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| **CE212 Lab 5: JSP and IntelliJ**  **Introduction**  The purpose of this lab is to gain some experience of JSP with IntelliJ IDEA. You will need to have Tomcat set up correctly so you should first work through the lab 4 script if you have not already done so.  **JSP and IntelliJ**  During web application development IDEA deploys its own version of Tomcat so you should **not** start up Tomcat outside IntelliJ. It uses the Tomcat binary files from your M: drive or the installation you performed last week, but temporarily changes the Tomcat settings so that it does not look for files inside the tomcat folder. (If you wish to deploy an application developed on IntelliJ so that it can be run outside IntelliJ some files need to be copied to the tomcat folder; details of how this should be done will be provided with assignment 2.)  We will start by working through the hotel booking example from part 3 of the lecture slides with IntelliJ. Before creating a project we need to inform IntelliJ of the location of the Tomcat installation, so start IntelliJ and open an existing project. Select **File-Settings** and from **Build, Execution, Deployment** select **Application Servers**. If Tomcat 9 appears in the left-hand column this has already been set up so you can just click **OK**. Otherwise, click on the + sign next to **Add** and select **Tomcat server** from the drop-down menu. Check that both the home and base directories are set to be your tomcat folder then then click **OK**.  Create a new **Java Enterprise** project, making sure that **Web Application** is ticked. Give the project a name such as lab5. The source folder should be somewhere in your Idea Projects or CE212 folder (i.e. *not* in the tomcat folder).  You should now see the folders for the project.  The **lab5** folder should have subdirectories called **src** and **web**. Within the **web** folder there will be a file called **index.jsp** - this is the start page for the project. Replace its body contents (i.e. the material between <body> and </body>) with the following:  <h3 align="center">Welcome to the Hotel California</h3>  <form method="POST" action="BookHotel.jsp">  <p>Name: <input type="text" name="name" size="20"></p>  <p>How many nights:  <select size="1" name="nNights">  <option selected="">1</option>  <option>2</option>  <option>3</option>  </select>  </p>  <p><input type="submit" value="Submit" name="B1"></p>  </form>  Make sure that you do ***not*** have Tomcat running outside IntelliJ. In the project view window right-click on **index.jsp** and select **Build Module 'lab5'** and then click **Run index.jsp**. The page should be displayed in a browser. Attempting to submit the form will of course have no effect since we have not yet written the target page.  We now need to create the Java Bean class that will be used by **BookHotel.jsp**. In the **src** folder create a new package called **beans** (by right-clicking on its icon) and within this package create a new Java class called **HotelBean**.  Edit the class so that its contents are:  package beans;  public class HotelBean {  String name;  int nNights;  public String getName()  { return name;  }  public void setName(String name)  { this.name = name;  }  public int getnNights()  { return nNights;  }  public void setnNights(int nNights)  { this.nNights = nNights;  }  }  We are now ready to write the second JSP file. Right-click on the **web** folder icon and select **New file** and supply the name **BookHotel.jsp**. The contents of this new file should look like:  <jsp:useBean id="roomBooking" scope="page" class="beans.HotelBean" />  <jsp:setProperty name="roomBooking" property="\*" />  <html>  <head><title>Bean test</title></head>  <body>  <h2> <%=roomBooking.getName()%>  to stay for  <%= roomBooking.getnNights() %> nights. </h2>  </body>  </html>  You need to terminate the old **index.jsp** session to make the **Run index.jsp** option available again. To do this click on the red **X** at the left-hand side of the bottom pane. Run the application again by once more right-clicking on **index.jsp** and selecting **Run index.jsp**. This time when you submit the form you should be taken to the second page.  **Exercise**  **JSP Temperature Conversion Table**  Repeat the JavaScript Fahrenheit / Celsius conversion table exercise, this time creating the table dynamically using JSP. |