

## (CL-219) Database Systems Lab

Spring 2021

FAST-NU Peshawar Campus

### Assignment # 02

- The due date for this homework is **June 8<sup>th</sup>, 2021**
- There is **30%** penalty for late submission.
- Copied assignments will be awarded **zero** marks.
- All submissions should be made on Google Class Room.
- Upload a PDF/MS word file including all tasks and source code in a zip file.

#### Question # 01

Download the script named *university.sql* from google classroom in scripts directory and run it using mysql console. After running it you will get database named university and a table named student having the following attributes:

Field	Type	Null	Key	Default	Extra
roll_no	varchar(10)	NO	PRI	NULL	
st_name	varchar(30)	NO		NULL	
f_name	varchar(30)	NO		NULL	
gender	varchar(10)	NO		NULL	
contact	varchar(16)	NO		NULL	
address	varchar(250)	NO		NULL	

Figure 1: Student table

Create another table in the same database and name it *Courses* having the attributes *course\_code*, *course\_name* and *credit\_hours*. You need to enroll the students in courses, you can create additional table(s) if needed. A single student can be enrolled in multiple courses and a single course can have multiple students.

Create a webpage in which a user can enter a new course in the *Courses* table. Create another page where a student can be enrolled in the available courses. All of the courses that are in the *Courses* table should be shown on this page. The courses that a student is enrolled in should be shown in a separate section than those that he/she is not enrolled in. Your webpages should look like the page shown in the following figure:

## Course Registration Form

Course Code:

Course Name:

Credits:

Submit

Figure 2 Course Registration

**Search Student**

Roll No

Roll No	Name	Father's Name	Gender	Contact No	Address
p20-1234	abc	def	Male	123	Kohat

Registered Courses		
Code	Name	Credits
CS203	Database Systems	3
CL203	Database Systems Lab	1
CS205	Operating Systems	3
CL205	Operating Systems Lab	1

Available Courses		
Code	Name	Credits
CS302	Design & Analysis of Algorithms	3
CS211	Discrete Structures	3
MG108	Fundamentals of Accounting	3
CS307	Computer Networks	3
CL307	Computer Networks Lab	1

Figure 3: Course Enrollment

### Note:

- You should submit the webpages (php files) as well as the sql file of the database.

## Question # 02

Table 1: Users [user\_id (p.k)]

user_id	username	password	email
1	Salman	1234	salman@gmail.com
2	Harry	9090	harry@outlook.com
3	Atif	Pak123	atif@yahoo.com
4	Fawad	Pesh098	fawad@gmail.com
5	Mehwish	asd	mehwish@yahoo.com
6	Babar	Qwe876	babar@yahoo.com

Table 2: Summary [id(p.k)]

id	total_users	Yahoo_users	Outlook_users	Gmail_users
1	6	3	1	2

Create the database named person and the tables shown in above figure.

Create a trigger to update the records in the summary table. The summary table will contain only one record which contains total number of users, Yahoo users, Outlook users and Gmail users. The summary table will be updated only whenever an email address is updated from one email account to another email account in the users table.

Suppose an email address [fawad@gmail.com](mailto:fawad@gmail.com) is updated to [fawad@yahoo.com](mailto:fawad@yahoo.com) so your trigger should decrement 1 from Gmail\_users field and increment 1 to Yahoo\_users field only.