

## 22S-CST8288 Case Study – Part 2

### (15% of grade)

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#### Overview

- Second part of the prototype for tutoring application
- You will not have enough time to fully develop the system, the intention is to give you the opportunity to apply concepts introduced in this course.
- *Part 2* focuses on the DAO pattern and servlets.

#### Project Description

- You are provided with a *Entity-Relation Diagram* (ERD)
- Your tasks are to:
  - implement the DAO pattern corresponding a table/entity
  - implement a servlet that uses the DAO
  - create a Web page to launch the servlet
  - Those working in pairs have additional tasks/deliverables.

#### Deliverables required for the Case Study 2

- This is a “group” assignment. The groups used for the first case study can be re-used.
  - BrightSpace will only display the submission link if you are in a group.
  - Even if you intend to work alone, you **must** be in a group (a group of size 1).
  - **Those working in pairs have additional deliverables. See items marked “For Pairs:”**
- Your application must implement the following as Java packages:
  - **businesslayer**
  - **dataaccesslayer** (including an class to encapsulate the "data source")
  - **transferobjects**
  - **viewlayer**
- You may reuse the *System Description* from *Part 1*
- Your application must:
  - use MySQL - SQL scripts are provided
  - use **ResultSet**
  - implement the DAO pattern corresponding to the **course** table
  - **For Pairs: implement the DAO pattern corresponding to the student table**
  - create a servlet:
    - that uses the DAO implementation and
    - outputs the contents of the **course** table as an HTML table

- **For Pairs: also outputs the contents of the *student* table as an HTML table**
- Notes:
  - only need to implement the "R" in "CRUD" (i.e. the `getAll___` method)
  - you may implement these features using multiple servlets if you wish
- provide a Web page to launch the servlet
  - initial Web page must prompt the end-user to enter the *userid* and *password* needed to authenticate to the MySQL database.
  - **For Pairs: also include an HTML form control that permits the end-user to select either the *course* or the *student* for output**
- follow Java coding conventions
- have Javadoc comments
- (for full marks) code submitted must be in the form of **NetBeans** project and
  - exported as a .zip and name your file `Lastname.Firstname.Project2.zip`
  - name your project `Lastname.Firstname.Project2`
  - (using your names, of course)