

-- Create the Students table

```
CREATE TABLE Students (  
    student_id INT PRIMARY KEY,  
    first_name VARCHAR(255) NOT NULL,  
    last_name VARCHAR(255) NOT NULL,  
    email VARCHAR(255) NOT NULL,  
    birthdate DATE NOT NULL,  
    registration_date DATE NOT NULL  
);
```

-- Create the Courses table

```
CREATE TABLE Courses (  
    course_id INT PRIMARY KEY,  
    course_name VARCHAR(255) NOT NULL,  
    instructor VARCHAR(255) NOT NULL,  
    start_date DATE NOT NULL,  
    end_date DATE NOT NULL,  
    capacity INT NOT NULL  
);
```

-- Create the Registrations table

```
CREATE TABLE Registrations (  
    student_id INT NOT NULL,  
    course_id INT NOT NULL,  
    FOREIGN KEY (student_id) REFERENCES Students(student_id),  
    FOREIGN KEY (course_id) REFERENCES Courses(course_id),  
    PRIMARY KEY (student_id, course_id)  
);
```

-- Insert at least five students and five courses into their respective tables

```
INSERT INTO Students (student_id,first_name, last_name, email, birthdate, registration_date)
```

VALUES

```
(1,'Ruzzel', 'David', 'ruzzeld@gmail.com', '1998-06-08', '2023-09-22'),  
(2,'Azeil', 'Mybaby', 'azemybaby@example.com', '1999-04-29', '2023-09-22'),  
(3,'Peter', 'Spiderman', 'spidy@web.com', '2000-05-12', '2023-07-22'),  
(4,'Iron ', 'Man', 'batombakal@avengers.com', '1994-06-11', '2023-08-22'),  
(5,'Bruce', 'Wayne', 'crazyrichass@tote.com', '2001-07-12', '2023-09-22');
```

INSERT INTO Courses (course_id,course_name, instructor, start_date, end_date, capacity)

VALUES

```
(1,'SIGNALPRO DIGITAL SIGNAL PROCESSING', 'Dr. Pabustan', '2023-09-25', '2026-12-15', 30),  
(2,'CPE PRACTICE AND DESIGN 1', 'Dr. Huge', '2023-09-26', '2026-12-16', 25),  
(3,'EMBEDDED SYSTEMS LABORATORY', 'Dr. Eugene', '2026-09-27', '2023-12-17', 20),  
(4,'EMERGING TECHNOLOGIES IN COMPUTER', 'Dr. Kwakkwak', '2026-09-28', '2026-12-18', 15),  
(5,'GREAT BOOKS', 'Dr. Baltazar', '2023-09-29', '2026-12-19', 10);
```

-- Register some students for some courses

INSERT INTO Registrations (student_id, course_id)

VALUES

```
(1, 1),  
(2, 1),  
(3, 2),  
(4, 3),  
(5, 4);
```

-- Retrieve a list of all courses along with the number of students currently registered for each course. Include courses with no registered students.

SELECT

Courses.course_name,

COUNT(Students.student_id) AS num_students_registered

FROM Courses

LEFT JOIN Registrations ON Courses.course_id = Registrations.course_id

LEFT JOIN Students ON Registrations.student_id = Students.student_id

```
GROUP BY Courses.course_name;

-- Retrieve the names and email addresses of students who have registered for a course that starts after '2023-01-01'.

SELECT
    Students.first_name,
    Students.last_name,
    Students.email
FROM Students
JOIN Registrations ON Students.student_id = Registrations.student_id
JOIN Courses ON Registrations.course_id = Courses.course_id
WHERE Courses.start_date > '2023-01-01';
```

course_name		num_students_registered
CPE PRACTICE AND DESIGN I		1
EMBEDDED SYSTEMS LABORATORY		1
EMERGING TECHNOLOGIES IN COMPUTER		1
GREAT BOOKS		0
SIGNALPRO DIGITAL SIGNAL PROCESSING		2

first_name	last_name	email
Ruzzel	David	ruzzeld@gmail.com
Azeil	Mybaby	azemybaby@example.com
Peter	Spiderman	spidy@web.com
Iron	Man	batombakal@avengers.com
Bruce	Wayne	crazyrichass@tote.com

Courses

course_id	course_name	instructor	start_date	end_date	capacity
1	SIGNALPRO DIGITAL SIGNAL PROCESSING	Dr. Pabustan	2023-09-25	2026-12-15	30
2	CPE PRACTICE AND DESIGN I	Dr. Huge	2023-09-26	2026-12-16	25
3	EMBEDDED SYSTEMS LABORATORY	Dr. Eugene	2026-09-27	2023-12-17	20
4	EMERGING TECHNOLOGIES IN COMPUTER	Dr. Kwakkwak	2026-09-28	2026-12-18	15
5	GREAT BOOKS	Dr. Baltazar	2023-09-29	2026-12-19	10

Registrations

student_id	course_id
1	1
2	1
3	2
4	3
5	4

Students

student_id	first_name	last_name	email	birthdate	registration_date
1	Ruzzel	David	ruzzeld@gmail.com	1998-06-08	2023-09-22
2	Azeil	Mybaby	azemybaby@example.com	1999-04-29	2023-09-22
3	Peter	Spiderman	spidy@web.com	2000-05-12	2023-07-22
4	Iron	Man	batombakal@avengers.com	1994-06-11	2023-08-22
5	Bruce	Wayne	crazyrichass@tote.com	2001-07-12	2023-09-22