

PROG2240: Java Web Tech

Assignment 1

Winter 2017

Assignment Type: **Pair Programming**
Due Date: Week 5 (**start of class**)

Before you begin:

- Read and study sample book applications from Chapters 2, 3 and 4.
 - Do the **Individual Exercise 4-1** on page 125 and demo to your partner.
 - Print **A1_CoverPage.pdf**
 - Page 3: Date and sign **Sections B and C** of your **Pair Programming (PP) Experience Log**.
 - **Note: Your team will get a 50% penalty if the PP Log is incomplete or missing.**
 - Page 4: Familiarize yourself with the **Marking Sheet**.
 - Follow the CP/CPA Handbook under eConestoga **IT Programs**: General Resources, **IT Standards** (*Use Java Conventions, as appropriate*)
 - *Note: 20% late penalty per day late will be applied for this course!*
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Important Notes:

- This is a pair programming assignment. Before you begin, you must do the following:
 - Assign the **driver** role (programmer) and the **observer** role (navigator). You must rotate the roles for each assignment.
 - Both of the team members must complete the **labs** and **individual exercises** required for this assignment.
- In addition to the **IT Standards**, all your **project and class names** must be prefixed with **XXYY**, where **XXYY** is your team initials in upper case letters.
 - *Hint:* Use the default code formatting provided by **NetBeans 8.1**.
- Keep your code and solution clean and free from clutter. Do not add unnecessary attributes to your HTML or JSP files
 - *Hint:* Use the HTML editor provided by **NetBeans 8.1**.

Background: In this assignment, you will use JSP pages to develop the presentation layer of a **Membership Registration** Web application. Use the Model 1 pattern (i.e., no servlets are created) to create a *prototype*. Use the HTML5 semantic elements to structure your HTML page. Apply the best practice of using external style sheets.

Task 1. NetBeans Preparation

- In **NetBeans 8.1**, create a new Java Web Application project named **XXYYClub**, where **XXYY** is your team initials in upper case letters.
 - **Important:** Select **Tomcat 8.x** and **Java EE 5**

Reminder: Backup and save all your JSP pages, Java classes and other files to your G: or USB drive. **Save often.**

Task 2. Add a Banner and Footer JSP pages

Your banner page must match the sample design layout shown in top area of Task 3 screenshot. *Hint: Study and reuse part of the **header.jsp**, **footer.jsp** and **main.css** from Murach's **musicStore** web app.*

- Under "Web Pages" folder, create new **styles** and **images** folders
 - Under the **styles** folder, find and add a sample style sheet
 - Under the **images** folder, add a new team logo.
 - Create your own team logo (**xyyy-icon.png**) for your XXYY Club.
 - *Hint: You can download free icons from <http://www.iconarchive.com/>*
 - Add a new JSP page named **XXYYBanner.jsp**.
 - Add a reference to your external style sheet
 - Add title to the page: **XXYY Computer Programming Club**
 - Display your team logo and club name
 - Add image and HTML5 header elements
 - *Hint: Include an image, level-1 heading and level-2 heading elements*
 - Add an HTML5 navigation bar element with 3 links:
 - **Home** to **XXYYIndex.jsp**,
 - **Register** to **XXYYRegister.jsp**
 - **Admin** to **XXYYAdmin.jsp** (not implemented in A1)
 - Add a new JSP page named **XXYYFooter.jsp**
 - Include team member names and copyright information

Task 3. Add the Main (XXYYIndex.jsp) JSP page

- Add a JSP page named **XXYYIndex.jsp**
- Include the **XXYYBanner.jsp** and **XXYYFooter.jsp**
 - Hint: Use a JSP include tag: `<jsp:include page="XXYYBanner.jsp" />`
- Add the template data to match the design layout including the title shown below.
 - Hint: Use *HTML5* section, heading and paragraph elements to display course and team information.
- Display the date and time the JSP page was rendered.
 - Hint: Use **Java code/scriptlet** to display the current date and time:
`<%= new java.util.Date() %>`



Task 4. Add a Register JSP page (**prototype**)

- Add a JSP page named **XXYYRegister.jsp**
- Add a title and follow the labels as shown in sample screenshot below.
 - *Note: Full name and email are required fields.*
- Include the **XXYYBanner.jsp** and **XXYYFooter.jsp**
 - Add an HTML5 **section** element
- Within the **section** element, add the HTML controls to match the design layout shown below.
 - Your HTML **<form>** tag must call the **XXYYDisplayMember.jsp** (see **Task 5 below**) using the HTTP **POST** method.
 - Use textbox widths of 100px, 200px or 300px, as appropriate.
 - *Hint: Use inline style. E.g., `style="width:100px"`*
 - IT Program values are: **CAD**, **CP**, **CPA**, **ITID**, **ITSS**, **MSD** and **Others**
 - Year values are: **1**, **2**, **3**, and **4**
 - Add submit (i.e., **Register Now!**) and reset buttons.

Note: **Server-side form validation is not part of this assignment.**

XXYY Computer Programming Club
IT@Conestoga

[Home](#) | [Register](#) | [Admin](#)

New Member Registration Form

Full Name:

Email:

Phone:

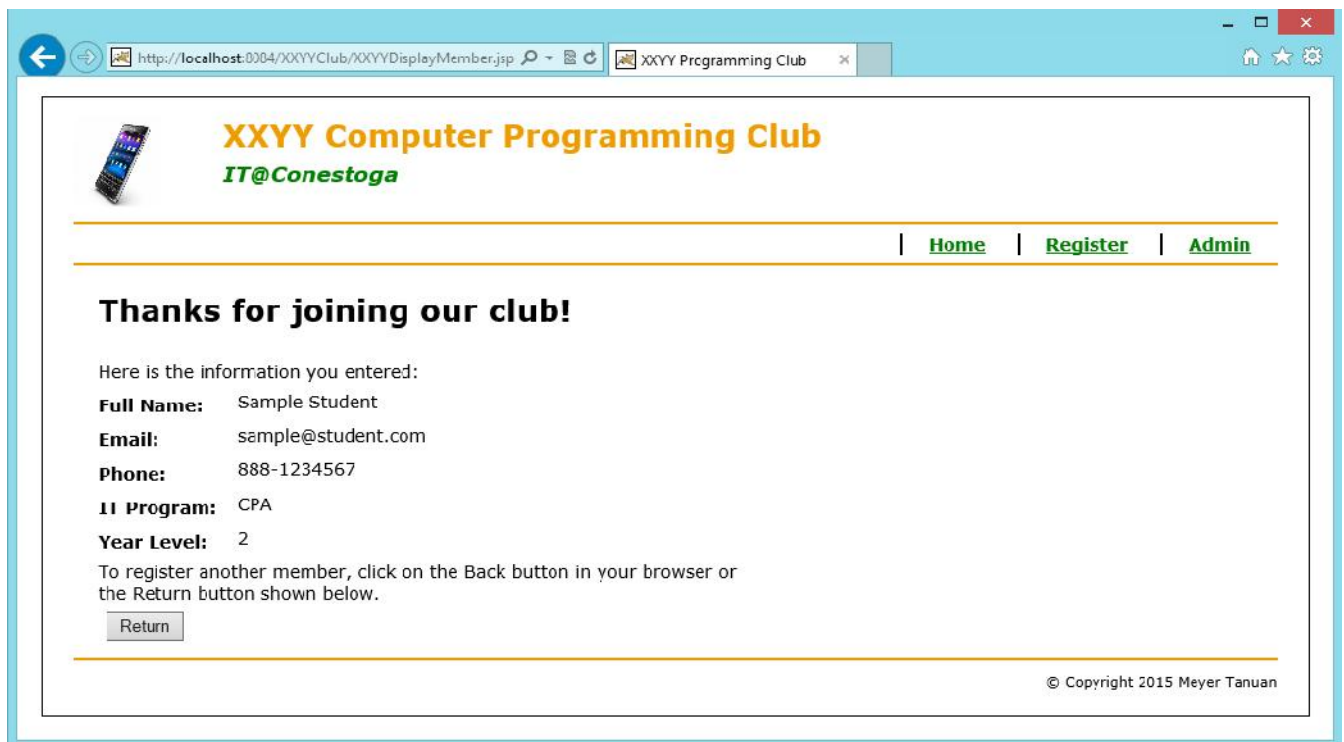
IT Program:

Year Level:

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Task 5. Add a Display Member JSP page (**prototype**)

- Add a JSP page named **XXYYDisplayMember.jsp**
- Include the **XXYYBanner.jsp** and **XXYYFooter.jsp**
- Add the template data to match the design layout shown below.
- Use **JSP Expression Language (EL)** to display the parameter values from the request object
 - E.g., `${param.fullname}`
 - Note: *fullname* is the parameter name for the input tag
- *Hint for the Return button:*
 - Add an HTML `<form>` tag to allow the user to return to the **XXYYRegister.jsp**.



Task 6. Test the Web Application

Test your Web application. *At a minimum*, be ready to demo the following:

- Home page: all the links
- Register a new member: Register and Reset buttons
- Display a member and Return button

Assignment Submissions

Important: You must submit your printouts (Cover Page and screenshots) and upload your solution (XXYYClub.zip). **Do not print your code.**

Sequence	Item
1	A printout of the A1_CoverPage.pdf (a total of 4 pages) with all the relevant sections filled in.
2	A printout of 3 sample screenshots similar to the above screenshots (with the title displayed). The screenshots should be large enough for marking (Use Alt-PrtSc to copy and paste screenshot to MS Word, one screenshot per page).
3	<p>Zip and upload your assignment solution XXYYClub.zip (where XXYY is your team initials in upper case letters) to your appropriate section's A1_Dropbox on eConestoga. Upload using the driver's eConestoga login.</p> <p>Note: This zip file must be ready to run on NetBeans 8.1 without modifications when unzipped to C:\murach in any Doon IT Lab. <i>Otherwise you will get 5% penalty per upload-related error.</i></p>
4	Demo your assignment solution on or before the due date. Both pair programming team members must be present to demo your assignment. The instructor will randomly decide who will demo your solution. <i>The instructor will also randomly ask any member to demo their individual exercises solution.</i>