

PROG2240: Java Web Tech

Assignment 1

Winter 2015

Due Dates:

Section 1: Monday, 2-Feb-2015, start of class

Section 3: Wednesday, 4-Feb-2015, start of class

Section 2: Thursday, 5-Feb-2015, 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. Sign and date **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.**
 - Familiarize yourself with the **A1 Marking Sheet**.
 - Follow the CP/CPA Handbook (Java Coding standards: pages 12 to 39 and 41)
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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 CP/CPA Assignment standards, all your **project and class names** must be prefixed with **XXYY**, where **XXYY** is your team initials in upper case letters. Use the default code formatting provided by NetBeans 8.x.

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

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: **CPA, CP, ITID, CAD, ITSS** 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.**

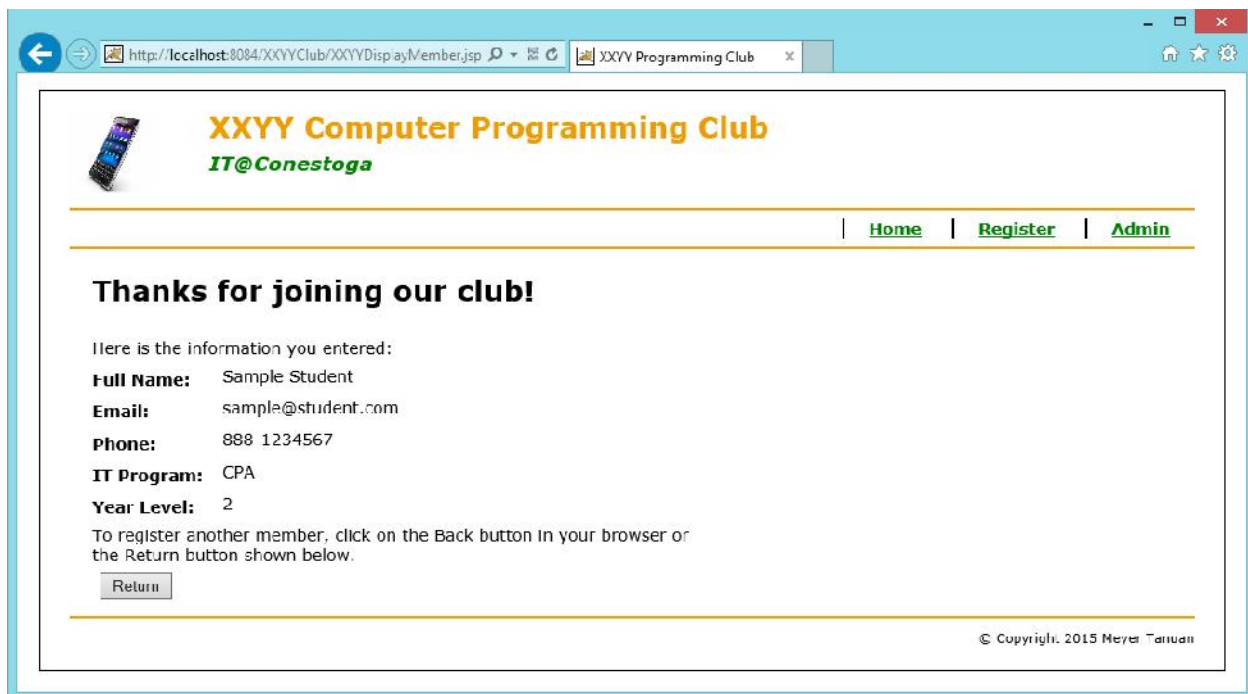
The screenshot shows a web browser window displaying the 'XXYY Computer Programming Club' registration page. The page has a green header with the club's name and logo. Below the header is a navigation bar with links for 'Home', 'Register', and 'Admin'. The main content area is titled 'New Member Registration Form' and contains the following fields and controls:

- Full Name:** A text input field with a red border.
- Email:** A text input field with a red border.
- Phone:** A text input field.
- IT Program:** A dropdown menu with 'CAD' selected.
- Year Level:** A dropdown menu with '1' selected.
- Buttons:** 'Register Now!' and 'Reset' buttons.

The footer of the page contains the copyright notice: '© Copyright 2015 Mcyer Tanuar'.

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 in the proper sequence.**

Sequence	Item
1	A printout of the CP/CPA Assignment Cover Page and Standards Marking Sheet with all the sections filled in.
2	A printout of the A1 Marking Sheet .
3	A printout of XXYYBanner.jsp and XXYYFooter.jsp code, where XXYY is your team initials in upper case letters.
4	A printout of XXYYIndex.jsp code.
5	A printout of XXYYRegister.jsp code.
6	A printout of XXDisplayMember.jsp code.
7	A printout of 3 sample screenshots similar to the above screenshots (with the title displayed).
8	A printout of Pair Programming Exercise Log with all the sections filled in. You will get a 50% penalty if this page is missing.
9	Demo your solution on or before the due date. Both pair programming team members must be present to demo. The instructor will randomly decide who will demo your solution.