

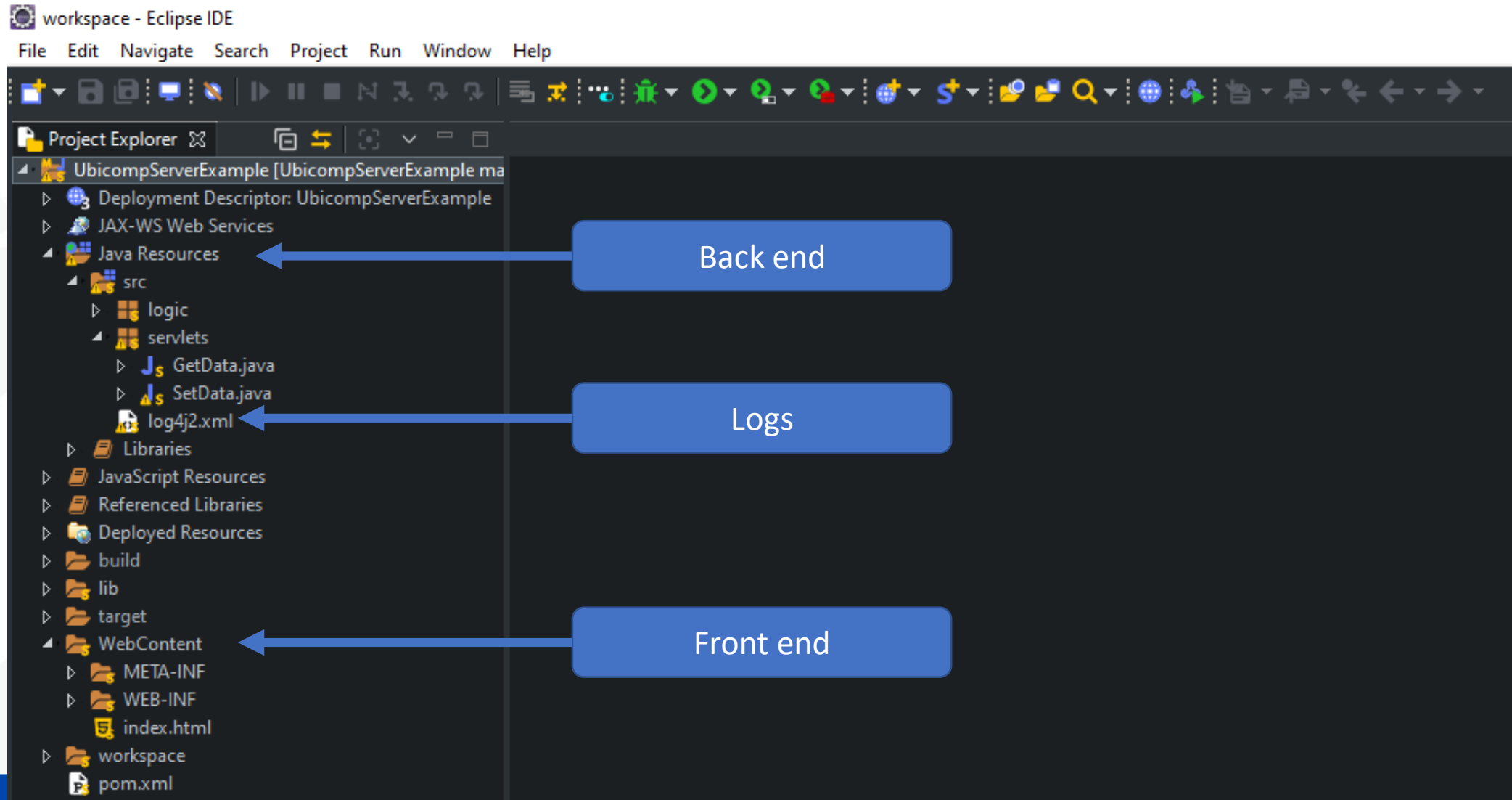
Computación Ubicua

Sesión 7 – Ejemplo de un proyecto Web

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Estructura de un proyecto Web



Ajax

```
function loadData()
{
    $.ajax(
    {
        data: {},
        url:  "/Ubicomp/GetData",
        type: 'post',
        async: false,
        success: function (response)
        {
            var resp = JSON.parse(response);
            console.log(resp);
            $("#dataTable").empty();
            var newRow = "";
            $.each(resp, function (i, value)
            {
                newRow += "<tr>";
                newRow += "<td>" + value.date + "</td>";
                newRow += "<td>" + value.value + " °C</td>";
                newRow += "</tr>";
            });
            $("#dataTable").append(newRow);
        }
    });
}
```

```
function insertData()
{
    var value = $('#newValue').val();
    $.ajax(
    {
        data: {value:value},
        url:  "/Ubicomp/SetData",
        type: 'post',
        async: false,
        success: function (response)
        {
            loadData();
        }
    });
}
```

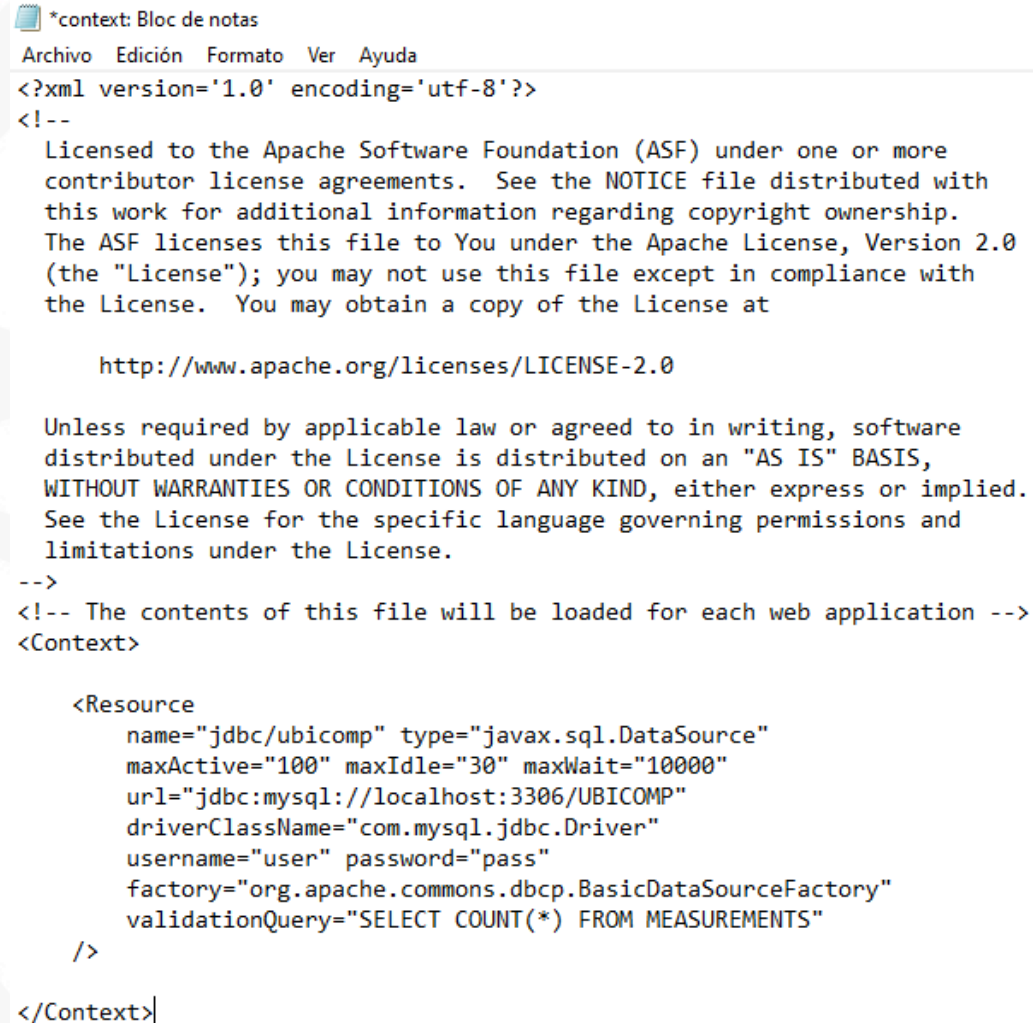
Servlets

```
1 package servlets;
2
3 import java.io.IOException;
4
14 @WebServlet("/SetData")
15 public class SetData extends HttpServlet
16 {
17     private static final long serialVersionUID = 1L;
18
20     public SetData(){
21         super();
22     }
23
24     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException{
25         LCon.Log.info("--Get values from the DB--");
26         response.setContentType("text/html;charset=UTF-8");
27         PrintWriter out = response.getWriter();
28         try {
29             int value = Integer.parseInt(request.getParameter("value"));
30             Logic.setDataToDB(value);
31         } catch (NumberFormatException nfe){
32             out.println("-1");
33             LCon.Log.error("Number Format Exception: " + nfe);
34         } catch (IndexOutOfBoundsException iobe) {
35             out.println("-1");
36             LCon.Log.error("Index out of bounds Exception: " + iobe);
37         } catch (Exception e){
38             out.println("-1");
39             LCon.Log.error("Exception: " + e);
40         } finally{
41             out.close();
42         }
43     }
44     protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
45         doGet(request, response);
46     }
47
48 }
```

Mensajes de Log

```
-- UBICOMP EXAMPLE --
2019-10-28 17:59:39.384 INFO   servlets.GetData.doGet(GetData.java:38) log ### --Set new value into the DB--
2019-10-28 17:59:39.387 INFO   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:23) log ### Intento 0 de conexion a la base de datos
2019-10-28 17:59:39.399 DEBUG   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:35) log ### Creacion de conexion. Identificador de conexion a bd:
jdbc:mysql://127.0.0.1:3306/UBICOMP, UserName=xsystem@127.0.0.1, MySQL Connector Java obtenido en 2019-10-28
2019-10-28 17:59:39.400 INFO   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:37) log ### Conexion obtenida en el intento: 0
2019-10-28 17:59:39.400 INFO   logic.Logic.getDataFromDB(Logic.java:22) log ### Database Connected
2019-10-28 17:59:39.400 INFO   logic.Logic.getDataFromDB(Logic.java:25) log ### Query=>com.mysql.jdbc.JDBC42PreparedStatement@13a0a2a4: SELECT * FROM
UBICOMP.MEASUREMENT
2019-10-28 17:59:39.402 INFO   logic.ConnectionDDBB.closeConnection(ConnectionDDBB.java:81) log ### Se va a devolver la conexion
2019-10-28 17:59:39.402 DEBUG   logic.ConnectionDDBB.closeConnection(ConnectionDDBB.java:86) log ### Cierre de conexion. Identificador de conexion a bd:
jdbc:mysql://127.0.0.1:3306/UBICOMP, UserName=xsystem@127.0.0.1, MySQL Connector Java obtenido en 2019-10-28
2019-10-28 17:59:39.403 INFO   logic.ConnectionDDBB.closeConnection(ConnectionDDBB.java:90) log ### Se ha devuelto la conexion
2019-10-28 17:59:39.505 INFO   servlets.GetData.doGet(GetData.java:45) log ### Values=>[{"value":25,"date":"Oct 24, 2019 8:00:00 AM"}, {"value":20,"date":"Oct 27, 2019
4:42:05 PM"}, {"value":20,"date":"Oct 27, 2019 4:42:17 PM"}, {"value":20,"date":"Oct 28, 2019 5:40:50 PM"}, {"value":20,"date":"Oct 28, 2019 5:40:57
PM"}, {"value":20,"date":"Oct 28, 2019 5:42:11 PM"}, {"value":20,"date":"Oct 28, 2019 5:44:15 PM"}, {"value":20,"date":"Oct 28, 2019 5:50:18 PM"}, {"value":15,"date":"Oct
28, 2019 5:52:14 PM"}]
2019-10-28 17:59:42.360 INFO   servlets.GetData.doGet(GetData.java:38) log ### --Set new value into the DB--
2019-10-28 17:59:42.361 INFO   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:23) log ### Intento 0 de conexion a la base de datos
2019-10-28 17:59:42.364 DEBUG   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:35) log ### Creacion de conexion. Identificador de conexion a bd:
jdbc:mysql://127.0.0.1:3306/UBICOMP, UserName=xsystem@127.0.0.1, MySQL Connector Java obtenido en 2019-10-28
2019-10-28 17:59:42.364 INFO   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:37) log ### Conexion obtenida en el intento: 0
2019-10-28 17:59:42.364 INFO   logic.Logic.getDataFromDB(Logic.java:22) log ### Database Connected
2019-10-28 17:59:42.365 INFO   logic.Logic.getDataFromDB(Logic.java:25) log ### Query=>com.mysql.jdbc.JDBC42PreparedStatement@72221de3: SELECT * FROM
UBICOMP.MEASUREMENT
2019-10-28 17:59:42.366 INFO   logic.ConnectionDDBB.closeConnection(ConnectionDDBB.java:81) log ### Se va a devolver la conexion
2019-10-28 17:59:42.366 DEBUG   logic.ConnectionDDBB.closeConnection(ConnectionDDBB.java:86) log ### Cierre de conexion. Identificador de conexion a bd:
jdbc:mysql://127.0.0.1:3306/UBICOMP, UserName=xsystem@127.0.0.1, MySQL Connector Java obtenido en 2019-10-28
2019-10-28 17:59:42.366 INFO   logic.ConnectionDDBB.closeConnection(ConnectionDDBB.java:90) log ### Se ha devuelto la conexion
2019-10-28 17:59:42.368 INFO   servlets.GetData.doGet(GetData.java:45) log ### Values=>[{"value":25,"date":"Oct 24, 2019 8:00:00 AM"}, {"value":20,"date":"Oct 27, 2019
4:42:05 PM"}, {"value":20,"date":"Oct 27, 2019 4:42:17 PM"}, {"value":20,"date":"Oct 28, 2019 5:40:50 PM"}, {"value":20,"date":"Oct 28, 2019 5:40:57
PM"}, {"value":20,"date":"Oct 28, 2019 5:42:11 PM"}, {"value":20,"date":"Oct 28, 2019 5:44:15 PM"}, {"value":20,"date":"Oct 28, 2019 5:50:18 PM"}, {"value":15,"date":"Oct
28, 2019 5:52:14 PM"}]
2019-10-28 17:59:45.657 INFO   servlets.SetData.doGet(SetData.java:38) log ### --Get values from the DB--
2019-10-28 17:59:45.657 INFO   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:23) log ### Intento 0 de conexion a la base de datos
2019-10-28 17:59:45.659 DEBUG   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:35) log ### Creacion de conexion. Identificador de conexion a bd:
jdbc:mysql://127.0.0.1:3306/UBICOMP, UserName=xsystem@127.0.0.1, MySQL Connector Java obtenido en 2019-10-28
2019-10-28 17:59:45.659 INFO   logic.ConnectionDDBB.obtainConnection(ConnectionDDBB.java:37) log ### Conexion obtenida en el intento: 0
2019-10-28 17:59:45.659 INFO   logic.Logic.setDataToDB(Logic.java:60) log ### Database Connected
2019-10-28 17:59:45.660 INFO   logic.Logic.setDataToDB(Logic.java:65) log ### Query=>com.mysql.jdbc.JDBC42PreparedStatement@21d639c9: INSERT INTO UBICOMP.MEASUREMENT
VALUES (22,'2019-10-28 17:59:45')
2019-10-28 17:59:45.667 INFO   logic.ConnectionDDBB.closeConnection(ConnectionDDBB.java:81) log ### Se va a devolver la conexion
2019-10-28 17:59:45.668 DEBUG   logic.ConnectionDDBB.closeConnection(ConnectionDDBB.java:86) log ### Cierre de conexion. Identificador de conexion a bd:
```

Pool de conexiones



*context: Bloc de notas

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```
<?xml version='1.0' encoding='utf-8'?>
<!--
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contributor license agreements. See the NOTICE file distributed with
this work for additional information regarding copyright ownership.
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distributed under the License is distributed on an "AS IS" BASIS,
WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
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limitations under the License.
-->
<!-- The contents of this file will be loaded for each web application -->
<Context>

    <Resource
        name="jdbc/ubicomp" type="javax.sql.DataSource"
        maxActive="100" maxIdle="30" maxWait="10000"
        url="jdbc:mysql://localhost:3306/UBICOMP"
        driverClassName="com.mysql.jdbc.Driver"
        username="user" password="pass"
        factory="org.apache.commons.dbcp.BasicDataSourceFactory"
        validationQuery="SELECT COUNT(*) FROM MEASUREMENTS"
    />

</Context>
```

Proyecto de ejemplo

<https://github.com/acastillom3/Ubicomp.git>