

SERVLETS AND JSP COURSE

EXPRESSION LANGUAGE WITH JSP' S



By the expert: Eng. Ubaldo Acosta

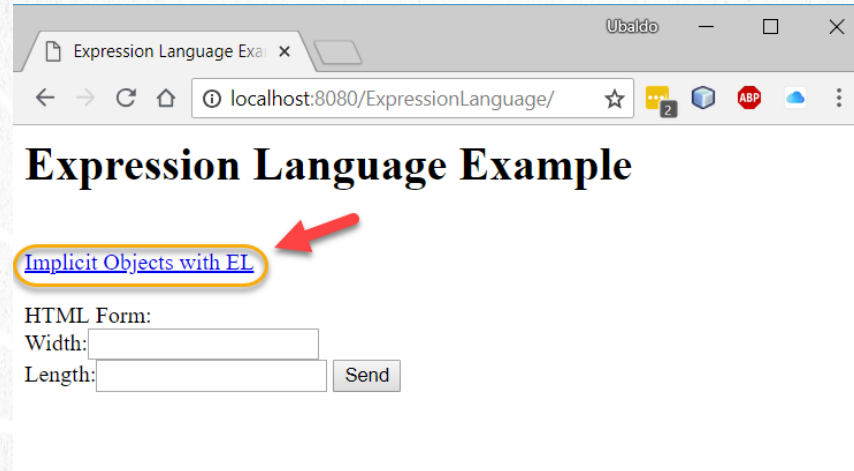


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EXERCISE OBJECTIVE

Create a Web project to implement the Expression Language concept. At the end we should observe the following:



1. CREATE A NEW PROJECT

Create a new web Project using Maven:

New Web Application [X]

Steps

1. Choose Project
2. **Name and Location**
3. Settings

Name and Location

Project Name: ExpressionLanguage

Project Location: C:\Courses\Servlets\Lesson16 [Browse...]

Project Folder: C:\Courses\Servlets\Lesson16\ExpressionLanguage

Artifact Id: ExpressionLanguage

Group Id: web

Version: 1

Package: (Optional)

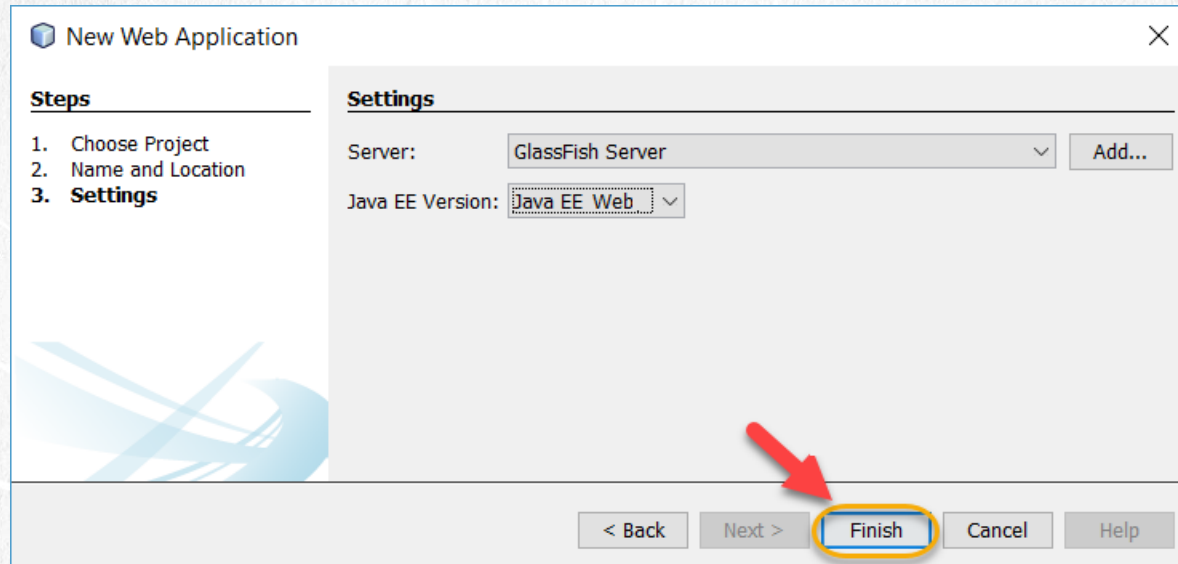
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1. CREATE A NEW PROJECT (CONT)

Create a new project:



New Web Application

Steps

1. Choose Project
2. Name and Location
3. **Settings**

Settings

Server: GlassFish Server Add...

Java EE Version: Java EE Web

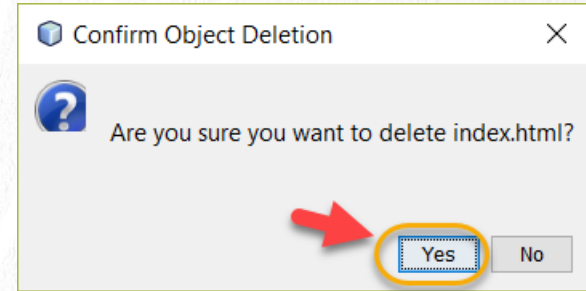
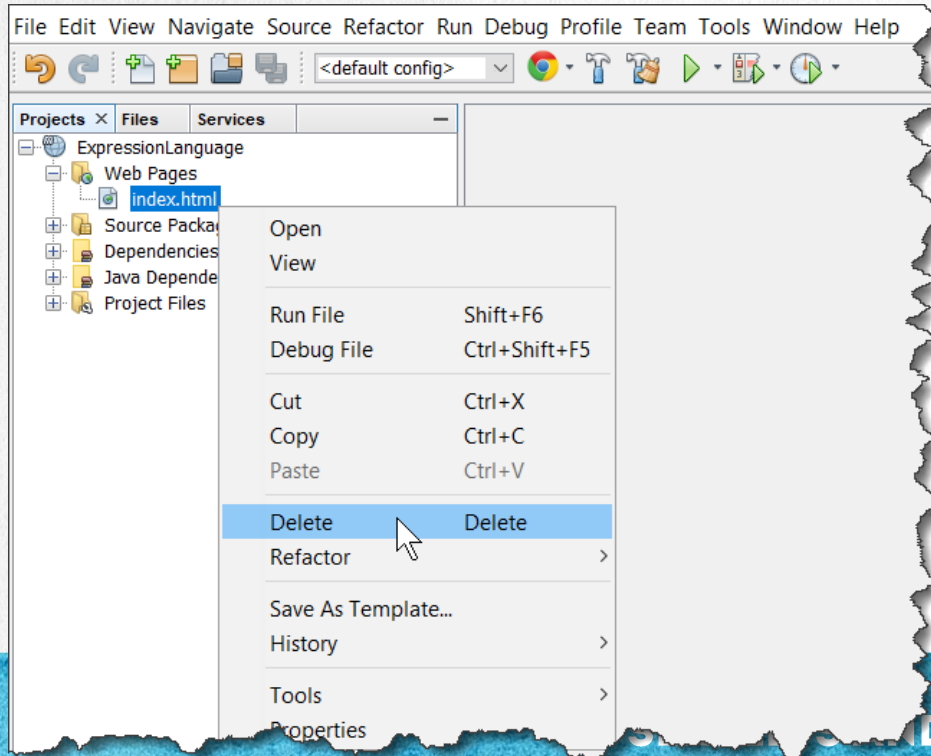
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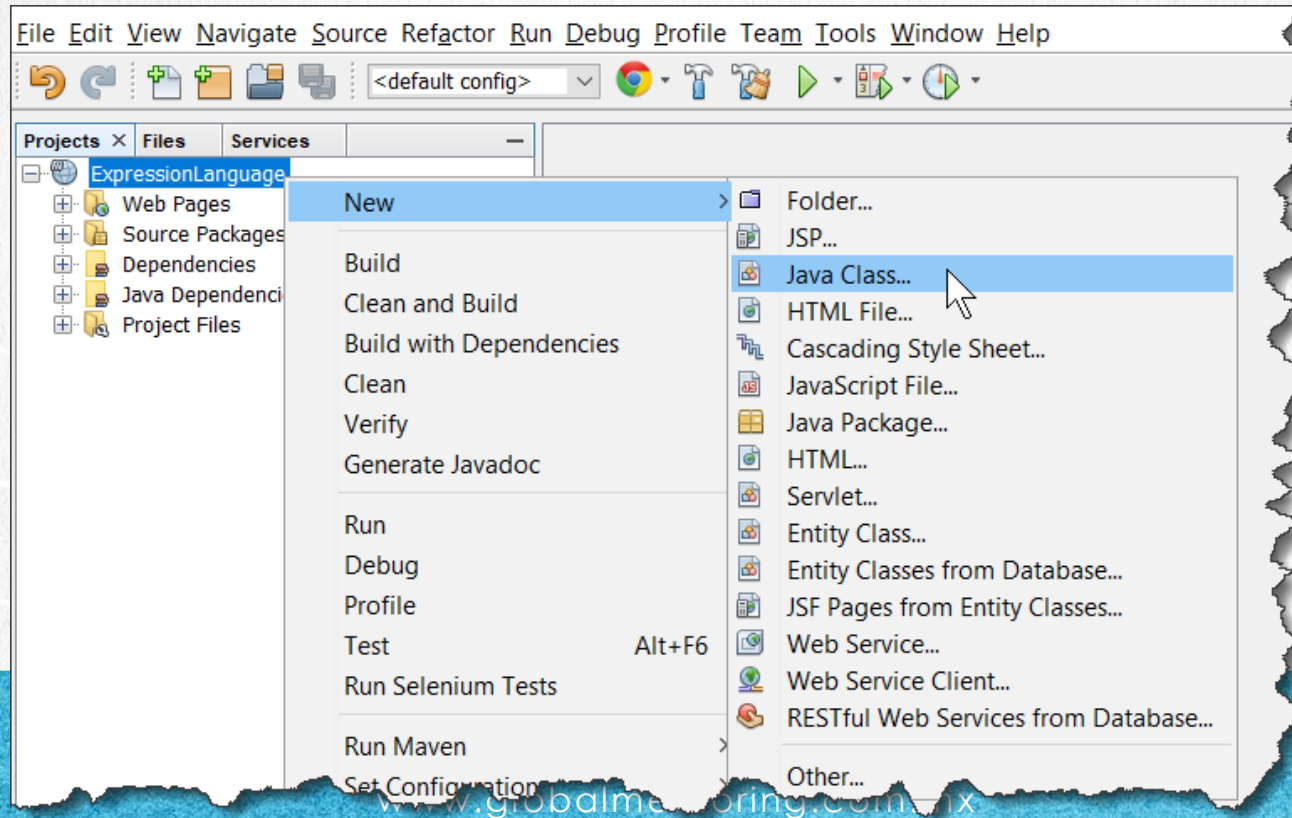
2. DELETE THE INDEX.HTML FILE

Delete the index.html file:



3. CREATE A NEW CLASS

Create a new Rectangle.java class:



3. CREATE A NEW CLASS

Create a new Rectangle.java:

New Java Class

Steps

1. Choose File Type
2. **Name and Location**

Name and Location

Class Name:

Project:

Location:

Package:

Created File:

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4. MODIFY THE FILE

Rectangle.java:

[Click to download](#)

```
package beans;

public class Rectangle {
    private int width = 5;
    private int length = 10;

    public int getLength() {
        return length;
    }

    public void setLength(int length) {
        this.length = length;
    }

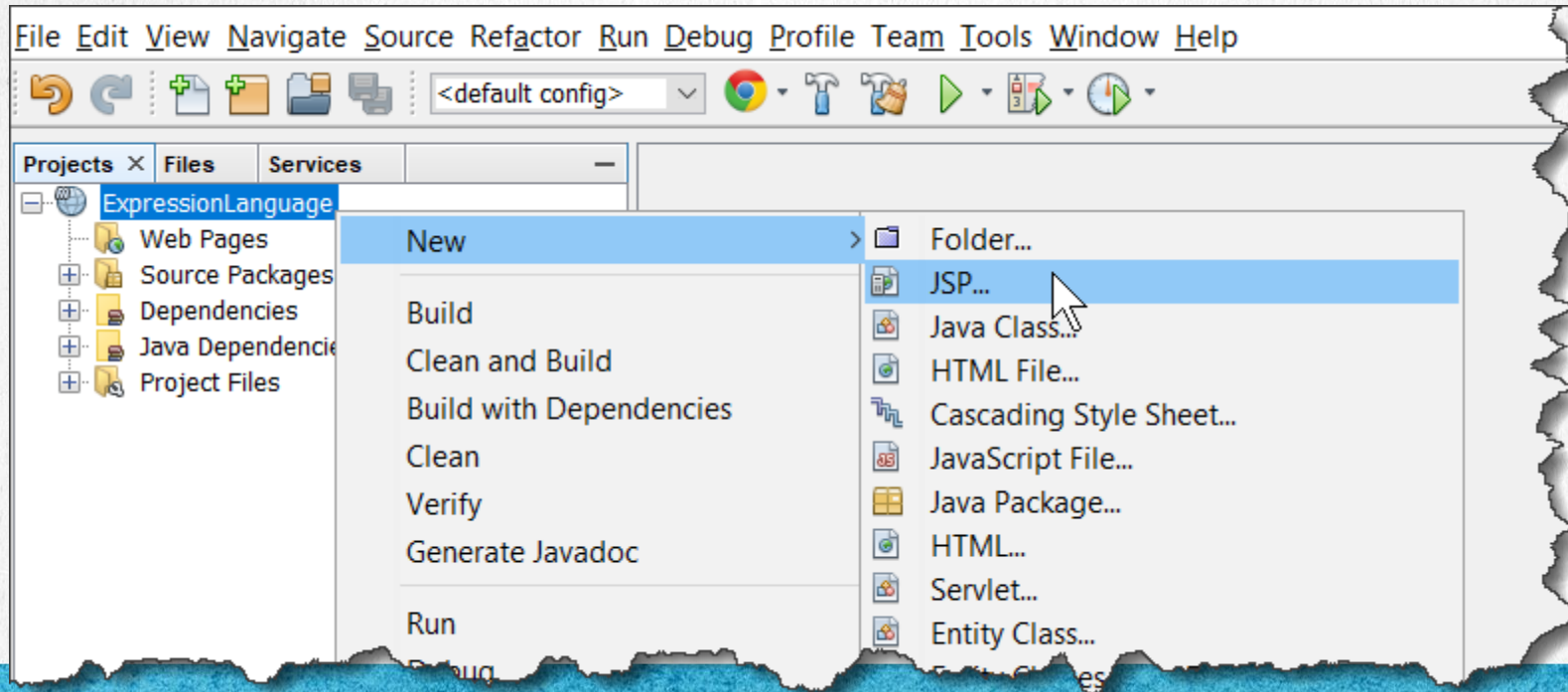
    public int getWidth() {
        return width;
    }

    public void setWidth(int width) {
        this.width = width;
    }

    public int getArea(){
        return this.width * this.length;
    }
}
```


5. CREATE A NEW JSP

Create the javaBeanJsp.jsp file:



5. CREATE A NEW JSP

Create the javaBeanJsp.jsp file:

New JSP

Steps

1. Choose File Type
2. **Name and Location**

Name and Location

File Name:

Project:

Location:

Folder:

Browse...

Created File:

Options:

☒ JSP File (Standard Syntax) ☐ Create as a JSP Segment

☐ JSP Document (XML Syntax)

Description:

< Back Next > **Finish** Cancel Help

6. MODIFY THE FILE

[javaBeanJsp.jsp](#)

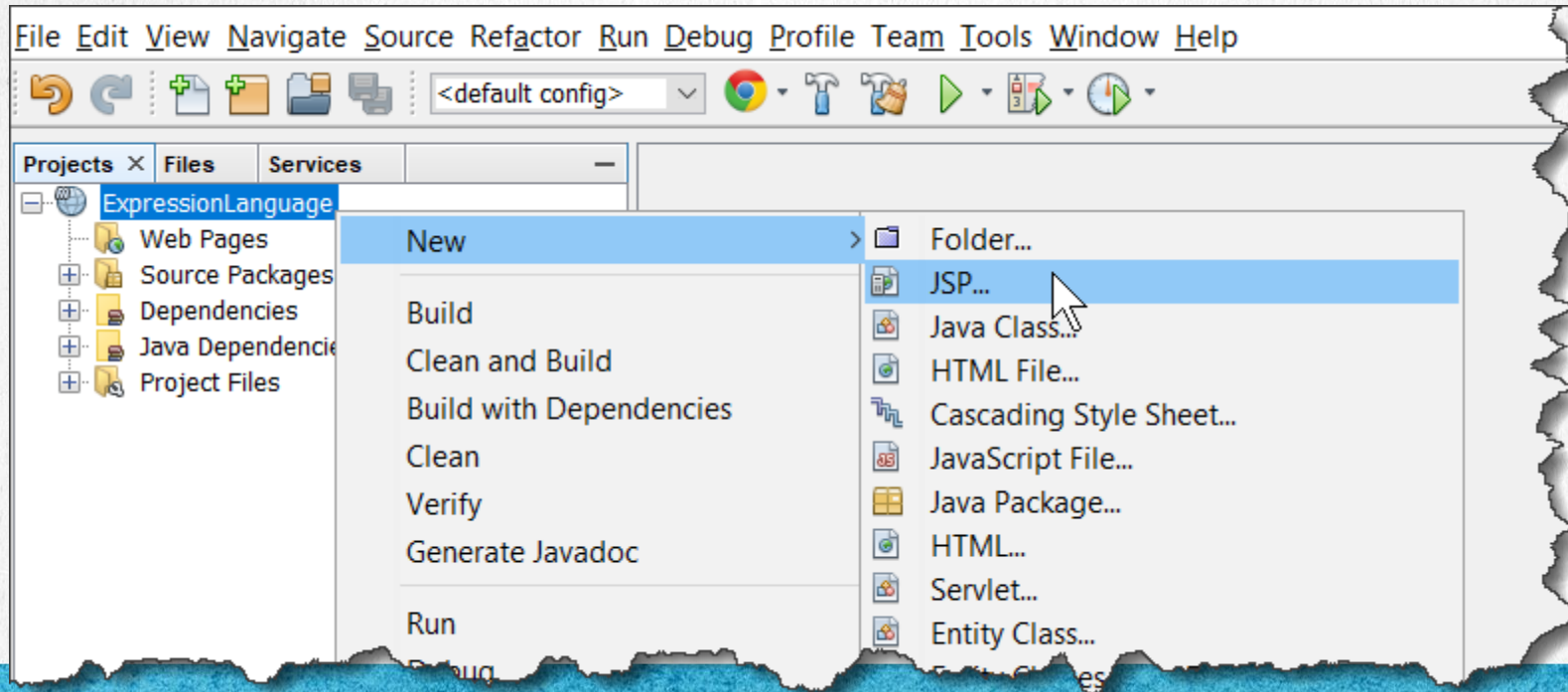
Click to download

```
<html>
  <head>
    <meta charset="UTF-8">
    <title>Access to the JavaBean</title>
  </head>
  <body>
    <h1>Access to the JavaBean</h1>
    <jsp:useBean id="rectangle" class="beans.Rectangle" />

    <!-- assign the form values to the JavaBean -->
    <jsp:setProperty name="rectangle" property="*" />
    <br>
    Width value: ${rectangle.width}
    <br>
    Length value: ${rectangle.length}
    <br>
    Area value: ${rectangle.area}
    <br>
    Area calculation: ${rectangle.width*rectangle.length}
    <br>
    <br>
    <a href="index.jsp">Return to index</a>
  </body>
</html>
```


7. CREATE A NEW JSP

Create the implicitVariables.jsp file:



7. CREATE A NEW JSP

Create the implicitVariables.jsp file:

New JSP

Steps

1. Choose File Type
2. **Name and Location**

Name and Location

File Name:

Project:

Location:

Folder:

Created File:

Options:

☒ JSP File (Standard Syntax) ☐ Create as a JSP Segment

☐ JSP Document (XML Syntax)

Description:

8. MODIFY THE FILE

[implicitVariables.jsp](#)

Click to download

```
<html>
  <head>
    <meta charset="UTF-8">
    <title>EL and Implicit Variables</title>
  </head>
  <body>
    <h1>EL and Implicit Variables</h1>

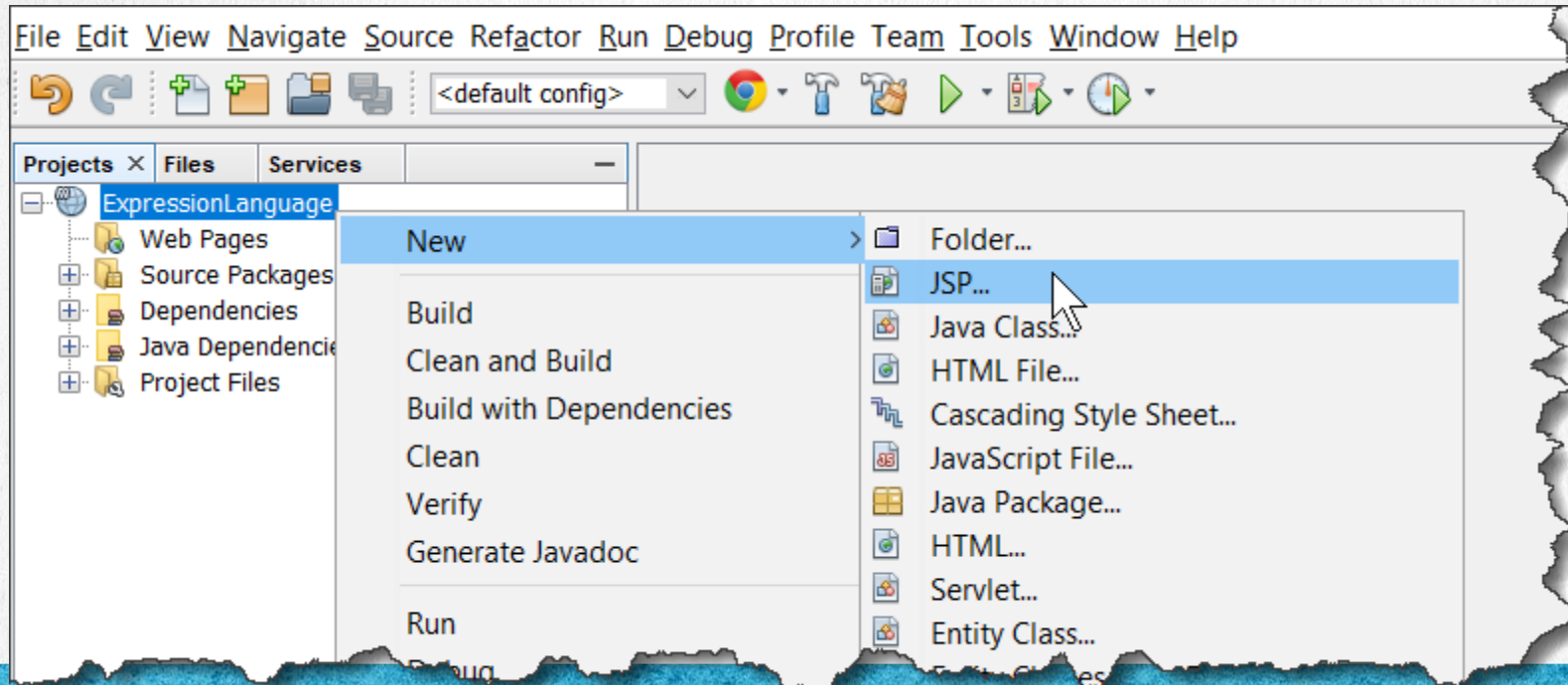
    <ul>
      <li>Application Name: ${pageContext.request.contextPath}</li>
      <li>Client Browser: ${ header["User-Agent"] }
      <li>Session Id: ${cookie.JSESSIONID.value}</li>
      <li>Web Server: ${pageContext.servletContext.serverInfo}
      <li>Value for the User: ${param["user"]}</li>
    </ul>

    <br>
    <br>
    <a href="index.jsp">Return to index</a>

  </body>
</html>
```


9. CREATE A JSP

Create the index.jsp file:

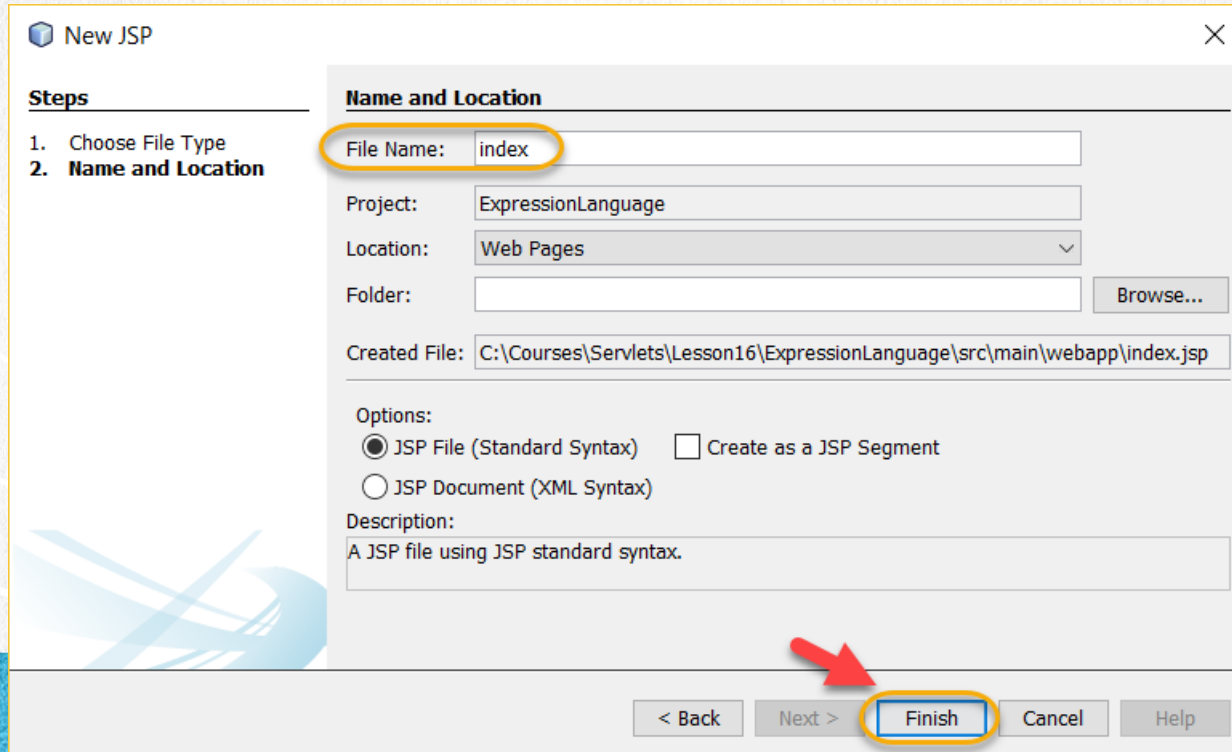


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9. CREATE A JSP

Create the index.jsp file:



New JSP

Steps

1. Choose File Type
2. **Name and Location**

Name and Location

File Name:

Project:

Location:

Folder:

Created File:

Options:

☒ JSP File (Standard Syntax) ☐ Create as a JSP Segment

☐ JSP Document (XML Syntax)

Description:

10. MODIFY THE FILE

[index.jsp:](#)

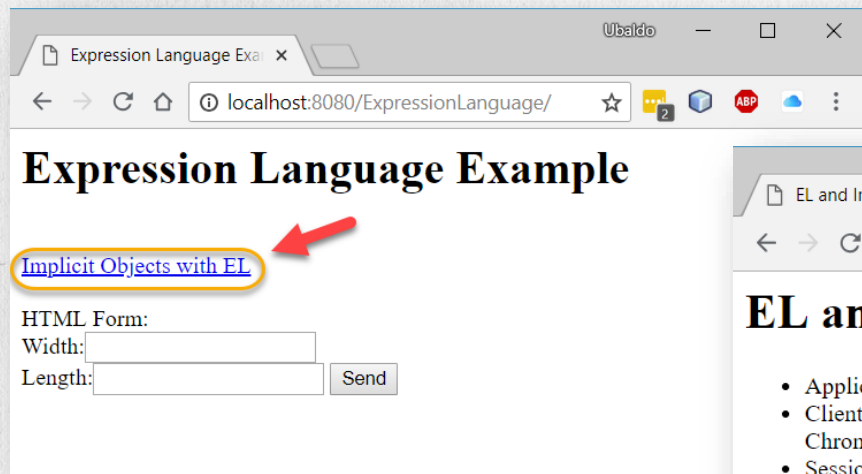
Click to download

```
<html>
  <head>
    <meta charset="UTF-8">
    <title>Expression Language Example</title>
  </head>
  <body>
    <h1>Expression Language Example</h1>
    <br>
    <a href="implicitVariables.jsp?user=john">Implicit Objects with EL</a>
    <br>
    <br>

    <!--enter the JSP that accesses the JavaBean -->
    HTML Form:
    <br>
    <form name="form1" action="javaBeanJsp.jsp">
      Width:<input type="text" name="width" />
      <br>
      Length:<input type="text" name="length" />
      <input type="submit" value="Send" />
    </form>

  </body>
</html>
```


11. EXECUTE THE PROJECT



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11. EXECUTE THE PROJECT



Expression Language Example

[Implicit Objects with EL](#)

HTML Form:

Width:

Length:

Access to the JavaBean

Width value: 6
Length value: 3
Area value: 18
Area calculation: 18

[Return to index](#)

EXERCISE CONCLUSION

With this exercise we have put into practice the use of Expression Language, and we also saw how we can combine the concept of JavaBeans and EL to more easily access the properties of our JavaBeans from the JSPs. This will greatly simplify the syntax of the JSPs.



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