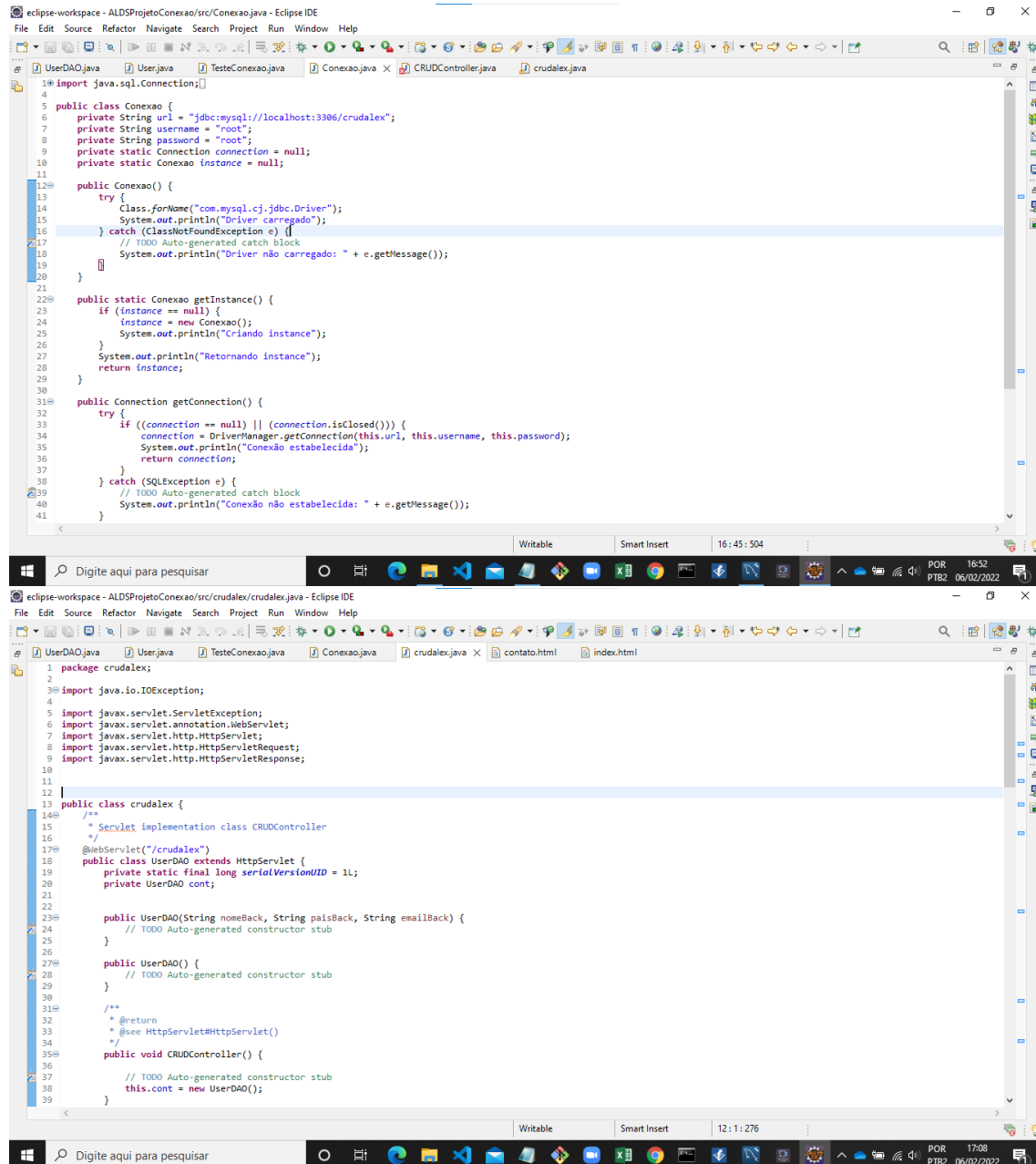


## EVIDENCIAS:



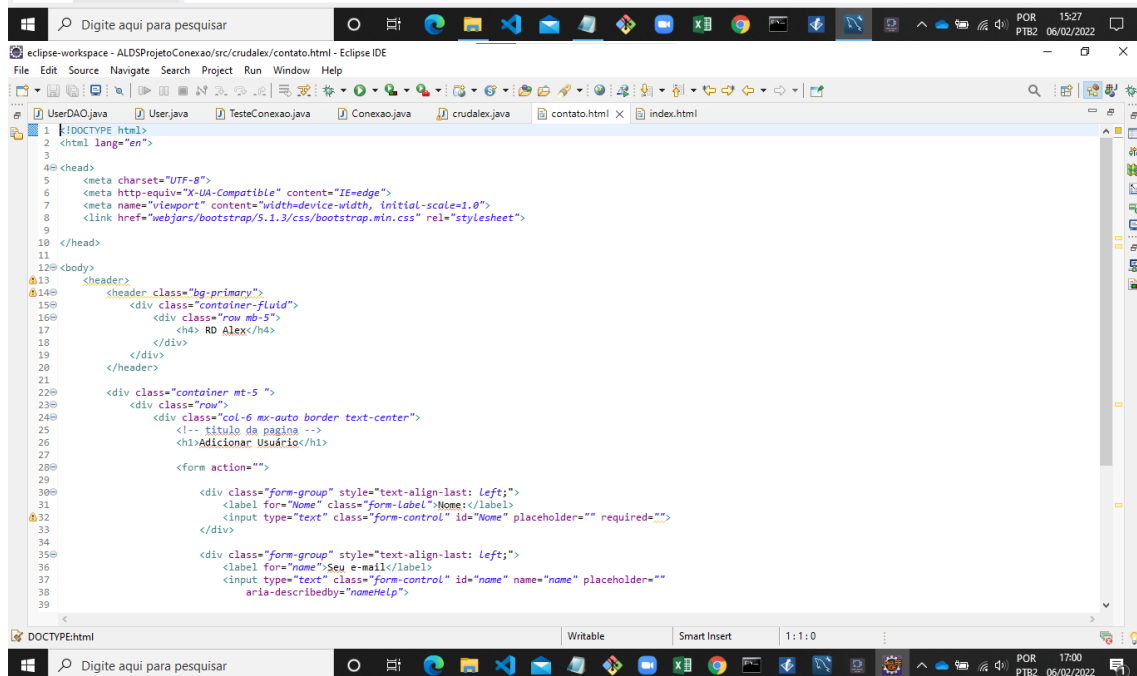
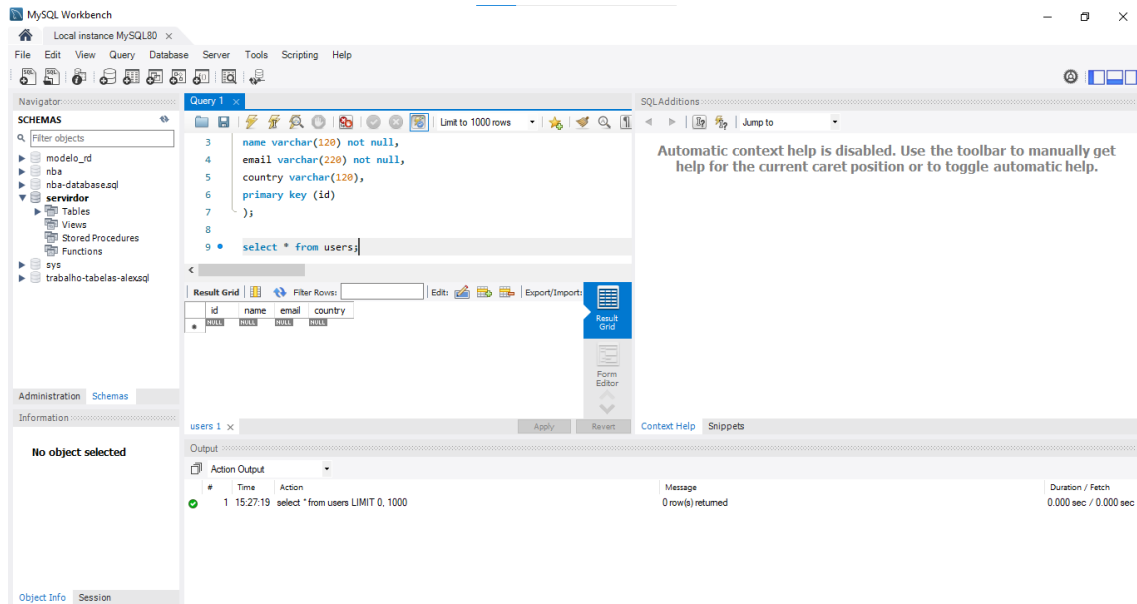
The image displays two screenshots of the Eclipse IDE, showing the development of a Java application. The top screenshot shows the `Conexao.java` file, which is responsible for establishing a database connection. The bottom screenshot shows the `crudalex.java` file, which is a servlet implementation of the `CRUDController`.

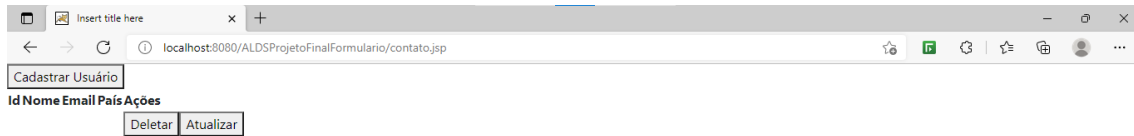
**Top Screenshot: `Conexao.java`**

```
1 import java.sql.Connection;
2
3
4 public class Conexao {
5     private String url = "jdbc:mysql://localhost:3306/crudalex";
6     private String username = "root";
7     private String password = "root";
8     private static Connection connection = null;
9     private static Conexao instance = null;
10
11
12     public Conexao() {
13         try {
14             Class.forName("com.mysql.cj.jdbc.Driver");
15             System.out.println("Driver carregado");
16         } catch (ClassNotFoundException e) {
17             // TODO Auto-generated catch block
18             System.out.println("Driver não carregado: " + e.getMessage());
19         }
20     }
21
22     public static Conexao getInstance() {
23         if (instance == null) {
24             instance = new Conexao();
25             System.out.println("Criando instance");
26         }
27         System.out.println("Retornando instance");
28         return instance;
29     }
30
31     public Connection getConnection() {
32         try {
33             if ((connection == null) || (connection.isClosed())) {
34                 connection = DriverManager.getConnection(this.url, this.username, this.password);
35                 System.out.println("Conexão estabelecida");
36                 return connection;
37             }
38         } catch (SQLException e) {
39             // TODO Auto-generated catch block
40             System.out.println("Conexão não estabelecida: " + e.getMessage());
41         }
42     }
43 }
```

**Bottom Screenshot: `crudalex.java`**

```
1 package crudalex;
2
3 import java.io.IOException;
4
5 import javax.servlet.ServletException;
6 import javax.servlet.annotation.WebServlet;
7 import javax.servlet.http.HttpServlet;
8 import javax.servlet.http.HttpServletRequest;
9 import javax.servlet.http.HttpServletResponse;
10
11
12 public class crudalex {
13     /**
14      * Servlet implementation class CRUDController
15      */
16     @WebServlet("/crudalex")
17     public class UserDAO extends HttpServlet {
18         private static final long serialVersionUID = 1L;
19         private UserDAO cont;
20
21
22         public UserDAO(String nomeBack, String paisBack, String emailBack) {
23             // TODO Auto-generated constructor stub
24         }
25
26         public UserDAO() {
27             // TODO Auto-generated constructor stub
28         }
29
30         /**
31          * @return
32          * @see HttpServlet#HttpServlet()
33          */
34         public void CRUDController() {
35             // TODO Auto-generated constructor stub
36             this.cont = new UserDAO();
37         }
38     }
39 }
```





```
eclipse-workspace - ALDSProjetoFinalFormulario/src/main/java/app/UserDAO.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

contato.jsp formulario.jsp Conexao.java TesteConexao.java Userjava UserDAO.java X

1 package app;
2
3 import java.sql.Connection;
4
5
6
7
8
9
10 public class UserDAO {
11
12 public UserDAO() {
13
14 }
15
16 public void addUser(User contatoUser) {
17     Conexao c = Conexao.getInstance();
18     Connection con = c.getConnection();
19
20     try {
21         PreparedStatement p = con.prepareStatement("insert into users (name, email) values (?, ?)");
22         p.setString(1, contatoUser.getNome());
23         p.setString(2, contatoUser.getEmail());
24         System.out.println(p);
25         p.executeUpdate();
26         System.out.println("Comando executado");
27         p.close();
28     } catch (SQLException e) {
29         // TODO Auto-generated catch block
30         e.printStackTrace();
31     }
32
33 }
34
35 public ArrayList<User> getListUser(){
36     Conexao c = Conexao.getInstance();
37     Connection con = c.getConnection();
38     ArrayList<User> lista = new ArrayList<User>();
39     try {
40         PreparedStatement p = con.prepareStatement("select * from users");
41         ResultSet r = p.executeQuery();
42
43         while (r.next()) {
```

```
eclipse-workspace - ALDSProjetoFinalFormulario/src/main/webapp/formulario.jsp - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

contato.jsp formulario.jsp X Conexao.java TesteConexao.java Userjava UserDAO.java

1 <%@ page language="java" contentType="text/html; charset=ISO-8859-1" %>
2 pageEncoding="ISO-8859-1"%
3 <!DOCTYPE html>
4 <html>
5 <head>
6 <meta charset="ISO-8859-1">
7 <title>Insert title here</title>
8 <link href="webjars/bootstrap/5.1.3/css/bootstrap.min.css" rel="stylesheet">
9 </head>
10 <body>
11 <form action="app" method="post">
12     <div>
13         <div>
14             <input type="text" name="nome" value="" required/>
15             <input type="text" name="email" value="" required/>
16             <input type="text" name="pais" value="" required/>
17         </div>
18         <button type="submit" name="app" value="insert">Salvar</button>
19     </div>
20     <div>
21         <input type="hidden" name="id" value=""/>
22         <input type="text" name="nome" value="" required/>
23         <input type="text" name="email" value="" required/>
24         <input type="text" name="pais" value="" required/>
25     </div>
26     <button type="submit" name="app" value="update">Atualizar</button>
27 </div>
28 </form>
29 </body>
30 </html>
31 </body>
32 </html>
```

Insert title here x +

localhost:8080/ALDSProjetoFinalFormulario/formulario.jsp

Nome:  Email:  País:  Salvar Nome:  Email:  País:

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

- modelo\_rd
- nba
- nba-databasesql
- servidor
  - Tables
  - Views
  - Stored Procedures
  - Functions
- sys
- trabalho-tabelas-alexsql

Query 1 x

Limit to 1000 rows

```
3 name varchar(120) not null,  
4 email varchar(220) not null,  
5 country varchar(120),  
6 primary key (id)  
7 );  
8  
9 select * from users;
```

Result Grid

id	email	country
1	alex@gmail.com	

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

users 1 x

Apply Revert Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:27:19	select * from users LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
2	17:22:45	EXPLAIN select * from users	OK	0.000 sec

Object Info Session

Insert title here

localhost:8080/ALDSProjetoFinalFormulario/formulario.jsp

Nome:

Email:

País:

Salvar

Nome:

Email:

País:

Atualizar