**CS 377 Final Project – Howard Hou**

Diagram

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1. Here are the functional dependencies that should hold.

cnumber -> cname in take\_class table.

Identifier -> (loginID, fname, lname) in student table.

(identifier, cnumber, semester, year) -> grade in take\_class table.

(cnumber, semester, year, a\_name) -> (due\_date, text, points) in assignment table.

(user\_id, cnumber, semester, year, a\_name) -> grade in do\_assignment table.

(cnumber, semester, year, user\_id, post\_date) -> (post\_title, post\_text) in post table.

(cnumber, semester, year, poster\_id, post\_date, replier\_id, reply\_date) -> reply\_text in response table.

The relational schema is already normalized to 3NF in Q2.

1. <http://35.224.234.87/LoginPage.php>

Graphical user interface, application, Teams

Description automatically generated

Graphical user interface, application, Word

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The csv file names correspond to their table names in the database.

Table

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7-10.

loginPage.php: Ask for UserID and LoginID.

homePage.php: Checks whether the login information exists. If exists, print 3 tables: the courses the user is taking (where final letter grade is shown), the courses the user is instructing, and the courses the user is TA-ing. Click on the relevant courses to direct to the next page.

q7c.php: contains the course content. Allow the student to view their current assignment grades. Click on an assignment to direct to the assignment info page.

q7d.php: contains the details of the assignment.

q8.php: The instructor homepage for a particular course. This webpage allows the instructor (or TA) to view the particular course content. It also has three links that directs to the “assignments page”, “students page” and “Q&A page”.

q8aa.php: shows all the assignment with their total possible points. Clicking on an assignment directs to q8ab.php. It also has form to allow the instructor to create an new assignment, which directs to q8ad.php.

q8ab.php: shows the current grades for all students for this assignment. It also allows the instructor to enter or update the grade of a student for this assignment, which is submitted to q8ac.php.

q8ac.php: adds the newly entered grade of a student for an assignment to the database.

q8ad.php: adds the newly created assignment to the database.

q8ba.php: shows all the students in this class with letter grades (if available). Clicking on a student directs to q8bb.php. It also allows an instructor to enter or update the letter grade for a student for this course, which is submitted to q8bd.php.

q8bb.php: shows all the assignment grades for the current student. Clicking on any assignment would direct to q7d.php, which is the assignment info page. It also allows the instructor to enter or update the grade for a particular assignment for this student, which is submitted to q8bc.php.

q8bc.php: adds the newly entered grade of a student for an assignment to the database.

q8bd.php: adds the entered letter grade of a student for this course to the database.

QnA.php: shows all the current posts of this class (which is displayed in ascending order of timestamp). It allows filter by tag, which is submitted to QnA\_tag.php. It allows to enter into a particular post, which is sent to threads.php. It also allows to add a post, which is submitted to addPost.php.

QnA\_tag.php: shows all the current posts of the class under the tag specified. It has all the functionality of QnA.php.

threads.php: shows the text for the post and shows all the current replies to the post. It allows the user to add a reply, which is sent to addReply.php.

addPost.php: adds the added post to the database.

addReply.php: adds the added reply to the database.