

School of Information and Computer
Technology Sirindhorn International Institute
of Technology Thammasat University
CSS326 Database Programming Laboratory

Laboratory Assignment#4
Database Management with MySQL

Objectives:

- To learn how to maintain MySQL, including table creation and MySQL meta commands.
- To learn how to make a query in MySQL.
- To learn how to update data in MySQL

1. According to the following entity-relationship diagram fig. 1, you have to generate the relation schema in phpMyAdmin. You are given the necessary data to be inserted in your tables by the Figure 2. The resulting relational schema should look like the fig. 3. Insert the data including generating the database and tables using SQL commands (**Score: 5 marks**)

*Remember: There are redundant data in the tables and derive the data that is necessary for your relation schema.

*** Save and keep all query commands in a separate notepad file & Name it as "YourID.txt".

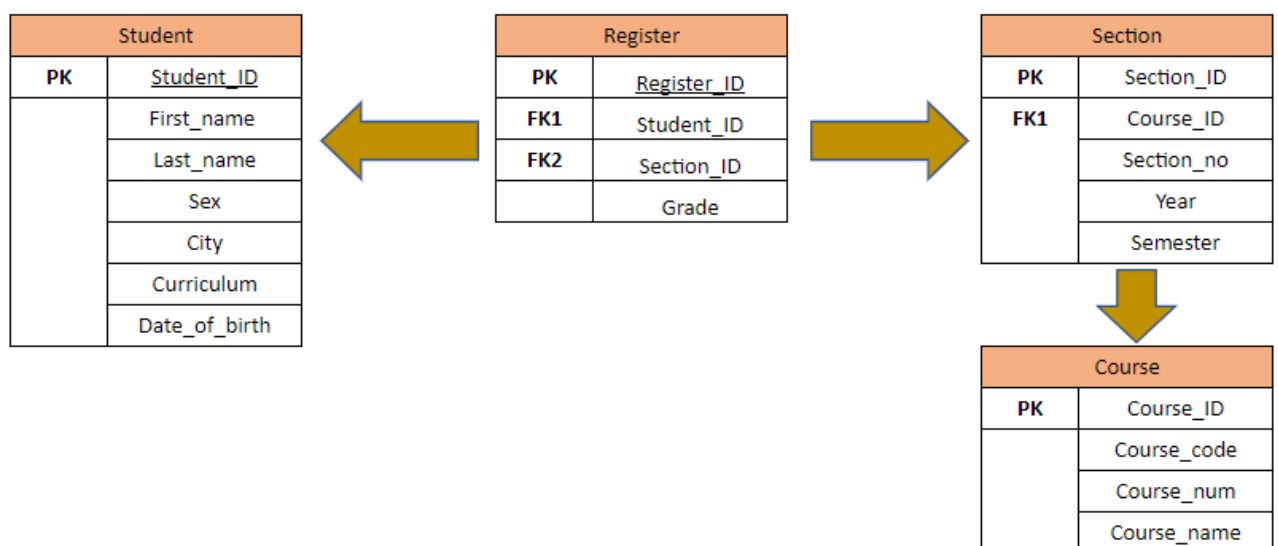


Figure 1: A simple E-R diagram for a school registration system

PK: primary key (in each table)
FK1: Foreign Key 1 (in each table)
FK2: Foreign Key 2 (in each table)

Student Table

Student ID	First Name	Last name	Sex	City	Curriculum	Date of birth
6022040411	Adam	Phelps	Male	New York	ICT	7/24/2000
6022040412	Mark	Twain	Male	Los Angeles	ICT	9/13/2002
6022040413	Shania	Judith	Female	New York	CIVIL	5/19/2001
6022040414	Angelina	Rosswell	Female	California	MECHANICAL	7/27/2002
6022040415	Thomas	Hardy	Male	New York	MANAGEMENT	3/19/2006

Section Table

Student ID	First Name	Last name	Section ID	Section no.	Grade	Semester	Year
6022040411	Adam	Phelps	623	1	A	1	2019
6022040412	Mark	Twain	625	3	B	1	2019
6022040413	Shania	Judith	354	2	A	1	2019
6022040414	Angelina	Rosswell	267	1	C	2	2020
6022040415	Thomas	Hardy	147	2	A	2	2020

Course Table

Student ID	Shania	Last name	Course ID	Course no.	Course name	Course code	Grade
6022040411	Adam	Phelps	4576	45	Programming	ITS341	A
6022040412	Mark	Twain	4576	45	Programming	ITS341	B
6022040413	Shania	Judith	2345	24	Critical Thinking	GC124	A
6022040414	Angelina	Rosswell	1458	12	CAD/CAM	ME231	C
6022040415	Thomas	Hardy	2345	24	Critical Thinking	GC124	A

Registration Table

Registration ID	Student ID	Shania	Last name	Section ID	Grade
602	6022040411	Adam	Phelps	623	A
603	6022040412	Mark	Twain	625	B
604	6022040413	Shania	Judith	354	A
605	6022040414	Angelina	Rosswell	267	C
606	6022040415	Thomas	Hardy	147	A

Figure 2: The data that needs to be inserted in to your tables,* not all fields are necessary.

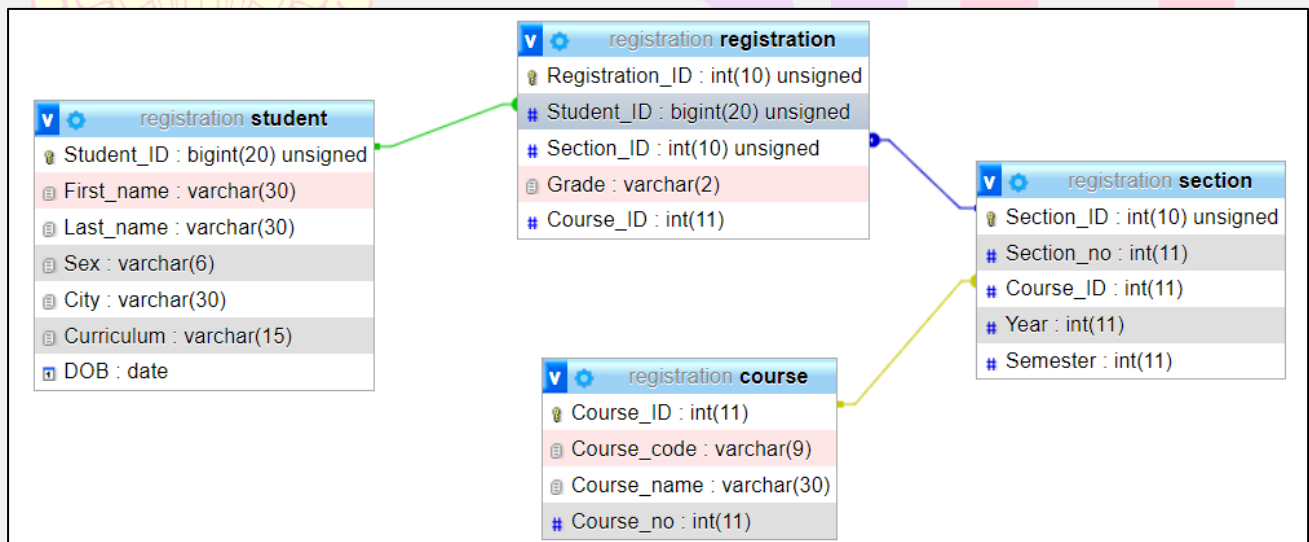


Figure 3: The expected output relation schema.

* Course_ID in registration table is optional.

2. Using the above Registration Database you created, complete the following queries.

- Write a query to show a list of IT students and order by their first name.
- Write a query to show a list of students who do not live in New York.
- Write a query to show the age of each student.
- Write a query to find the students who have Grade 'A' (include the student ID and first name and Grade).
- Write a query to update all the students who learn "ME231 (CAD/CAM)" grade to B+.

(Score: 5 marks)

*Hints: Save and keep all query commands in a separate notepad file & Name it as "YourID.txt".

