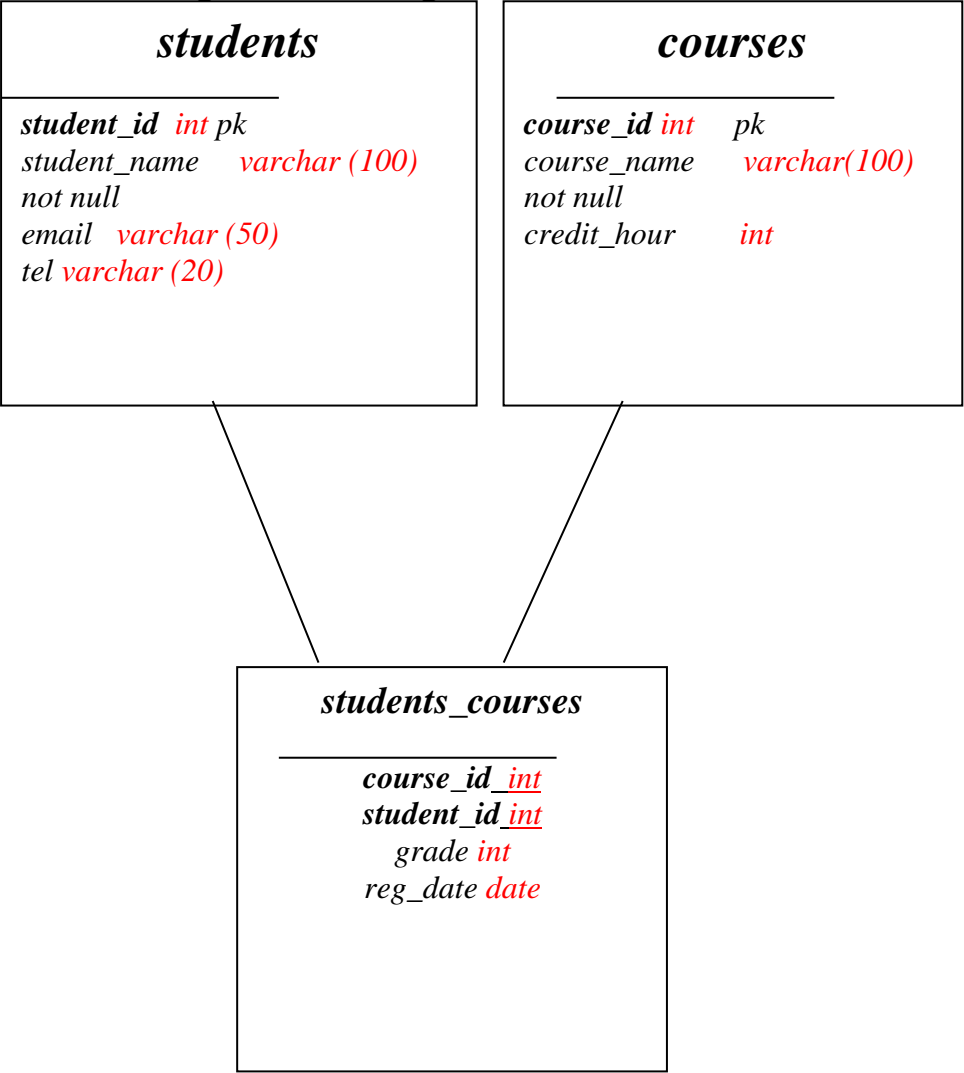


MySQL Labs

MySQL (Day1):

1	Create a database called grades
	CREATE DATABASE grades;
2	<div><div>Create the following tables in the grades database:</div><div><div><div><i>students</i></div><div><u>student_id</u> <i>int</i> <i>pk</i> student_name <i>varchar (100)</i> not null email <i>varchar (50)</i> tel <i>varchar (20)</i></div></div><div><div><i>courses</i></div><div><u>course_id</u> <i>int</i> <i>pk</i> course_name <i>varchar(100)</i> not null credit_hour <i>int</i></div></div><div><div><i>students_courses</i></div><div><u>course_id</u> <i>int</i> <u>student_id</u> <i>int</i> grade <i>int</i> reg_date <i>date</i></div></div><div></div></div></div> <div><div>CREATE TABLE students (student_id INT PRIMARY KEY, student_name VARCHAR(100) NOT NULL, email VARCHAR(50), tel VARCHAR(20));</div><div>CREATE TABLE courses (course_id INT PRIMARY KEY, course_name VARCHAR(100) NOT NULL, credit_hour INT);</div><div>CREATE TABLE students_courses (course_id INT, student_id INT, grade INT, reg_date DATE, PRIMARY KEY (course_id, student_id), FOREIGN KEY (course_id) REFERENCES courses(course_id), FOREIGN KEY (student_id) REFERENCES students(student_id));</div></div>

3	Modify the <code>students</code> table to allow for longer <code>Student names (150 char)</code> Confirm your modification.
	ALTER TABLE students MODIFY COLUMN student_name VARCHAR(150);
4	Add constraint to force <code>unique email</code> for each student
	ALTER TABLE students ADD CONSTRAINT unique_email UNIQUE (email);
5	Get <code>Time, Date, Current user, MySQL Version</code> using prompt?
	SELECT now(); or SELECT CURTIME();SELECT CURDATE(); SELECT CURRENT_USER(); SELECT VERSION();
6	Add <code>gender</code> column for the <code>students</code> table. It holds <code>two value (male or female)</code>
	ALTER TABLE students ADD gender VARCHAR(10);
7	Add <code>birth_date</code> column for the <code>students</code> table.
	ALTER TABLE students ADD birth_date DATE;
8	Drop the <code>student_name</code> column and replace it with <code>first name</code> and <code>last name</code>.
	ALTER TABLE students ADD first_name VARCHAR(100), ADD last_name VARCHAR(100); ALTER TABLE students DROP COLUMN student_name;

Part II

Populate your tables with the following records:

```
MariaDB [osg1]> select * from courses;
```

course_id	course_name	credit_hour
1	Database	2
2	C	3
3	Network	1
4	OS	1
5	MySQL	2
6	Java	4

```
MariaDB [osg1]> select * from students;
```

student_id	first_name	last_name	tel	email	gender	birth_date
1	Ahmed	Aly	NULL	NULL	male	1991-10-01
2	Ahmed	Ibrahim	NULL	NULL	male	1991-09-01
3	Ahmed	Ossama	NULL	NULL	male	1992-10-01
4	Hoda	Khaled	NULL	NULL	female	1991-09-01
5	Mona	Khalil	NULL	NULL	female	1992-10-01

```
MariaDB [osg1]> select * from students_courses;
```

student_id	course_id	grade	reg_date
1	1	80	NULL
1	2	90	NULL
1	3	100	NULL
2	2	99	NULL
2	3	80	NULL
3	4	70	NULL

1	Display all students' information.
	SELECT * FROM students;
2	Display <u>male</u> students only.
	SELECT * FROM students WHERE gender = 'male';
3	Display the <u>number of female</u> students.
	SELECT COUNT(*) AS female_count FROM students WHERE gender = 'female';
4	Display the <u>students' data</u> for the students who are born before 1992-10-01.
	SELECT * FROM students WHERE birth_date < '1992-10-01';
5	Display the <u>students' data</u> for the students who are born after 1991-10-01.
	SELECT * FROM students WHERE birth_date > '1991-10-01';