sendRedirect("agenda.jsp");
37              /* Criando um objeto que ira receber os dados jababeans */
38              ArrayList<JavaBeans> lista = dao.listarContatos();
39          }
40
41      // No
42⊖      P
43
44
45
46
47
48
```

Import 'ArrayList' (java.util)
Create class 'ArrayList<T>'
Create interface 'ArrayList<T>'
Change to 'Array' (com.mysql.cj.x.protobuf.MysqlxDatatypes)
Change to 'Array' (com.mysql.cj.x.protobuf.MysqlxExpr)
Change to 'Array' (java.lang.reflect)
Change to 'Array' (java.sql)
Change to 'Arrays' (java.util)
Change to 'Arrays' (org.apache.catalina.tribes.util)
Rename in file (Ctrl+2, R)
Fix project setup...

```
...
import jakarta.servlet.http.HttpServletResponse;
import java.io.IOException;
import java.util.ArrayList;

import model.DAO;
import model.JavaBeans;
...
```

Press 'Tab' from proposal table or click for focus

Project Explorer tree:
- agenda
  - Deployment Descriptor: ag
  - JAX-WS Web Services
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    - src/main/java
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        - DAO.java
        - JavaBeans.java
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      - webapp
        - imagens
        - META-INF
        - scripts
        - WEB-INF
        - agenda.jsp
        - index.html
        - novo.html
        - style.css
- apirest
- demo

Markers   Properties   Servers   Data Source Explorer   Snippets   Console
No consoles to display at this time.

Outlin

```java
1 package controller;
2
3 import java.io.IOException;
4 import java.util.ArrayList;
5
```

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer ✕

📄 novo.html   ⊙ validador.js   J *Controller.java ✕   📄 agenda.jsp   📄 index.html   J JavaBeans.java   DAO.java

```
32              }else {
33                  response.sendRedirect("index.html");
34              }
35          }
36          // listar contatos
37⊖        protected void contatos(HttpServletRequest request, HttpServletRespon
38              //response.sendRedirect("agenda.jsp");
39              /* Criando um objeto que ira receber os dados jababeans */
40              ArrayList<JavaBeans> lista = dao.listarContatos();
41          }
42
43          // Novo contato
44⊖        protected void novoContato(HttpServletRequest request, HttpServlet
```

Project Explorer tree:
- agenda
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  - src
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      - webapp
        - imagens

Comente ou apague o
response.sendRedirect("agenda.jsp");
Linha 38

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer

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      > java
      > webapp
        > imagens
        > META-INF
        > scripts
        > WEB-INF
        agenda.jsp
        index.html
        novo.html
        style.css
  > apirest
  > demo
  > Hello

novo.html   validador.js   Controller.java   agenda.jsp   index.html   JavaBeans.java   *DAO.java

```java
56          } catch (Exception e) {
57              System.out.println(e);
58          }
59      }
60      // CRUD READ
61      public ArrayList<JavaBeans> listarContatos() {
62          String read = "select * from contatos order by nome";
63          try {
64              Connection con = conectar();
65              PreparedStatement pst = con.prepareStatement(read);
66              ResultSet rs = pst.executeQuery();
67          } catch (Exception e) {
68              System.out.println(e);
69              return null;
70          }
71      }
72  }
```

import

Markers   Properties   Servers   Data Source Explorer   Snippets   Console

No consoles to display at this time.

```
64   Connection con = conectar();
65   PreparedStatement pst = con.prepareStatement(read);
66   ResultSet rs = pst.executeQuery();
67   } cat
```

Import 'ResultSet' (java.sql)
Create class 'ResultSet'
Create interface 'ResultSet'

```
...
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
```

```
2
3  import java.sql.Connection;
4  import java.sql.DriverManager;
5  import java.sql.PreparedStatement;
6  import java.sql.ResultSet;
7  import java.util.ArrayList;
8
```

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer

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        - scripts
        - WEB-INF
        - agenda.jsp
        - index.html
        - novo.html
        - style.css
  - apirest

Tabs: novo.html | validador.js | Controller.java | agenda.jsp | index.html | JavaBeans.java | DAO.java

```java
61    // CRUD READ
62    public ArrayList<JavaBeans> listarContatos() {
63        String read = "select * from contatos order by nome";
64        try {
65            Connection con = conectar();
66            PreparedStatement pst = con.prepareStatement(read);
67            ResultSet rs = pst.executeQuery();
68            // o laço abaixo sera executado enquanto tiver contatos
69            while (rs.next()) {
70                // variaveis de apoio que recebem os dados do banco
71                String idcon = rs.getString(1);
72            }
73        } catch (Exception e) {
74            System.out.println(e);
75            return null;
76        }
77    }
```
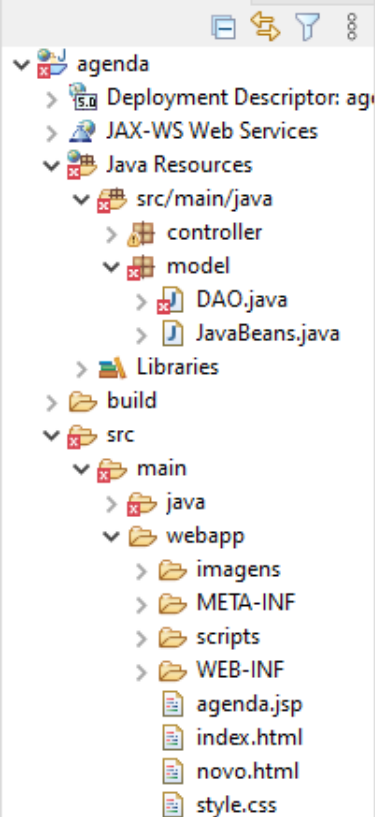
Markers   Properties   Servers   Data Source Explorer   Snippets   Console

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer ×

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      - webapp
        - imagens
        - META-INF
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        - index.html
        - novo.html
        - style.css
  - apirest
  - demo

novo.html | validador.js | Controller.java | agenda.jsp | index.html | JavaBeans.java | DAO.java ×

```java
64          try {
65              Connection con = conectar();
66              PreparedStatement pst = con.prepareStatement(read);
67              ResultSet rs = pst.executeQuery();
68              // o laço abaixo sera executado enquanto tiver contatos
69              while (rs.next()) {
70                  // variaveis de apoio que recebem os dados do banco
71                  String idcon = rs.getString(1);
72                  String nome = rs.getString(2);
73                  String fone = rs.getString(3);
74                  String email = rs.getString(4);
75              }
76          } catch (Exception e) {
77              System.out.println(e);
78              return null;
79          }
80      }
```

Markers   Properties   Servers   Data Source Explorer   Snippets   Console ×

No consoles to display at this time.

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help
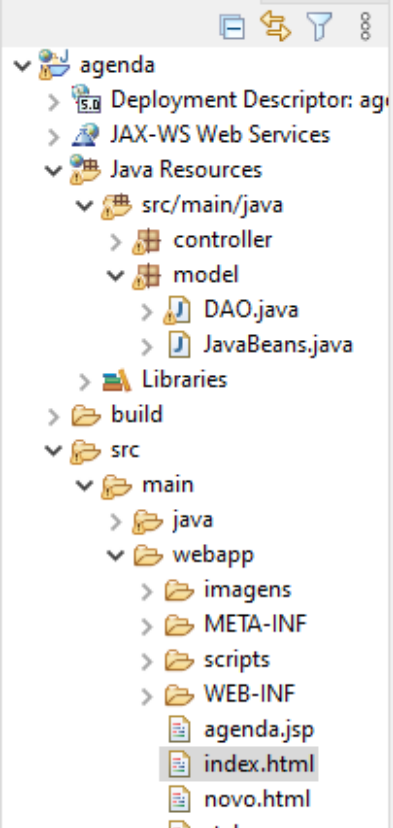
Project Explorer

- agenda
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      - java
      - webapp
        - imagens
        - META-INF

novo.html   validador.js   Controller.java   agenda.jsp   index.html   JavaBeans.java   DAO.java

```java
60      }
61      // CRUD READ
62      public ArrayList<JavaBeans> listarContatos() {
63          // Criando um objeto para acessar a classe javabeans
64          ArrayList<JavaBeans> contatos = new ArrayList();
65          String read = "select * from contatos order by nome";
66          try {
67              Connection con = conectar();
68              PreparedStatement pst = con.prepareStatement(read);
69              ResultSet rs = pst.executeQuery();
70              // o laço abaixo sera executado enquanto tiver contatos
71              while (rs.next()) {
72                  // variaveis de apoio que recebem os dados do banco
```

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer

> agenda
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        > WEB-INF
        agenda.jsp
        index.html
        novo.html
        style.css

novo.html   validador.js   Controller.java   agenda.jsp   index.html   JavaBeans.java   DAO.java
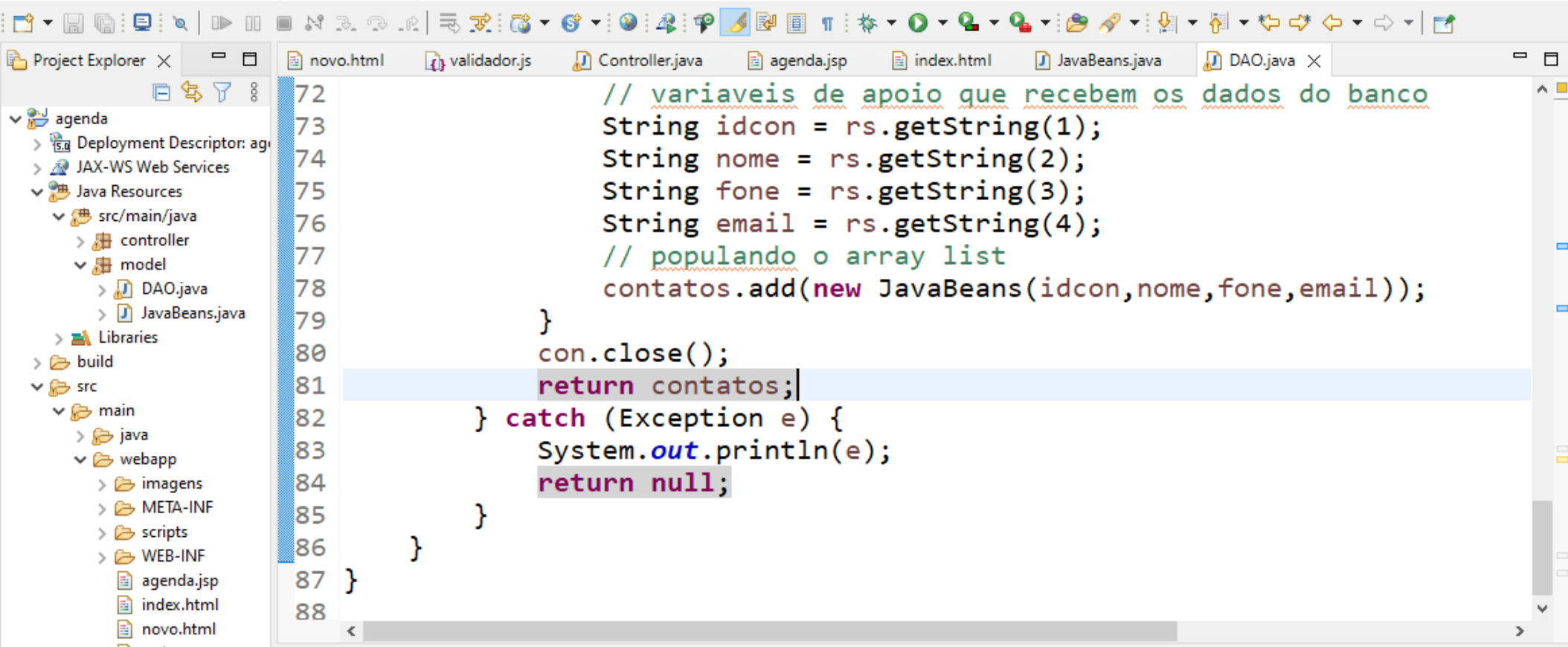
```java
67          Connection con = conectar();
68          PreparedStatement pst = con.prepareStatement(read);
69          ResultSet rs = pst.executeQuery();
70          // o laço abaixo sera executado enquanto tiver contatos
71          while (rs.next()) {
72              // variaveis de apoio que recebem os dados do banco
73              String idcon = rs.getString(1);
74              String nome = rs.getString(2);
75              String fone = rs.getString(3);
76              String email = rs.getString(4);
77              // populando o array list
78              contatos.add(new JavaBeans(idcon,nome,fone,email));
79          }
80      } catch (Exception e) {
81          System.out.println(e);
82          return null;
83      }
```

Markers   Properties   Servers   Data Source Explorer   Snippets   Console

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer ✕

novo.html   validador.js   Controller.java   agenda.jsp   index.html   JavaBeans.java   DAO.java ✕

- agenda
  - Deployment Descriptor: ag
  - JAX-WS Web Services
  - Java Resources
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    - main
      - java
      - webapp
        - imagens
        - META-INF
        - scripts
        - WEB-INF
        - agenda.jsp
        - index.html
        - novo.html

```java
72          // variaveis de apoio que recebem os dados do banco
73          String idcon = rs.getString(1);
74          String nome = rs.getString(2);
75          String fone = rs.getString(3);
76          String email = rs.getString(4);
77          // populando o array list
78          contatos.add(new JavaBeans(idcon,nome,fone,email));
79      }
80      con.close();
81      return contatos;
82  } catch (Exception e) {
83      System.out.println(e);
84      return null;
85      }
86   }
87 }
88
```

Salve tudo selecione o index.html e execute

File   Edit   Source   Navigate   Search   Project   Run   Window   Help

Project Explorer ✕

> agenda
  > Deployment Descriptor: ag
  > JAX-WS Web Services
  > Java Resources
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        > JavaBeans.java
    > Libraries
  > build
  > src
    > main
      > java
      > webapp
        > imagens
        > META-INF
        > scripts
        > WEB-INF
        agenda.jsp
        index.html
        novo.html

novo.html   validador.js   Controller.java   Run nda.jsp   index.html ✕   JavaBeans.java   DAO.java

```html
 1  <!DOCTYPE html>
 2  <html lang="pt-br">
 3  <head>
 4  <meta charset="utf-8">
 5  <title>Agenda de contatos</title>
 6  <link rel="icon" href="imagens/favicon.png">
 7  <link rel="stylesheet" href="style.css">
 8  </head>
 9  <body>
10      <img src="imagens/agenda.png">
11      <h1>Agenda de contatos</h1>
12      <a href="main" class="Botao1">Acessar</a>
13  </body>
14  </html>
```

Ele retorna tudo que esta armazenado no banco de dados

Comente ou delete esse teste

File   Edit   Source   Refactor   Navigate   Search   Project   Run   Window   Help

Project Explorer ×

- agenda
  - Deployment Descriptor: ag
  - JAX-WS Web Services
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        - novo.html
        - style.css
- apirest
- demo
- Hello

novo.html   validador.js   *Controller.java ×   agenda.jsp   index.html   JavaBeans.java   DAO.java

```java
37       // listar contatos
38       protected void contatos(HttpServletRequest request, HttpServletRespons
39           //response.sendRedirect("agenda.jsp");
40           /* Criando um objeto que ira receber os dados jababeans */
41           ArrayList<JavaBeans> lista = dao.listarContatos();
42           // teste de recebimento da lista
43           /*for (int i = 0; i < lista.size(); i++) {
44               System.out.println(lista.get(i).getIdcon());
45               System.out.println(lista.get(i).getNome());
46               System.out.println(lista.get(i).getFone());
47               System.out.println(lista.get(i).getEmail());
48           }*/
49       }
50
51       // Novo contato
52       protected void novoContato(HttpServletRequest request, HttpServlet
```

Markers   Properties   Servers   Data Source Explorer   Snippets   Console ×

Tomcat v10.0 Server at localhost [Apache Tomcat] C:\Program Files\Java\jdk-11.0.11\bin\javaw.exe (14 de jul. de 2022 17:36:12) [pid: 6192]

INFO: Deployment of web application directory [C:\apache-tomcat-10.0.22\webapps\RO
jul 14, 2022 5:36:21 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-8080"]