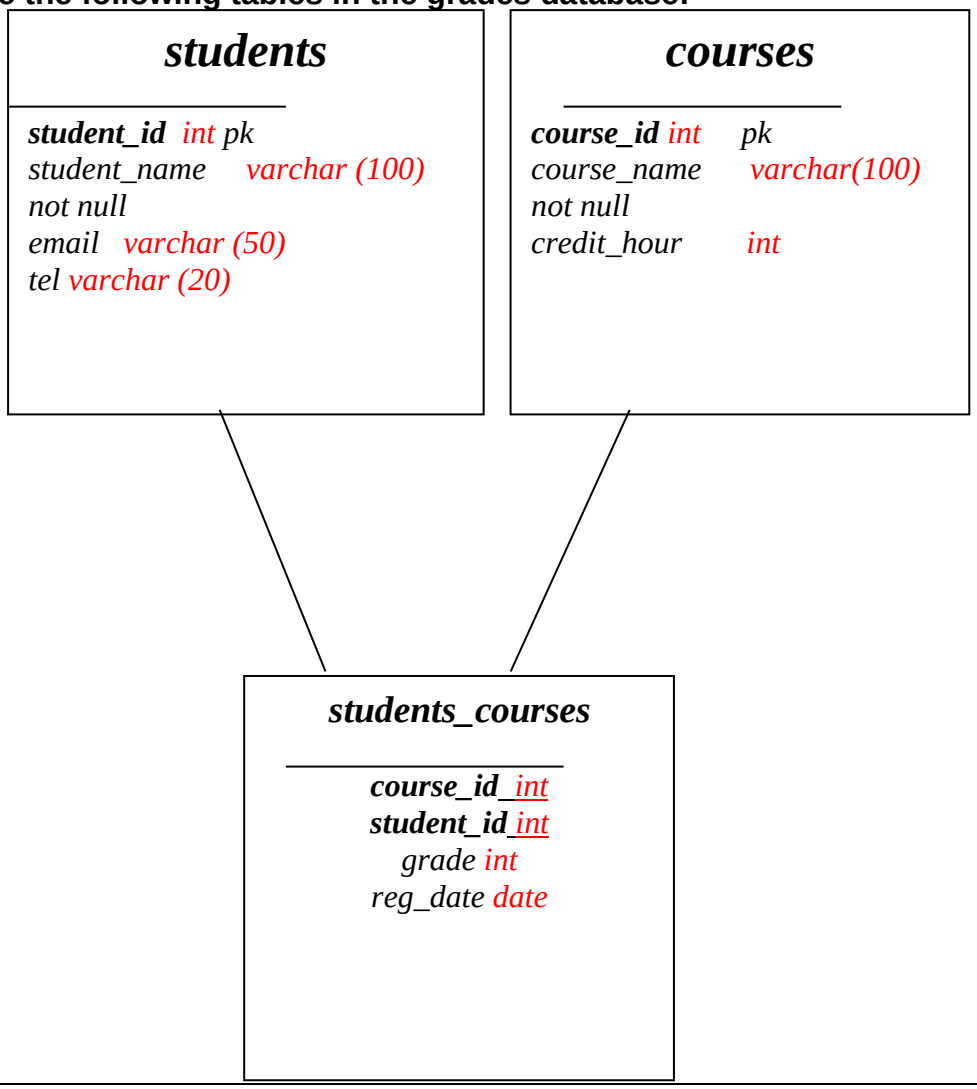
MySQL Labs

MySQL (Day1):

1	**Create a database called grades**
	CREATE DATABASE grades
2	**Create the following tables in the grades database:** 
	use grades **CREATE TABLE students (_id INT primary key,** **student_name varchar(100) NOT NULL,** **email varchar(50),** **tel varchar(20))** **CREATE TABLE courses (course_id INT primary key,** **course_name varchar(100) NOT NULL,** **credit_hour INT)**

	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(_id));
3	Modify the students table to allow for longer Student names (150 char) Confirm your modification.
	ALTER TABLE students MODIFY COLUMN student_name VARCHAR(150) NOT NULL;
4	Add constraint to force unique email for each student
	ALTER TABLE students ADD CONSTRAINT unique_email UNIQUE(email);
5	Get Time, Date, Current user, MySQL Version using prompt?
	TIME: SELECT CURTIME(); Date: SELECT CURDATE(); VERSION: select VERSION(); CURRENT USER : SELECT CURRENT_USER();
6	Add gender column for the students table. It holds two value (male or female)
	ALTER TABLE students add gender ENUM('male,'female')
7	Add birth_date column for the students table.
	ALTER TABLE students add birth_date DATE;
8	Drop the student_name column and replace it with first name and last name.
	ALTER TABLE students ADD first_name VARCHAR(100), ADD last_name VARCHAR(100); UPDATE students SET first_name = SUBSTRING_INDEX(student_name, ' ', 1), last_name = SUBSTRING_INDEX(student_name, ' ', -1); 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 male students only.**
	Select * from students where gender ='male';
3	**Display the number of female students.**
	Select COUNT(gender) from students where gender ='female';
4	**Display the students' data for the students who are born before 1992-10-01.**
	Select * from students where birth_date <' 1992-10-01'
5	**Display the students' data for the students who are born after 1991-10-01.**
	Select * from students where birth_date >' 1992-10-01'