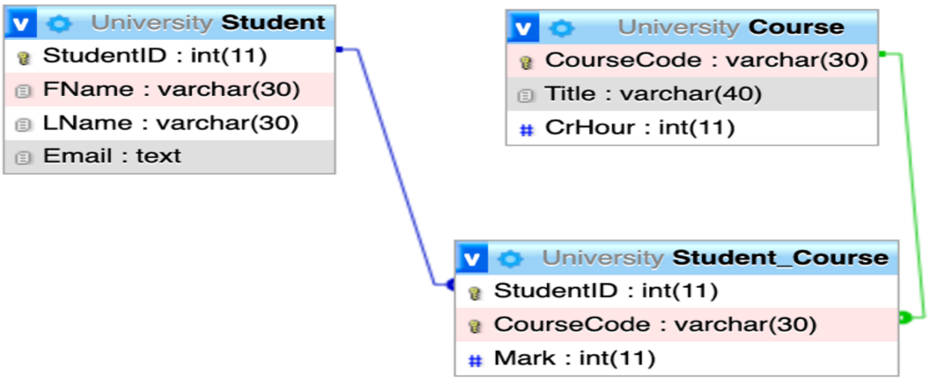
Computer Science Division
Department of Mathematics
Faculty of Science

Level 2- Spring Semester
Course Code: COMP 206
Date: April 23, 2024

Sheet 7

Objective: upon successful completion of this sheet, students should be familiar with database connectivity in PHP and able to perform CRUD operations on databases using PDO.

Use PHPMyAdmin to build a database named “University”, which contain the following tables:



University **Student**
StudentID : int(11)
FName : varchar(30)
LName : varchar(30)
Email : text

University **Course**
CourseCode : varchar(30)
Title : varchar(40)
CrHour : int(11)

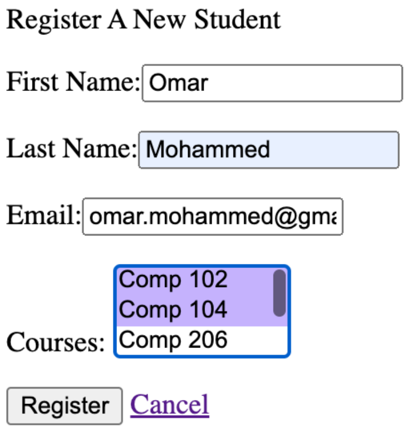
University **Student_Course**
StudentID : int(11)
CourseCode : varchar(30)
Mark : int(11)

Then, create a PHP script file to perform each of the following tasks using the appropriate form controls to add, update, delete, and search for students’ data:

1. Connect to the database.
2. Insert a new student’s data.
3. Update a student’s data, such as entering marks for different courses.
4. Delete a student’s data.
5. Search for a specific information, such as finding students enrolled in certain courses, finding students with a mark greater than or equal to 80 in specific courses, and obtaining the number of credits for certain courses. The output should be displayed in a tabular form.

Here are some figures illustrating the structure of forms used for performing some of the above-mentioned tasks.

addStudent.php


Register A New Student

First Name: Omar

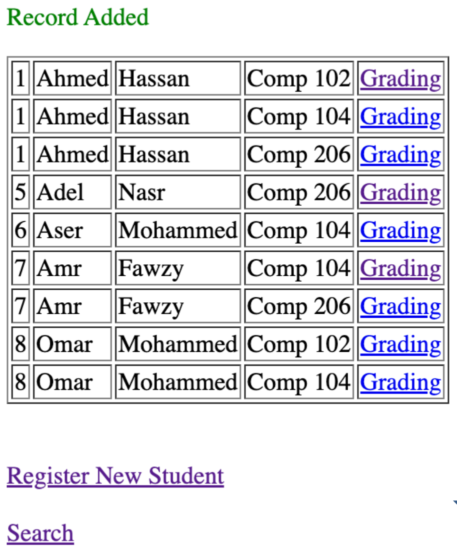
Last Name: Mohammed

Email: omar.mohammed@gma

Courses: Comp 102
Comp 104
Comp 206

After registering a student with two courses

index.php

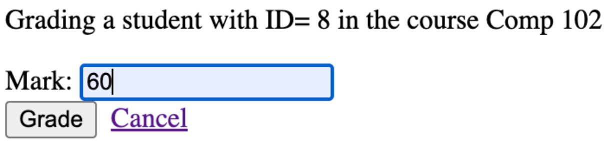

Record Added

1	Ahmed	Hassan	Comp 102	Grading
1	Ahmed	Hassan	Comp 104	Grading
1	Ahmed	Hassan	Comp 206	Grading
5	Adel	Nasr	Comp 206	Grading
6	Aser	Mohammed	Comp 104	Grading
7	Amr	Fawzy	Comp 104	Grading
7	Amr	Fawzy	Comp 206	Grading
8	Omar	Mohammed	Comp 102	Grading
8	Omar	Mohammed	Comp 104	Grading

After clicking the “Grading” link

After clicking the “Grade” button, the “Student_Course” table should be updated to insert the “Mark” field using the “update” statement. Afterwards, the page should redirect back to the “index” page.

grade.php


Grading a student with ID= 8 in the course Comp 102

Mark: 60

<u>Note that:</u>

- You should add some courses along with their required information to the “Course” table.
- The “Student” and “Student_Course” tables are related through the “StudentID” field. To enter course data into the “Student_Course” table after inserting the student’s data, you need to keep track of the last entered StudentID. This can be achieved using the “`lastInsertId()`” function in the PDO object.
- One of the SQL statements that can be used to select data from multiple related tables is given below:

```
SELECT column-name1 [, column-name2] …
FROM table-name1
INNER JOIN table-name2
ON table-name1.column-name=table-name2.column-name
WHERE …
```