

CONCORDIA UNIVERSITY

DEPARTMENT OF
COMPUTER SCIENCE AND SOFTWARE ENGINEERING

COMP 6231, Winter 2019

Instructor: R. Jayakumar

ASSIGNMENT 3

Issued: Mar. 29, 2019

Due: Apr. 12, 2019

Note: *The assignments must be done individually and submitted electronically.*

**Web Service Implementation of the
Distributed Library Management System (DLMS)**

In this assignment, you are going to implement the Distributed Library Management System (DLMS) from Assignment 2 as a web service. Specifically, design the service from Assignment 2 (using the same functions and exceptions) by doing the following:

- Extract the Java client-server implementation by removing the CORBA specific code from your Assignment 2.
- Properly annotate your Java implementation to adapt it as a web service.
- Build the end point files using the `wsgen` command before publishing the service.
- Import the `wsdl` files using the `wsimport` command.

Your server design should maximize the concurrency in the application. In other words, use proper synchronization that allows multiple users/managers perform the operations at the same time.

Marking Scheme

[30%] *Design Documentation:* Describe the techniques you use and your architecture, including the data structures. Design proper and sufficient test scenarios and explain what you want to test. Describe the most important/difficult part in this assignment. You can use UML and text description, but limit the document to 10 pages. Submit the documentation and code by the due date; print the documentation and bring it to your demo.

[70%] *Demo in the Lab:* You have to register for a 5–10 minute demo. Please come to the lab session and choose your preferred demo time in advance. You cannot demo without registering, so if you did not register before the demo week, you will lose 40% of the marks. Your demo should focus on the following.

[50%] *Correctness of code:* Demo your designed test scenarios to illustrate the correctness of your design. If your test scenarios do not cover all possible issues, you'll lose part of mark up to 40%.

[20%] *Questions:* You need to answer some simple questions (like what we've discussed during lab tutorials) during the demo. They can be theoretical related directly to your implementation of the assignment.

Questions

If you are having difficulties understanding sections of this assignment, feel free to email the teaching assistant (Ms. Kritika Sharma at kritikasharma462@gmail.com, Mr. Pranav Bhatia at pb.comp6231@gmail.com or Mr. Kishan Bhimani at kishanbhimani9111@gmail.com). It is strongly recommended that you attend the tutorial sessions which will cover various aspects of the assignment.