

# JAVASERVER FACES COURSE

## EXERCISE

### FACELETS IN JSF

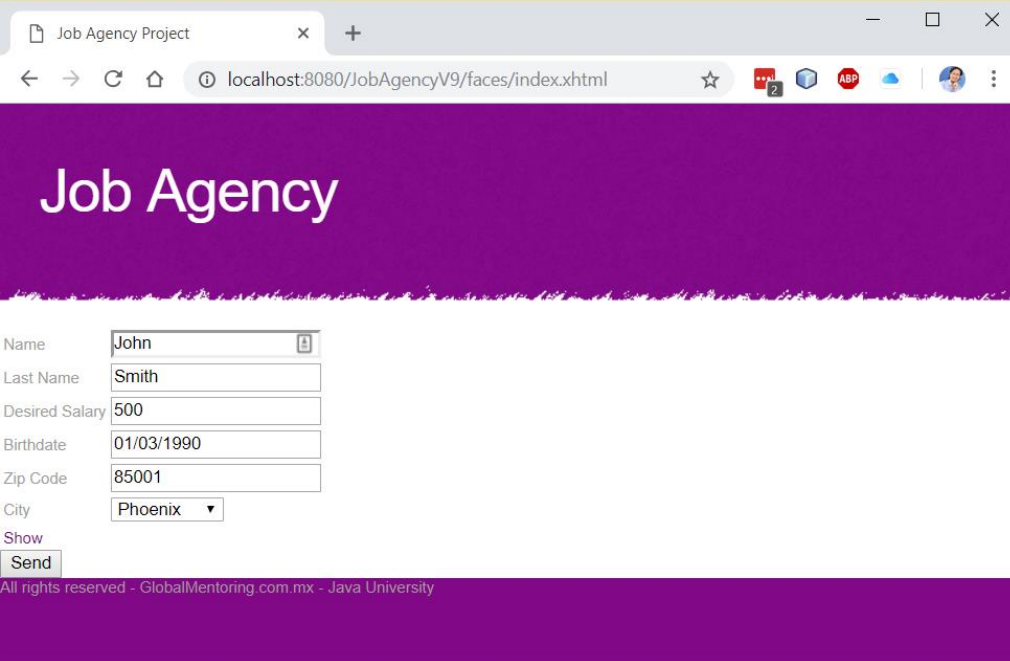


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# EXERCISE OBJECTIVE

The objective of this exercise is to implement Facelets technology, which is the presentation technology that replaces the JSPs when we use JSF. The result will be similar to the following figure:



The screenshot shows a web browser window with the title 'Job Agency Project'. The address bar displays 'localhost:8080/JobAgencyV9/faces/index.xhtml'. The page has a purple header with the text 'Job Agency'. Below the header is a registration form with the following fields:

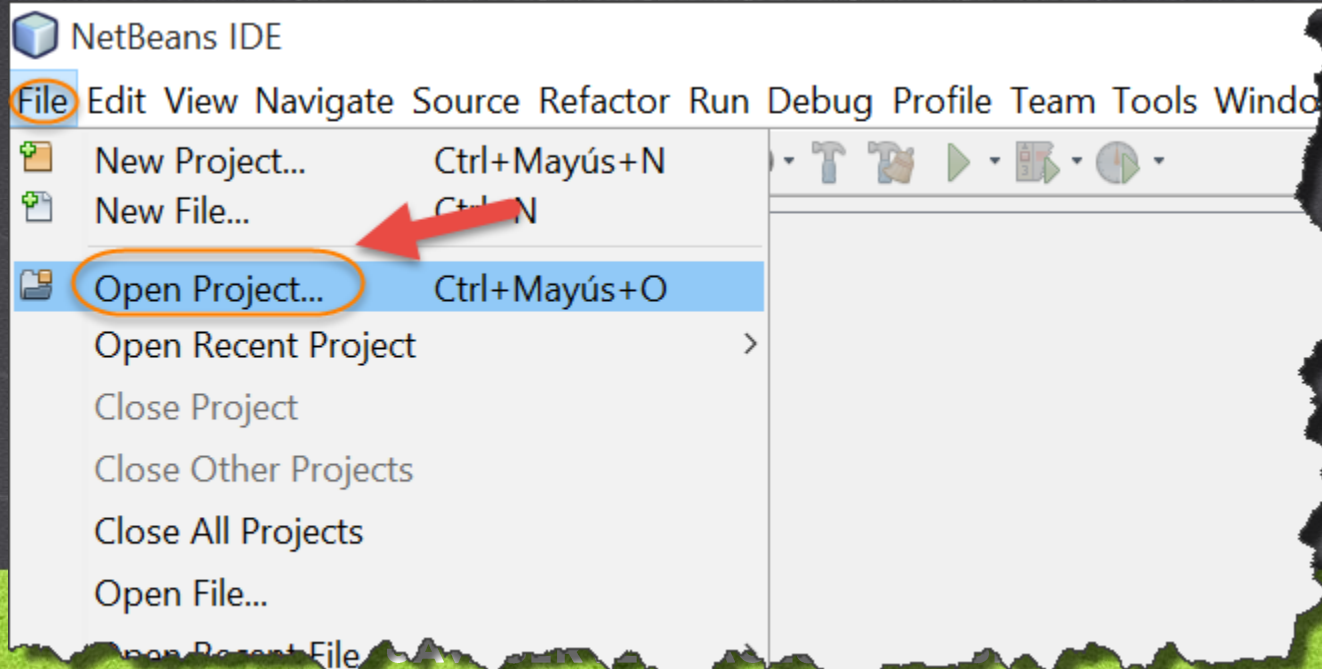
Name	<input type="text" value="John"/>
Last Name	<input type="text" value="Smith"/>
Desired Salary	<input type="text" value="500"/>
Birthdate	<input type="text" value="01/03/1990"/>
Zip Code	<input type="text" value="85001"/>
City	<input type="text" value="Phoenix"/>
Show	<input type="button" value="Send"/>

At the bottom of the form, there is a footer that reads: 'All rights reserved - GlobalMentoring.com.mx - Java University'.



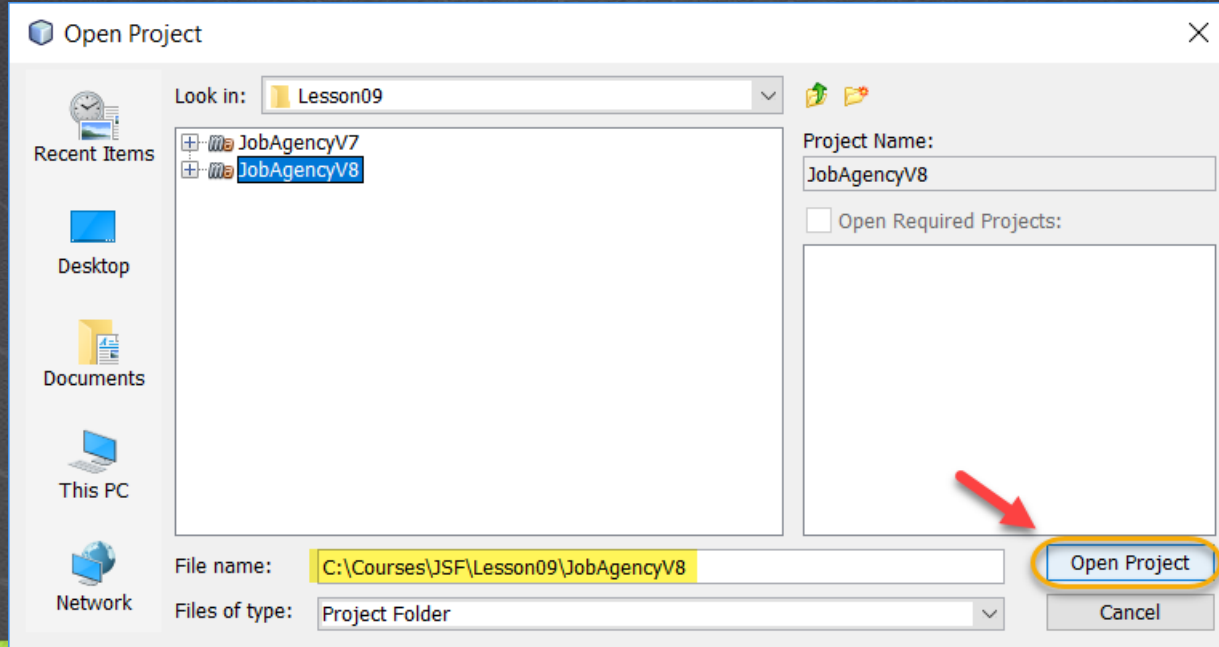
# 1. OPEN PROJECT

We open the JobAgencyV8 project, just in case we do not have it open:



# 1. OPEN PROJECT

We open the JobAgencyV8 project, just in case we do not have it open:

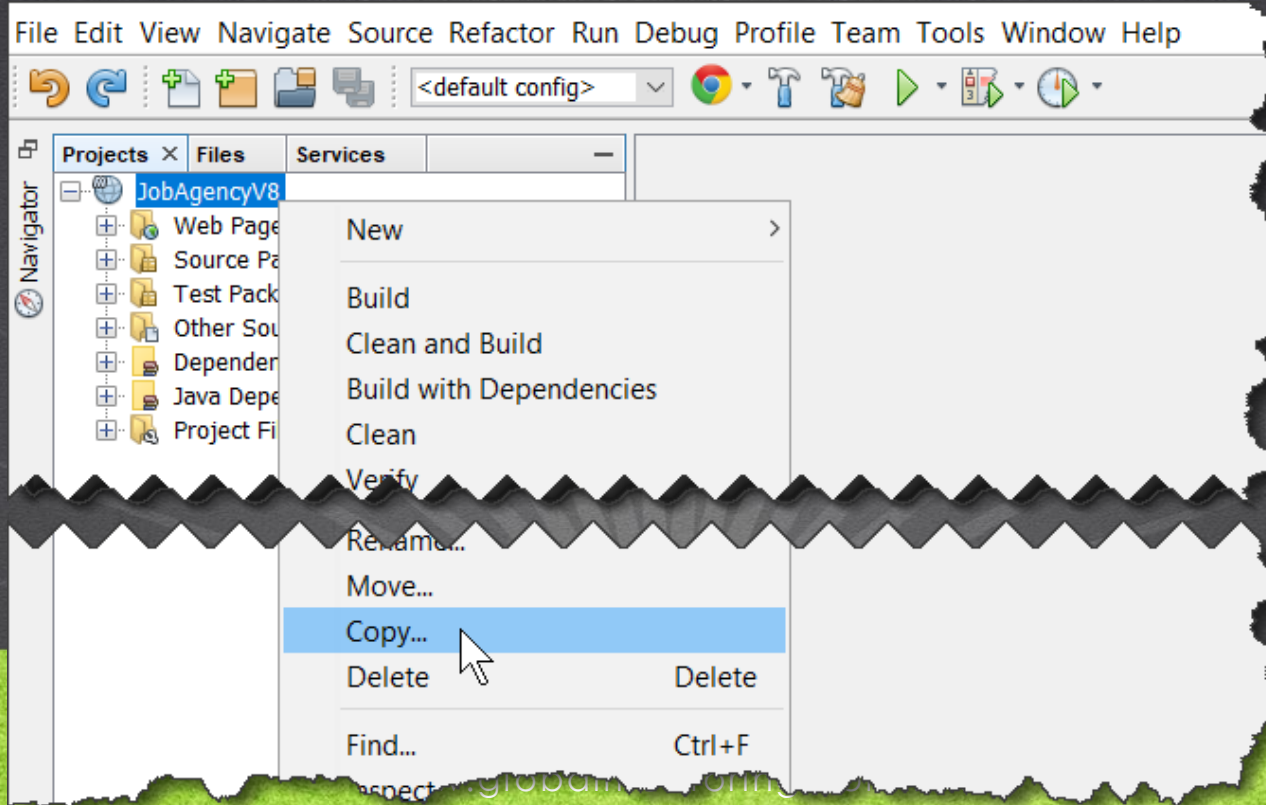


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## 2. COPY THE PROJECT

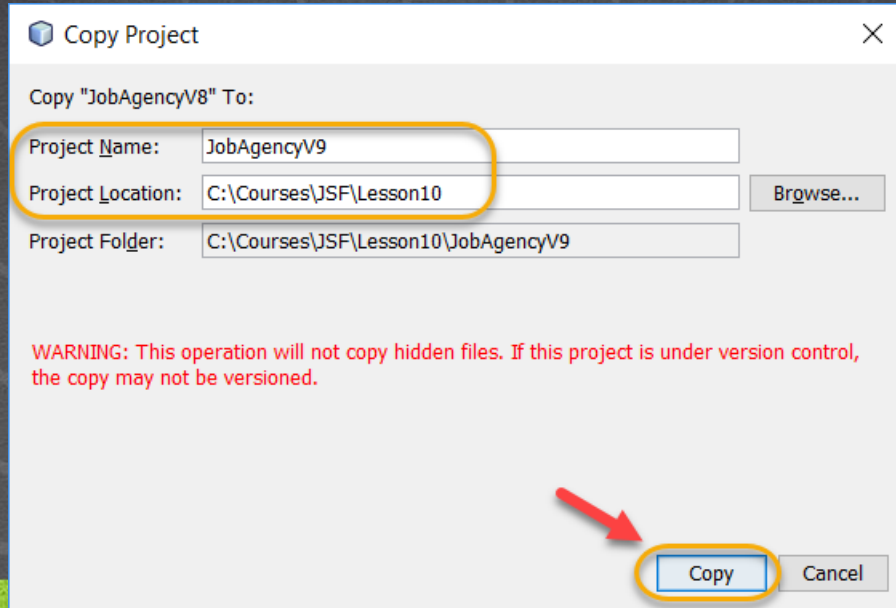
We copy the JobAgencyV8 project:





## 2. COPY THE PROJECT

We copy the JobAgencyV8 project and rename it to JobAgencyV9 and deposit it in the new route shown:

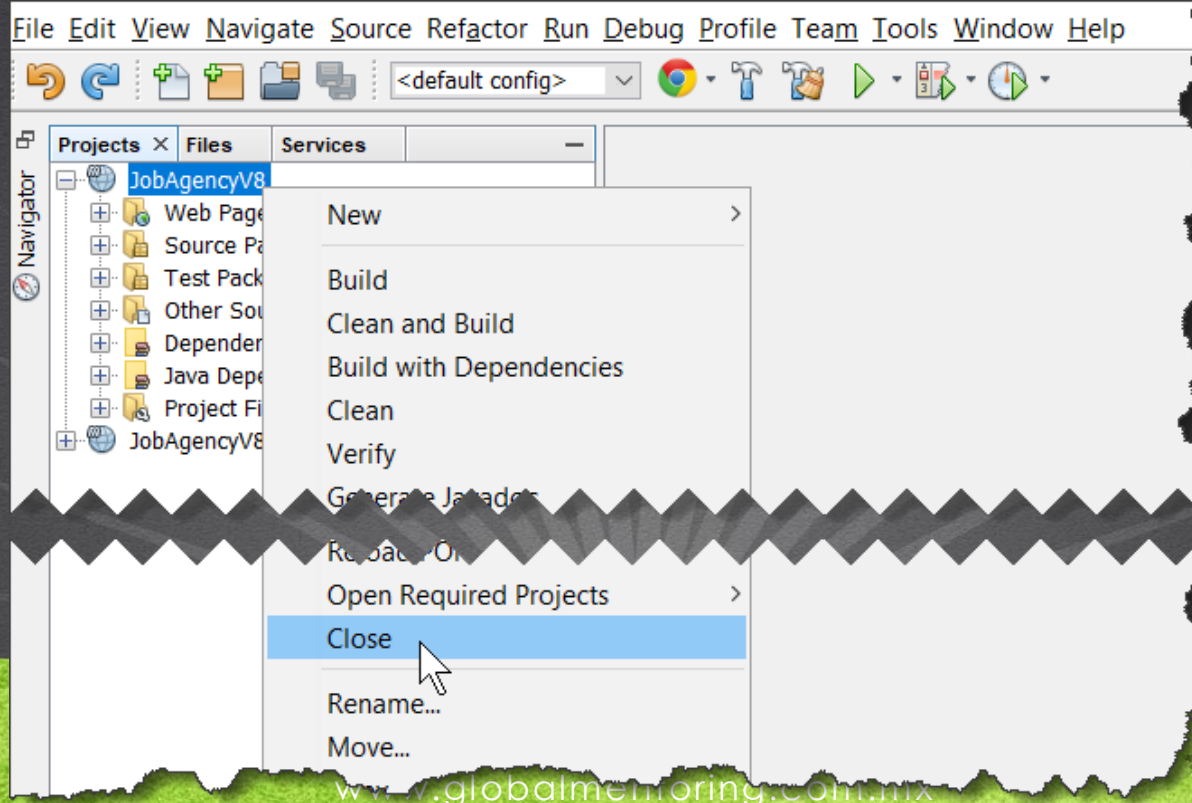


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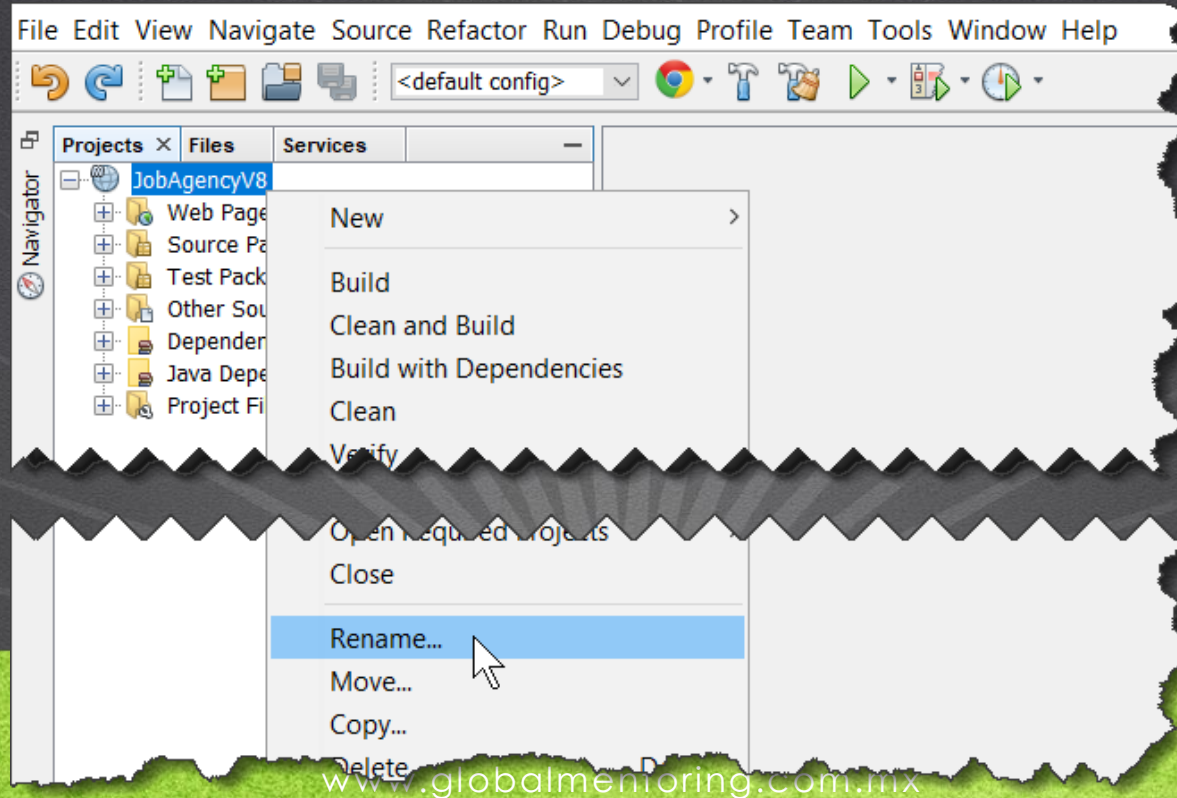
### 3. CLOSE THE PROJECT

We closed the previous project, and left only the new one open:



## 4. RENAME THE PROJECT

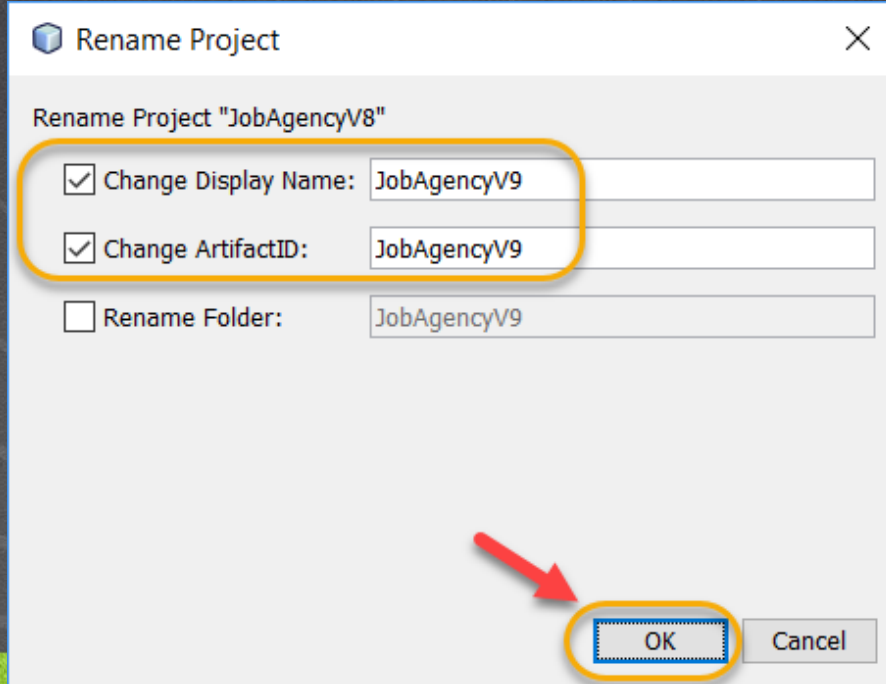
We changed the name of the project to JobAgencyV9:





## 4. RENAME THE PROJECT

We changed the name of the project to JobAgencyV9

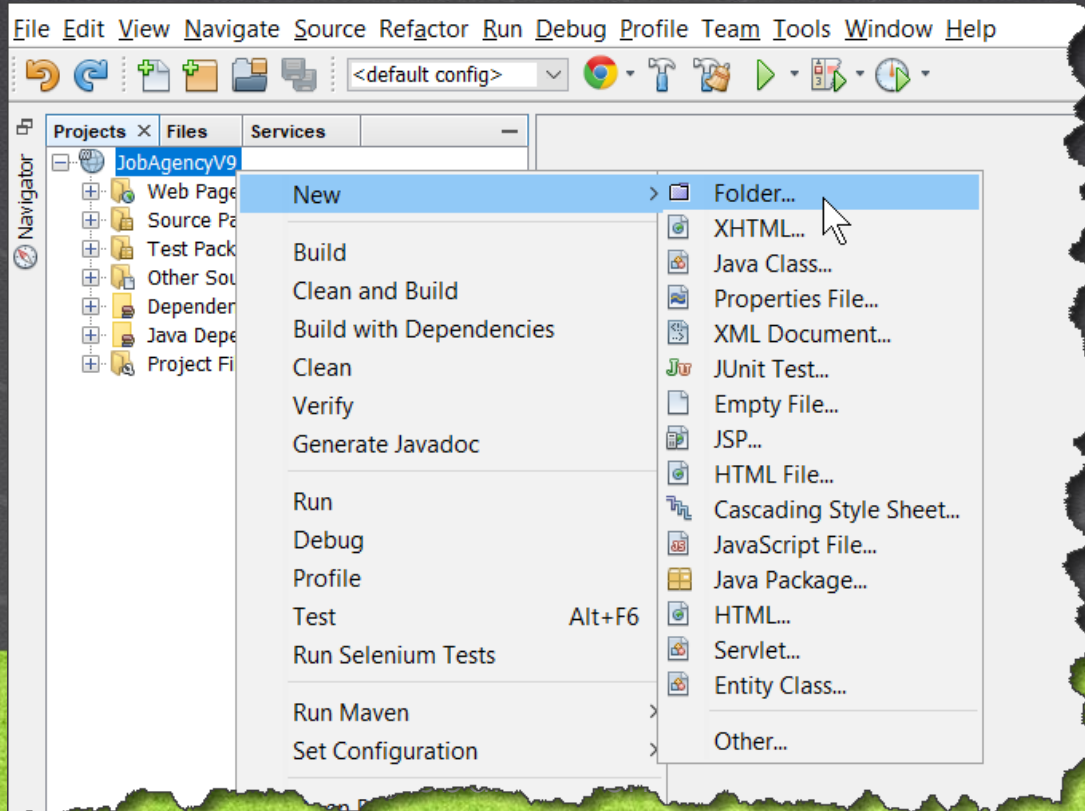


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# 5. CREATE A FOLDER

Create a folder called template within WEB-INF:



## 5. CREATE A FOLDER

Create a folder called template within WEB-INF:

**New Folder**

**Steps**

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

**Name and Location**

Folder Name:

Project:

Parent Folder:

Created Folder:

< Back    Next >    **Finish**    Cancel    Help

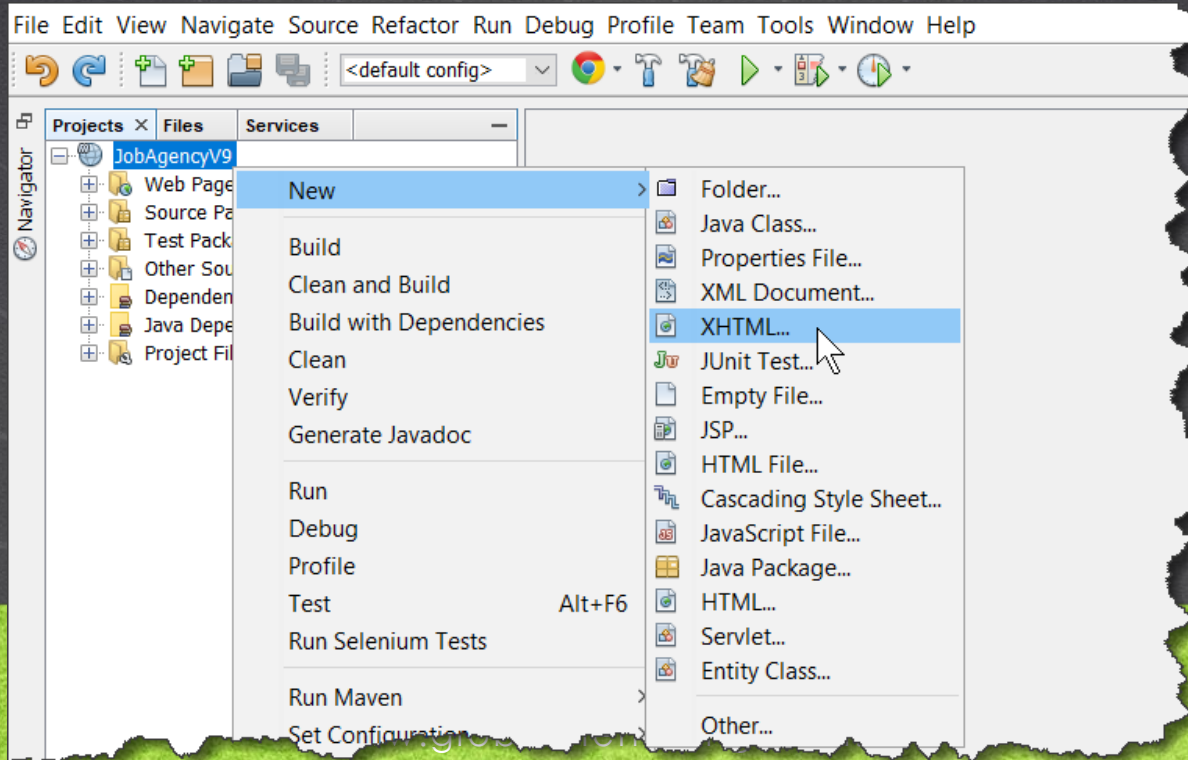
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## 6. CREATE AN XHTML FILE

We create the template.xhtml file that will be the template to use in JSF.



## 6. CREATE AN XHTML FILE

We create the template.xhtml file:

**New XHTML**

**Steps**

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

**Name and Location**

XHTML File Name:

Project:

Location:

Folder:

Created File:

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# 7. MODIFY THE FILE

[template.xhtml:](#)

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```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:ui="http://java.sun.com/jsf/facelets"
      xmlns:h="http://java.sun.com/jsf/html">

  <h:head>
    <h:outputStylesheet library="css" name="styles.css" />
    <title>Job Agency Project</title>
  </h:head>

  <h:body>
    <div id="wrapper">
      <div id="header-wrapper">
        <ui:insert name="top">
          <div id="header">
            <div id="logo">
              <h1>Job Agency</h1>
            </div>
          </div>
        </ui:insert>
      </div>
    </h:body>
```

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## 7. MODIFY THE FILE

[template.xhtml:](#)

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```
<div id="page">
  <ui:insert name="content">Content</ui:insert>
</div>

<div id="footer">
  <ui:insert name="bottom">All rights reserved - GlobalMentoring.com.mx - Java University</ui:insert>
</div>
</h:body>

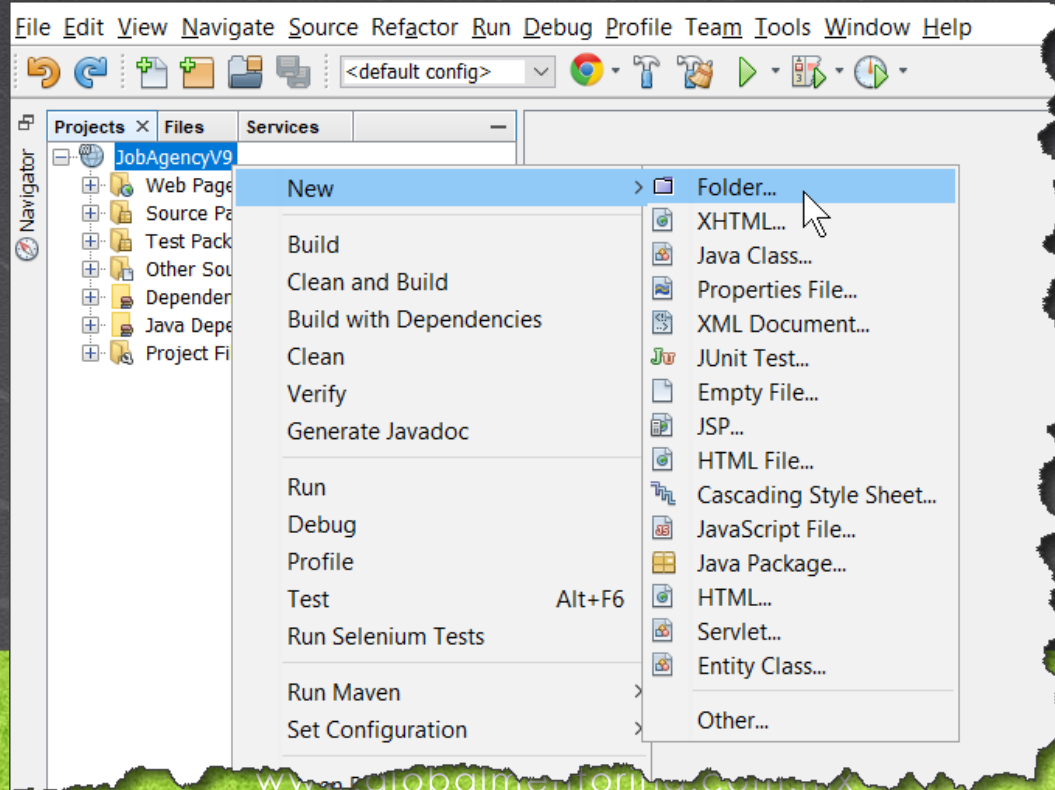
</html>
```

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## 8. CREATE A FOLDER

We create a folder called resources:



## 8. CREATE A FOLDER

We create a folder called resources:

**New Folder**

**Steps**

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

**Name and Location**

Folder Name:

Project:

Parent Folder:

Created Folder:

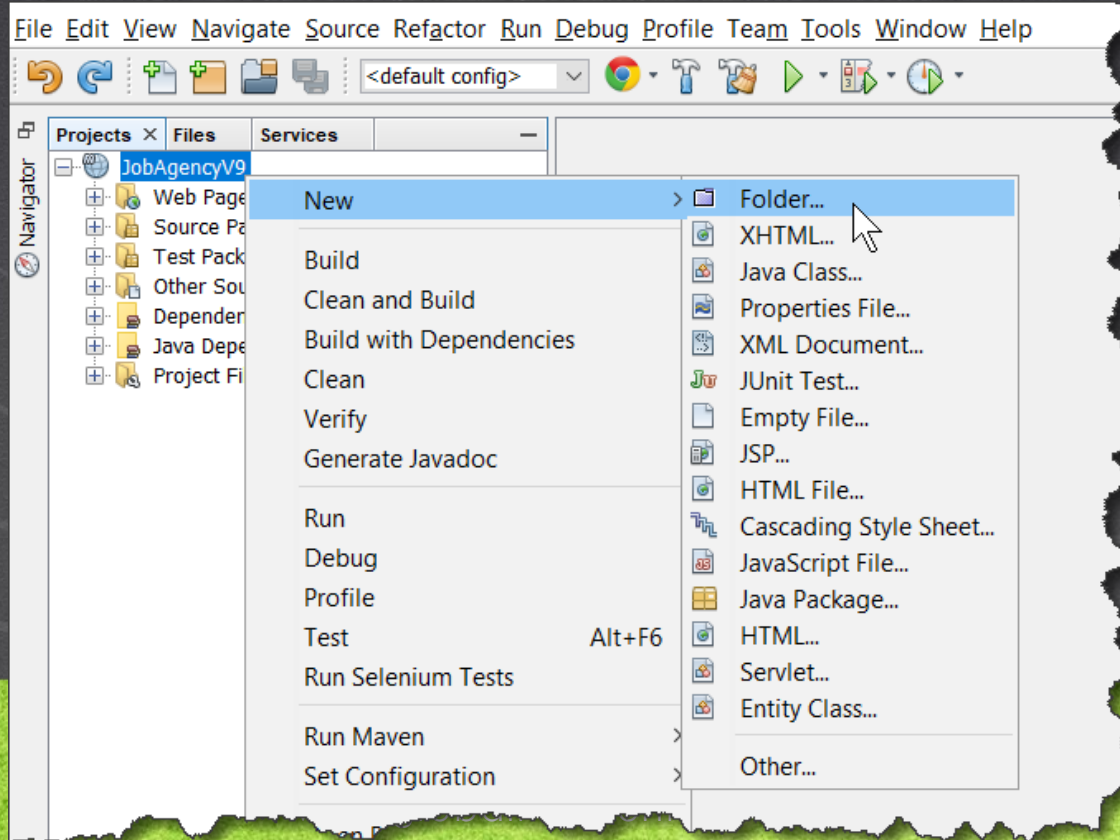
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# 9. CREATE A NEW FOLDER

We create a folder called css:



## 9. CREATE A NEW FOLDER

We create a folder called css:

**New Folder**

**Steps**

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

**Name and Location**

Folder Name:

Project:

Parent Folder:

Created Folder:

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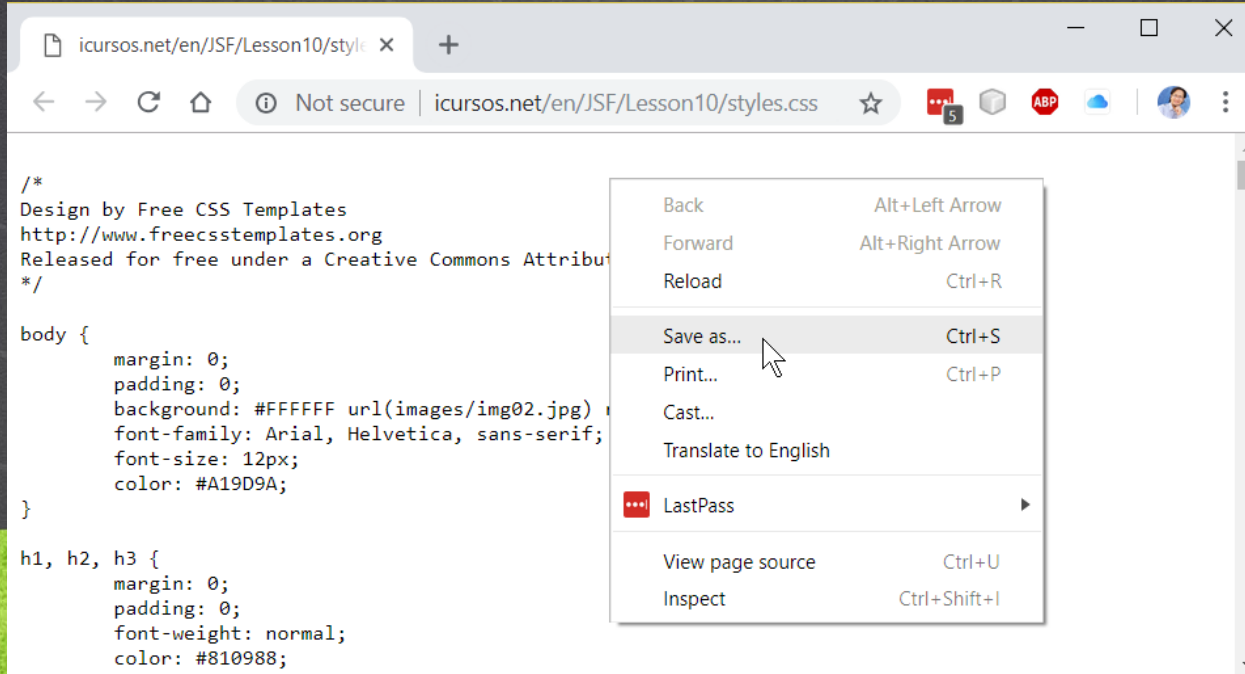
[www.globalmentoring.com.mx](http://www.globalmentoring.com.mx)

# 10. DOWNLOAD CSS FILE

Download the styles.css file:

<http://icursos.net/en/JSF/Lesson10/styles.css>

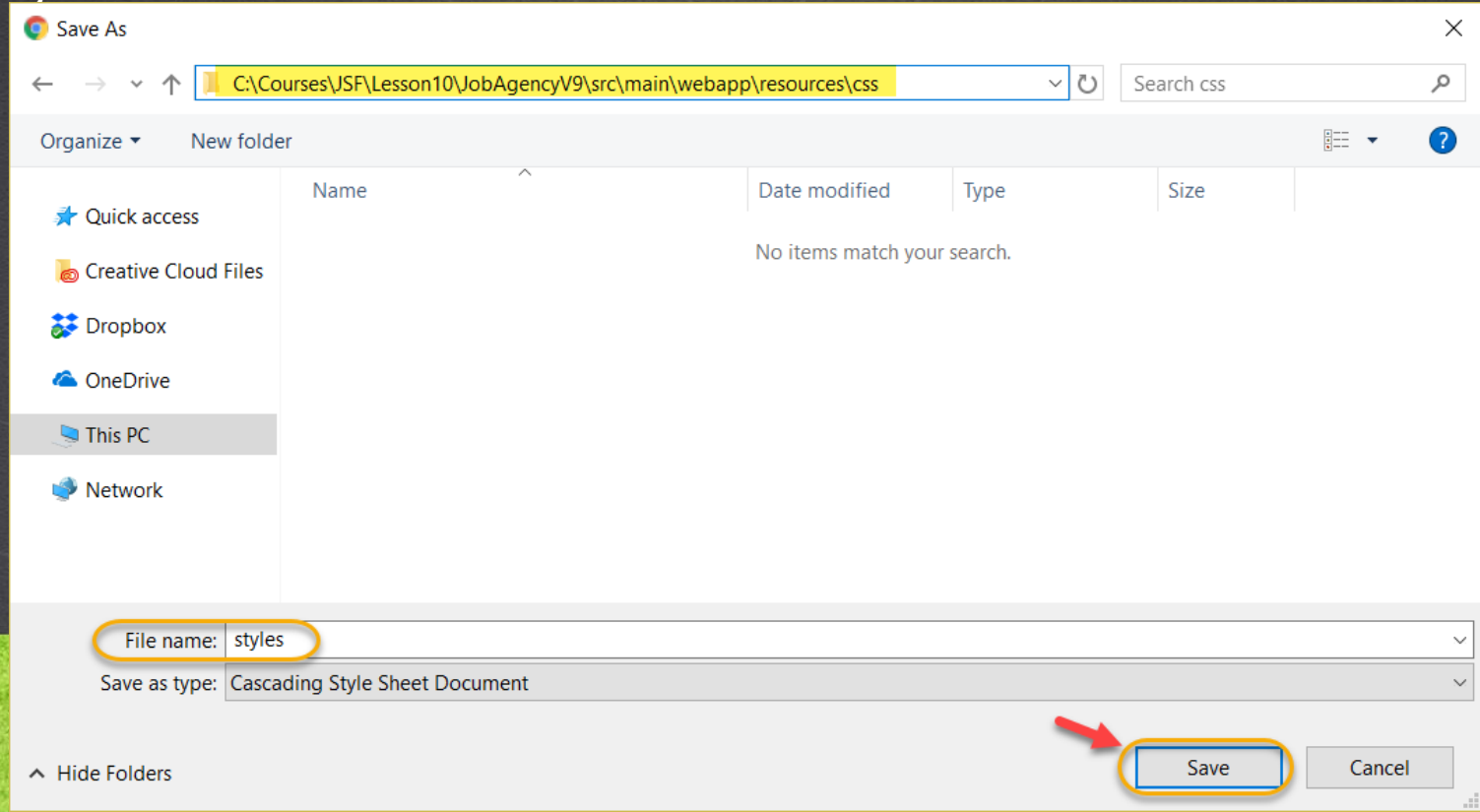
We save the file in the css folder created in the project:





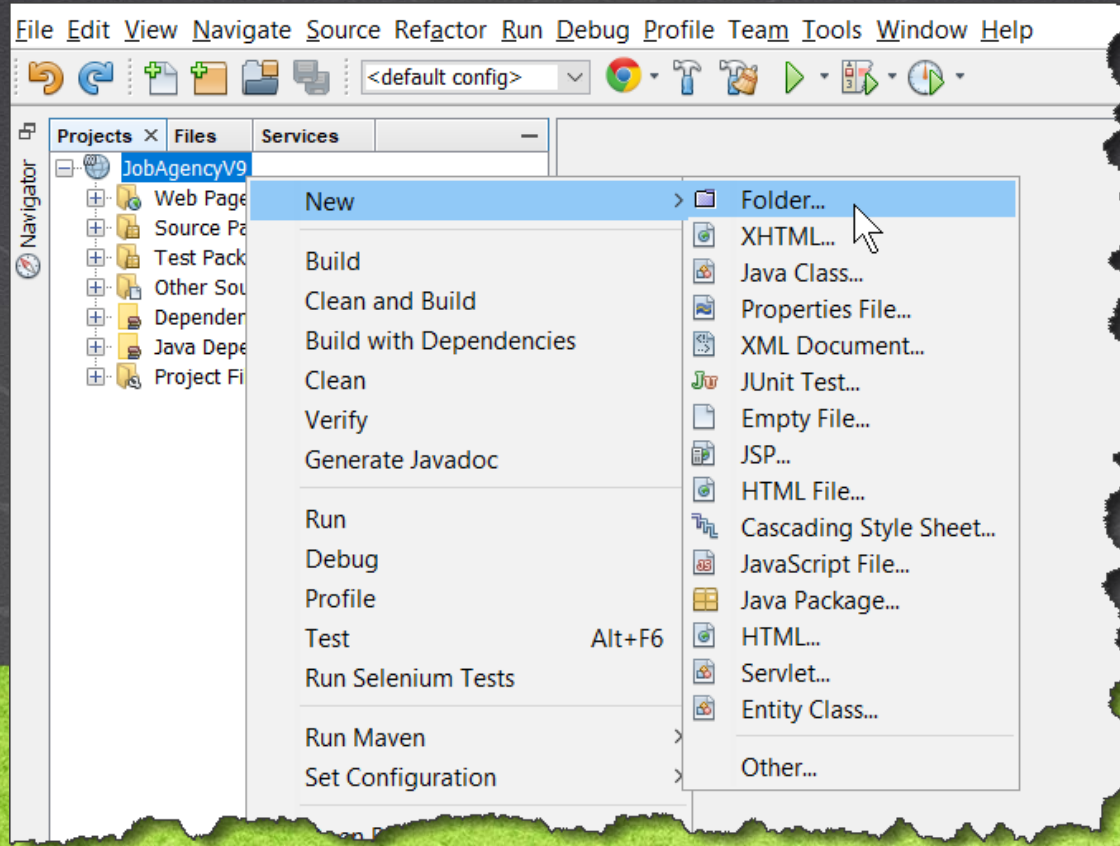
# 10. DOWNLOAD CSS FILE

We save the styles.css file in the path shown, or according to the path where we have our project:



# 11. CREATE A FOLDER

We create a folder called images:



# 11. CREATE A FOLDER

We create a folder called images:

**New Folder**

**Steps**

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

**Name and Location**

Folder Name:

Project:

Parent Folder:

Created Folder:

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## 12. DOWNLOAD IMAGES

We download two images and save them in the newly created images folder:

<http://icursos.net/en/JSF/Lesson10/img01.jpg>

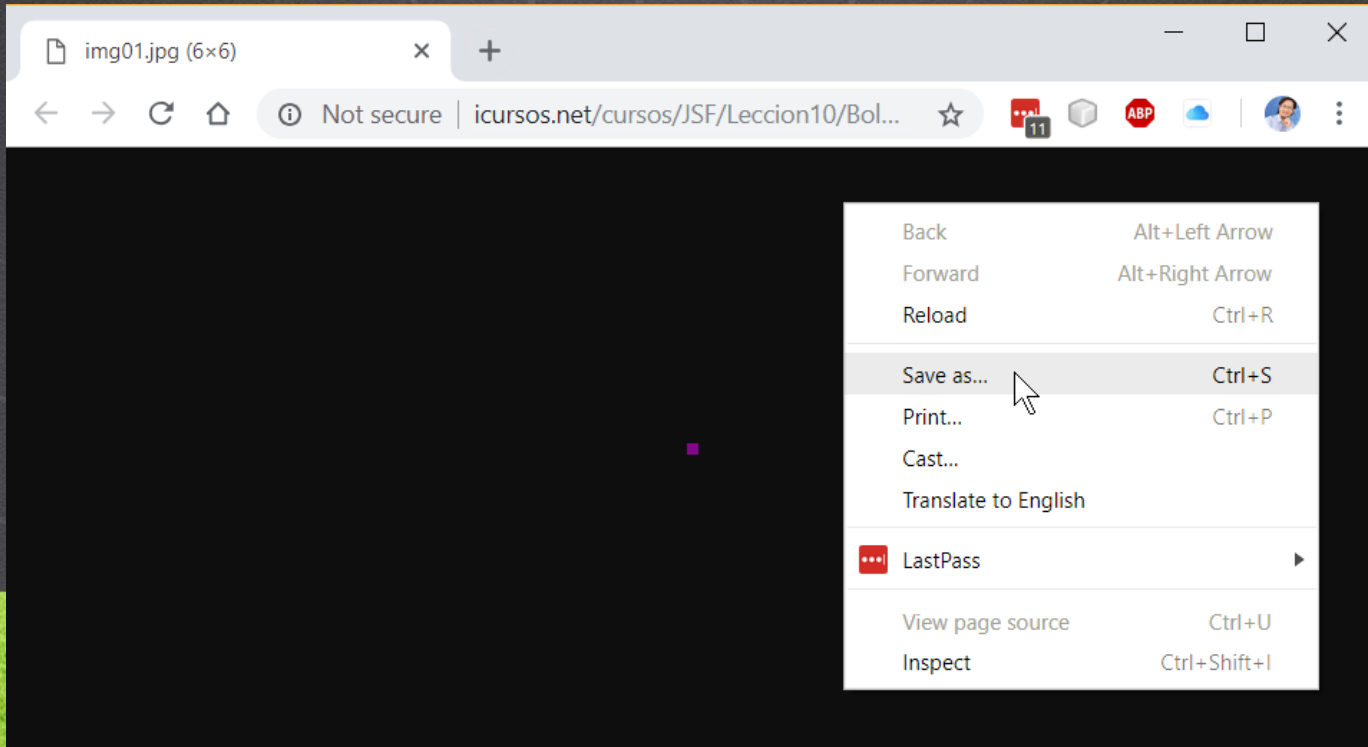
<http://icursos.net/en/JSF/Lesson10/img02.jpg>

We save both images as follows:

# 12. DOWNLOAD IMAGES

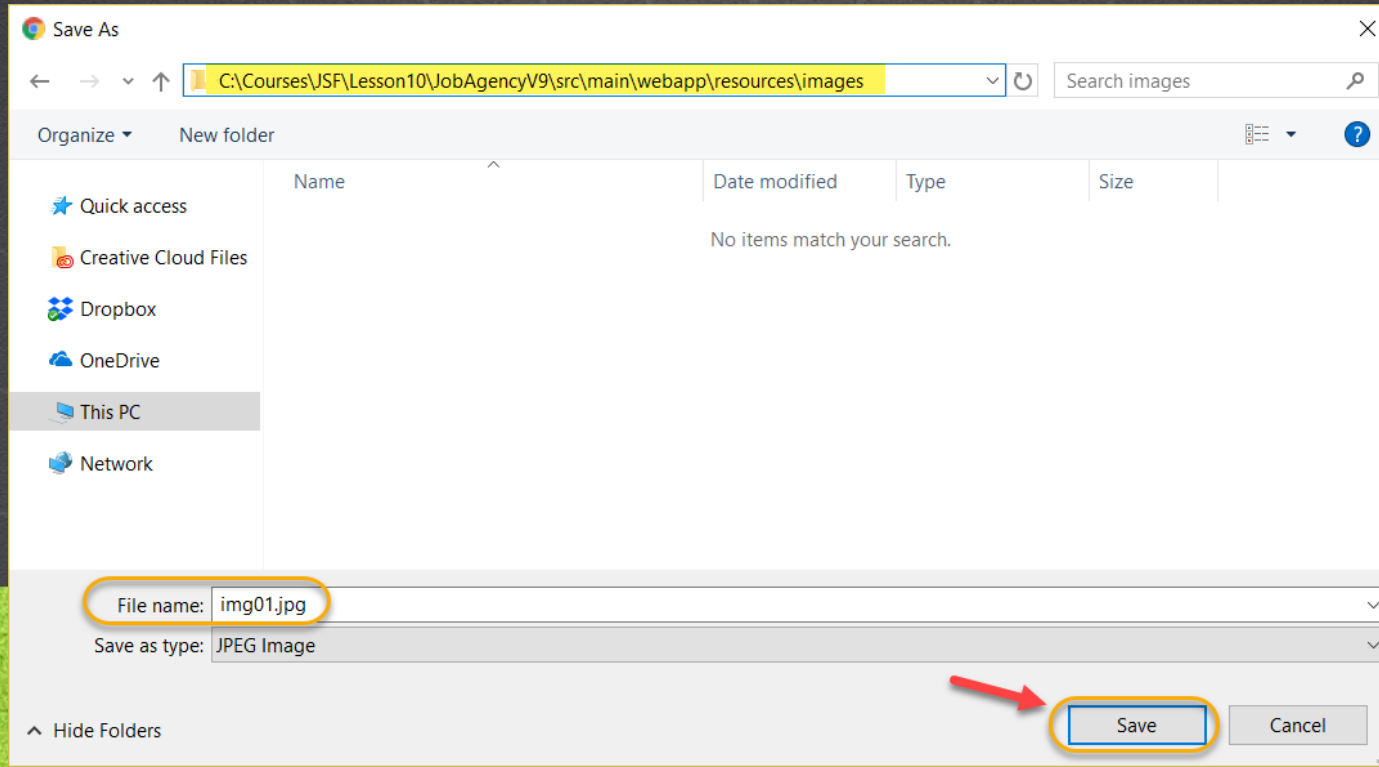
We download the image img01.jpg :

<http://icursos.net/en/JSF/Lesson10/img01.jpg>



## 12. DOWNLOAD IMAGES

We save the file img01.jpg in the path shown, or according to the path where we have our project:

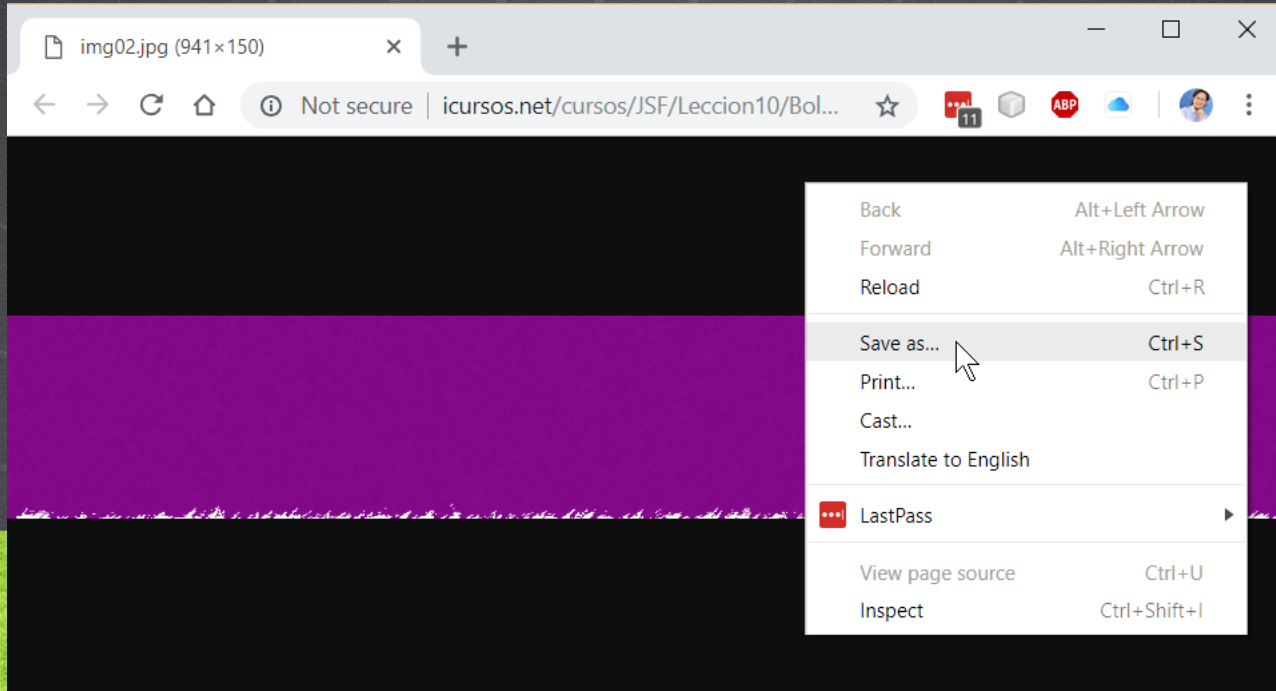




# 12. DOWNLOAD IMAGES

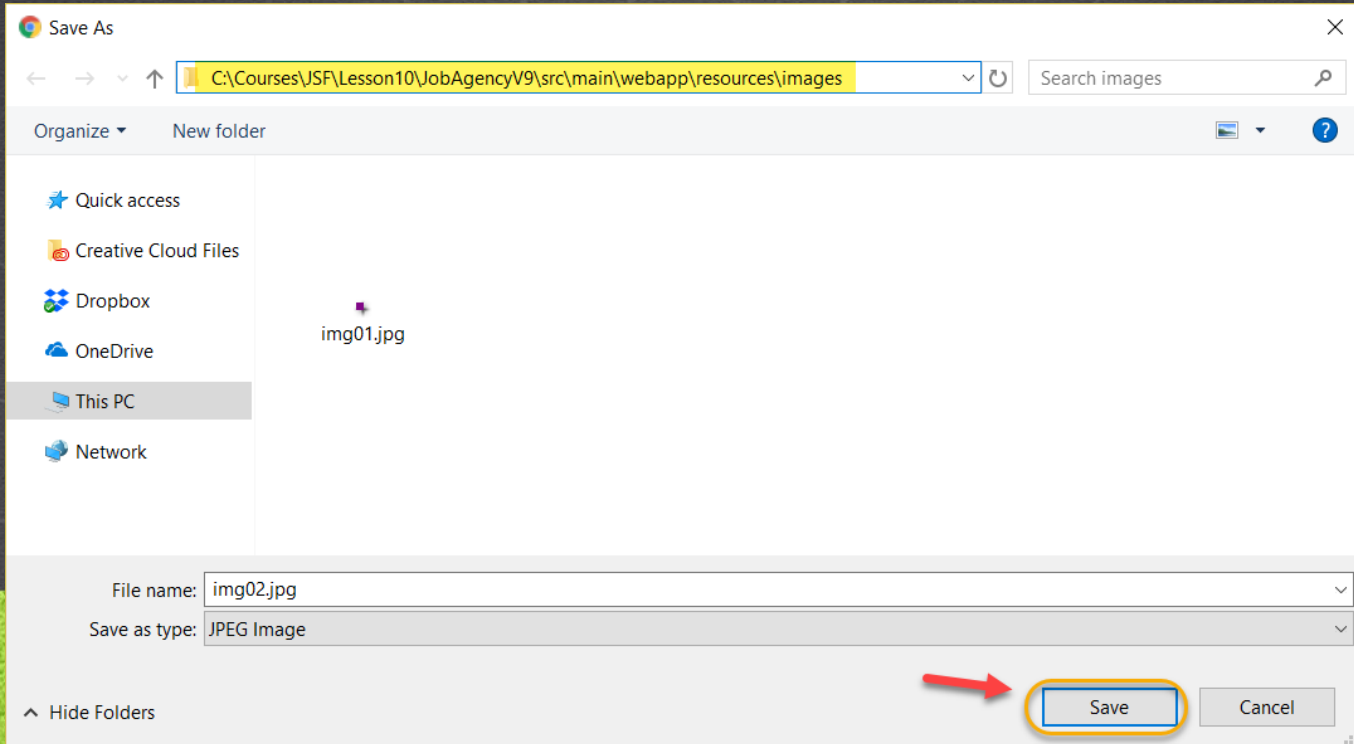
We download the image img02.jpg:

<http://icursos.net/en/JSF/Lesson10/img02.jpg>



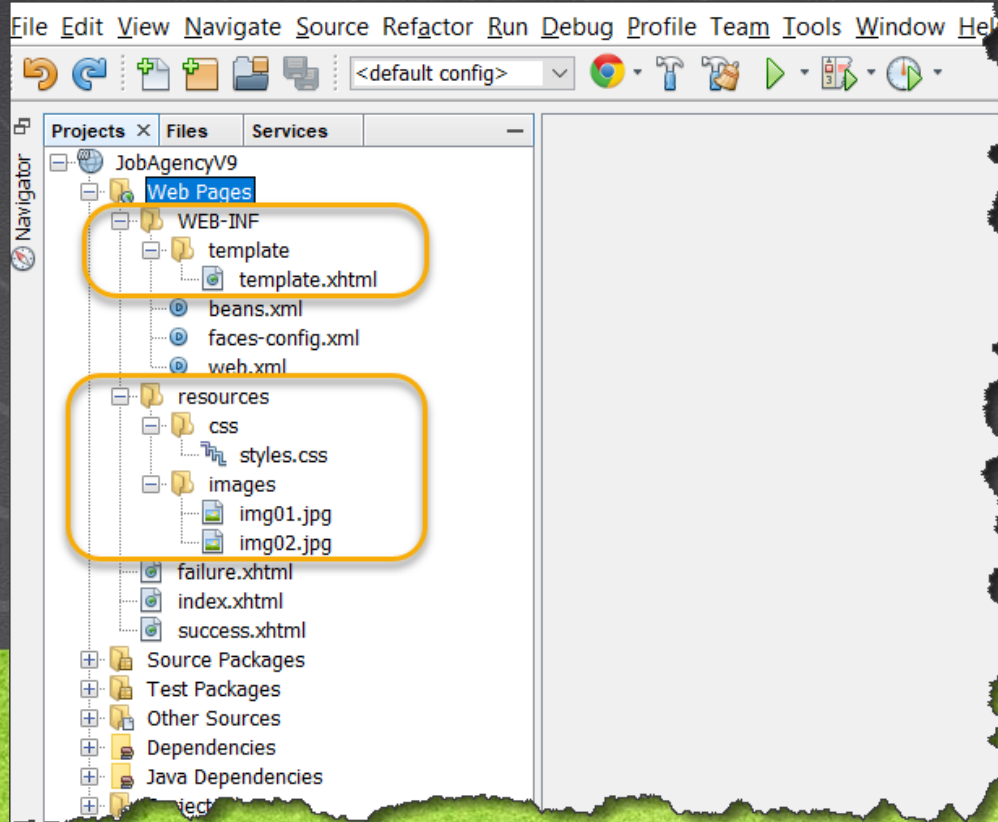
## 12. DOWNLOAD IMAGES

We save the file img02.jpg in the path shown, or according to the path where we have our project:



# 13. STRUCTURE REVISION

After the changes made the project has the following structure:





# 14. MODIFY THE XHTML FILE

We modify the index.xhtml file as follows:

Immediately after the <h: body> tag insert the following :

```
<ui:composition xmlns:ui="http://java.sun.com/jsf/facelets"  
    template="./WEB-INF/template/template.xhtml">  
    <ui:define name="content">
```

And close these tags after the end tag of the form </ h: form> and before the end tag of </ body>:

```
    </ui:define>  
</ui:composition>
```

# 14. MODIFY THE FILE

[index.xhtml:](#)

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```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml"
      xmlns:h="http://java.sun.com/jsf/html"
      xmlns:f="http://xmlns.jcp.org/jsf/core">
  <h:head>
    <title>Job Agency V7</title>
  </h:head>
  <h:body>
    <ui:composition xmlns:ui="http://java.sun.com/jsf/facelets"
                  template="./WEB-INF/template/template.xhtml">
      <ui:define name="content">
        <h:form id="vacantForm">
          <h:messages globalOnly="true" ></h:messages>
          <table>
            <tr>
              <td><h:outputLabel for="name" value="#{msgs['vacantForm.name']}" /></td>
              <td><h:inputText id="name" required="true" value="#{candidate.name}" /></td>
              <td><h:message for="name" /></td>
            </tr>
            <tr>
              <td><h:outputLabel for="lastName" value="#{msgs['vacantForm.lastName']}" /></td>
              <td><h:inputText id="lastName" required="true" value="#{candidate.lastName}" /></td>
              <td><h:message for="lastName" /></td>
            </tr>
          </table>
        </h:form>
      </ui:define>
    </ui:composition>
  </h:body>
</html>
```

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# 14. MODIFY THE FILE

[index.xhtml:](#)

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```
<tr>
  <td><h:outputLabel for="desiredSalary" value="#{msgs['vacantForm.desiredSalary']}" /></td>
  <td><h:inputText id="desiredSalary" required="true"
    value="#{candidate.desiredSalary}">
    <f:validateLongRange minimum="500" maximum="5000"/>
  </h:inputText></td>
  <td><h:message for="desiredSalary" /></td>
</tr>
<tr>
  <td><h:outputLabel for="birthdate" value="#{msgs['vacantForm.birthdate']}" /></td>
  <td><h:inputText id="birthdate" required="true"
    value="#{candidate.birthdate}">
    <f:convertDateTime pattern="MM/dd/yyyy" />
  </h:inputText></td>
  <td><h:message for="birthdate" /></td>
</tr>
<tr>
  <td><h:outputLabel for="zipCode" value="#{msgs['vacantForm.zipCode']}" /></td>
  <td><h:inputText id="zipCode" immediate="true"
    onChange="this.form.submit()" required="true"
    value="#{candidate.zipCode}"
    valueChangeListener="#{vacantForm.zipCodeListener}" >
    <f:convertNumber integerOnly="true" pattern="00000"/>
  </h:inputText>
  </td>
  <td><h:message for="zipCode" /></td>
</tr>
```



# 14. MODIFY THE FILE

[index.xhtml:](#)

Click to download

```
<tr>
  <td><h:outputLabel for="cityId" value="#{msgs['vacantForm.cityId']}" /></td>
  <td>
    <h:selectOneMenu id="cityId" required="true" value="#{candidate.cityId}">
      <f:selectItem itemLabel="#{msgs['vacantForm.select']}" itemValue="" />
      <f:selectItems value="#{cityHelper.selectItems}" />
    </h:selectOneMenu>
  </td>
  <td><h:message for="cityId" /></td>
</tr>
</table>
<table>
  <tr>
    <td>
      <h:commandLink actionListener="#{vacantForm.hideComment}"
        immediate="true" rendered="#{!vacantForm.commentSent}"
        value="#{msgs['vacantForm.show']}" />
      <h:commandLink actionListener="#{vacantForm.hideComment}"
        immediate="true" rendered="#{vacantForm.commentSent}"
        value="#{msgs['vacantForm.hide']}" />
    </td>
  </tr>
</table>
```

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# 14. MODIFY THE FILE

[index.xhtml:](#)

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```
<h:panelGroup rendered="#{vacantForm.commentSent}">
  <table>
    <tr>
      <td><h:outputLabel for="comment" value="#{msgs['vacantForm.comment']}" /></td>
    </tr>
    <tr>
      <td><h:inputTextarea id="comment" cols="50" rows="10" value="#{candidate.comment}" /></td>
    </tr>
  </table>
</h:panelGroup>
<h:commandButton action="#{vacantForm.send}" value="#{msgs['vacantForm.send']}" />
</h:form>
</ui:define>
</ui:composition>

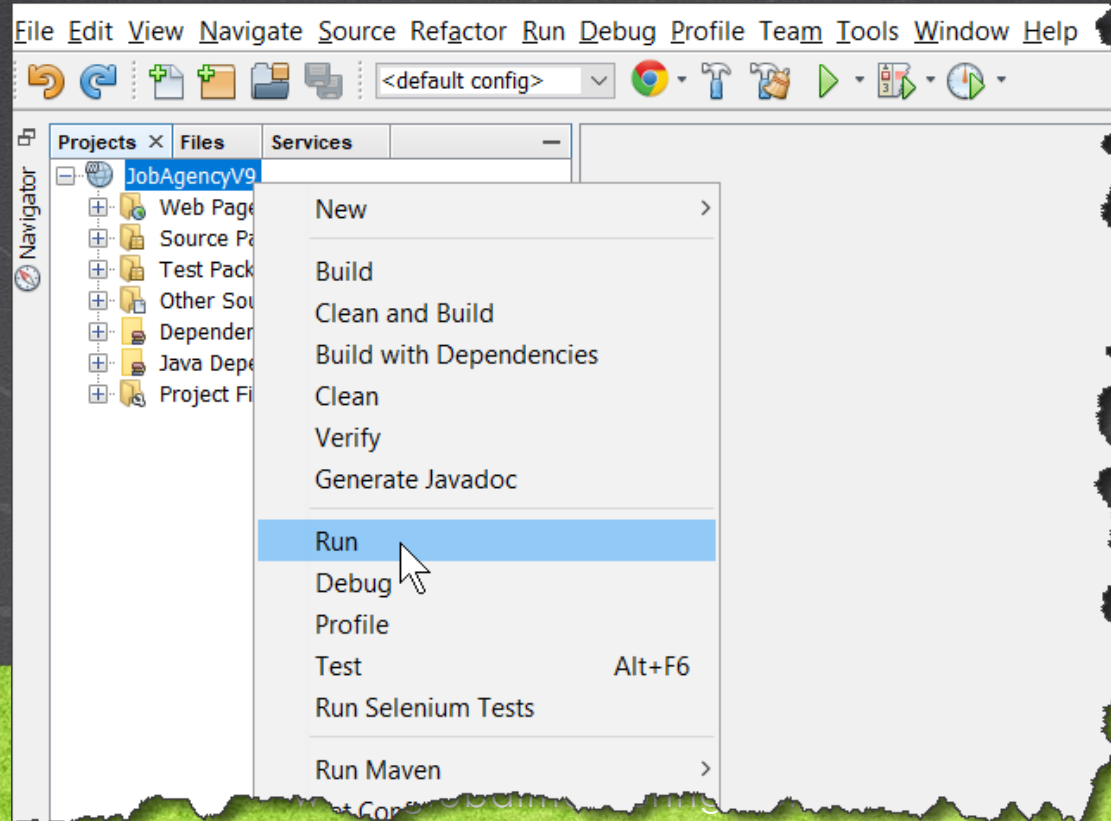
</h:body>
</html>
```

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# 15. EXECUTE THE PROJECT

Execute the Project:





# 15. EXECUTE THE PROJECT

We execute the project. The result is similar to the following:

Job Agency Project

localhost:8080/JobAgencyV9/faces/index.xhtml

## Job Agency

Name:

Last Name:

Desired Salary:

Birthdate:

Zip Code:

City:

Show

Send

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# EXERCISE CONCLUSION

With this exercise we have put into practice the use of Facelets templates in JSF.

As we saw in the exercise, in the file template.xhtml we define the sections of our web application (top, content, bottom), and later on our remaining pages all we have to do is overwrite the sections that we need to modify.

In the case of the index.xhtml page, we redefined the "content" section, but the top (header) and bottom (footer) sections were taken directly from the templates and it was necessary to modify those sections by the index.xhtml page .



**ONLINE COURSE**

# **JAVASERVER FACES (JSF)**

By: Ing. Ubaldo Acosta



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