

## Assignment # 2–Developing an enterprise app using Spring MVC and JPA

**Due Date:** Week 8

**Purpose:** By finishing this assignment you will practice to:

- Develop and code a Spring MVC app as an enterprise app
- Design and Implement MySQL database using JPA

**References:** Read the lecture slides week 2 – 6 and lab exercises. This material provides the necessary information you need to complete the exercises.

### Instructions and rules:

- This lab should be completed by every student **individually or in pairs**.
- Student pair can use pair programming approach to complete this assignment.  
<http://www.extremeprogramming.org/rules/pair.html>
- You will have to demonstrate your solution in a scheduled lab session and submitting the project **through the assignment drop box on e-centennial**. You must name your Eclipse project according to the following rule:

**Your Name\_COMP303\_AssignmentNumber**

Example: **John\_COMP303\_Assignment2**

Each file submitted in the solution should have student name, student number (if you complete as a pair, both students names and numbers) and submission date in the top of the code file.

Comments may be necessary inside the functions or predicates but that the names of the functions and predicates and the comments you include to explain each are especially important.

Student must hand in the assignment to e-centennial drop box **before in-class demonstration. In pairs, both students must submit and demonstrate their assignment solution.**

### Description

Students are asked to develop a “Cruise Booking Enterprise App” to implement the CRUD using Spring MVC and JPA tools.

The web app should include following features and functionalities:

- a. The home or index page should have a passenger login for registered users and registration link for new passengers.

- b. Registered passengers will enter the reservation or booking page to book a cruise. The reservation page should give cruise information like ship name, start date, end date and destination.
- c. Passenger will checkout with giving a credit card details to make a payment after selecting a cruise. You don't need store the credit card information.
- d. A confirmation message will be displayed in a page, when payment is successfully made.
- e. Passenger will modify (change the cruise, start and end date) or cancel the reservation one week before the cruise start date (date validation needed).
- f. Passengers will also view their profile page, and edit the personal details like address, phone number etc.
- g. Provide friendly and easy to navigate web pages including **spring tag forms** with nice images and CSS formatting or boot straps.
- h. Create MySQL database with following tables (Passengers, Cruise and Booking) with fields and apply primary key and foreign key constraints. You are free to add any missing appropriate fields in the following tables.

Passengers	Cruise	Booking
passengerId userName password firstname lastname address city postalCode country	cruiseId cruiseName shipName startDate endDate destination	reservationId customerId cruiseId stateroomType totalGuests price / total amount

### Late submission:

There is a **20% off per day** late penalty which means if a student submits an assignment one day late and does perfect work, the most they can obtain is 80/100.

For example, if a student submits one day late and obtains 8/10 as an assignment then the professor will need to deduct 20% from this grade ( $8 \times .20 = 1.6$ ,  $8 - 1.6 = 6.4/10$  - record 6.4). If a student submits two days late then 40% will be deducted, for example, assume the student obtains 9/10 ( $9 \times .40 = 3.6$ ,  $9 - 3.6 = 5.4/10$ ). By day five the student receives zero.

**Assessment Rubrics:**

<b>Functionalities:</b> Developing web app with Model, Controller, and View files, and configuration of POM.xml, web.xml, dispatcher-servlet.xml and persistence.xml and other supporting files including jar files.	35 points <b>(Demonstration 5)</b>
<b>Database:</b> Design and implementation of MySQL database and tables and use of JPQL queries.	15 points
UI friendliness, use of CSS, and code standards.	5 points
Innovation	5 points
<b>Total</b>	<b>60 points</b>

**Academic honesty (Plagiarism and cheating)**

All students must follow the academic honesty policies regarding Plagiarism and cheating on assignments, Quizzes or Tests. Centennial college's Academic Policy will be strictly enforced. To support academic honesty at Centennial College, all academic work submitted by students may be reviewed for authenticity and originality, with utilizing software tools.

For more details, please visit the Academic Honesty site on <https://www.centennialcollege.ca/mycentennial/your-support/academic-support/student-academic-advising/academic-honesty/>