

Lab Manuals Name: Implementation of Relational Databases (Join Function)

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Dept: Cse

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• Create a table student:

```
CREATE TABLE student (  
    s_id INT(11) NOT NULL AUTO_INCREMENT,  
    FirstName VARCHAR(255) NOT NULL,  
    LastName VARCHAR(255) NOT NULL,  
    Address VARCHAR(255) NOT NULL,  
    dept_name ENUM('CSE', 'EEE', 'TEXT') DEFAULT NULL,  
    AdmissionDate DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP(),  
    PRIMARY KEY(s_id)  
);
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0001 seconds.)

```
SELECT * FROM `student`
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

s_id	FirstName	LastName	Address	dept_name	AdmissionDate
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Query results operations

Create view

2. INSERT INTO student (s_id, FirstName, LastName, Address, dept_name, AdmissionDate)
VALUES

(1, 'Zeseya', 'Sharmin', 'Dhaka', 'CSE', '2024-11-25 12:00:00'),
(2, 'Sakib', 'Hasan', 'Natore', 'CSE', '2024-11-25 15:00:00'),
(3, 'Asef', 'Tajwar', 'Rangpur', 'EEE', '2024-11-25 16:00:00'),
(4, 'Maruf', 'Hasan', 'Barisal', 'EEE', '2024-11-25 17:00:00'),
(5, 'Ashek', 'Farabi', 'Gazipur', 'TEX', '2024-11-25 18:00:00'),
(6, 'Ismile', 'Hasan', 'Barisal', 'TEX', '2024-11-25 19:00:00');

Extra options

		s_id	FirstName	LastName	Address	dept_name	AdmissionDate
<input type="checkbox"/>	Edit Copy Delete	1	Zeseya	Sharmin	Dhaka	CSE	2024-11-25 12:00:00
<input type="checkbox"/>	Edit Copy Delete	2	Sakib	Hasan	Natore	CSE	2024-11-25 15:00:00
<input type="checkbox"/>	Edit Copy Delete	3	Asef	Tajwar	Rangpur	EEE	2024-11-25 16:00:00
<input type="checkbox"/>	Edit Copy Delete	4	Maruf	Hasan	Barisal	EEE	2024-11-25 17:00:00
<input type="checkbox"/>	Edit Copy Delete	5	Ashek	Farabi	Gazipur	TEX	2024-11-25 18:00:00
<input type="checkbox"/>	Edit Copy Delete	6	Ismile	Hasan	Barisal	TEX	2024-11-25 19:00:00

Check all With selected: Edit Copy Delete Refresh

3.CREATE TABLE department (

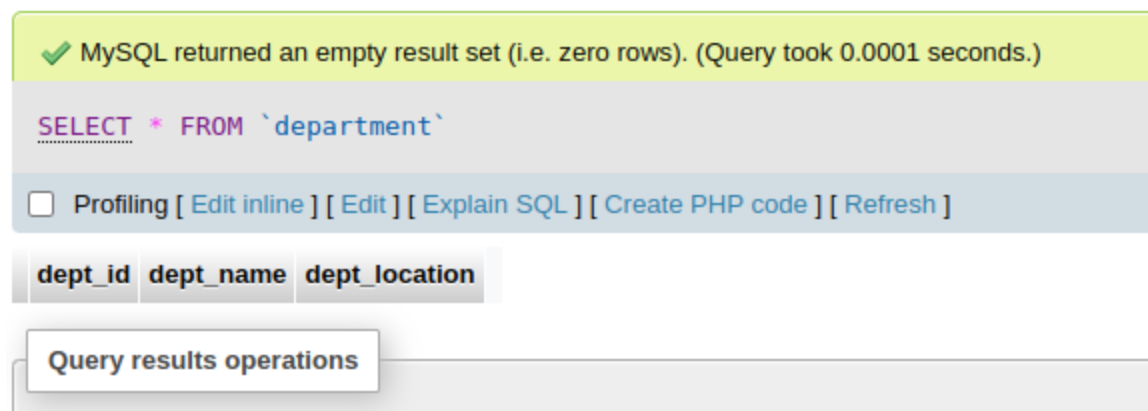
dept_id INT(11) NOT NULL AUTO_INCREMENT,

dept_name ENUM('CSE', 'EEE', 'TEX') DEFAULT NULL,

dept_location VARCHAR(255) NOT NULL,

PRIMARY KEY(dept_id)

);



The screenshot shows a MySQL query execution interface. At the top, a green status bar indicates: "MySQL returned an empty result set (i.e. zero rows). (Query took 0.0001 seconds.)". Below this, the SQL query is displayed: `SELECT * FROM `department``. Under the query, there are several interactive links: "Profiling", "Edit inline", "Edit", "Explain SQL", "Create PHP code", and "Refresh". Below the links, a table header is shown with three columns: "dept_id", "dept_name", and "dept_location". At the bottom, there is a button labeled "Query results operations".

4.INSERT INTO department (dept_id, dept_name, dept_location)











VALUES

(101, 'CSE', 'Building-2'),

(102, 'EEE', 'Building-2'),

(103, 'TEX', 'Building-1');

Extra options

				dept_id	dept_name	dept_location
<input type="checkbox"/>	 Edit	 Copy	 Delete	101	CSE	Building-2
<input type="checkbox"/>	 Edit	 Copy	 Delete	102	EEE	Building-2
<input type="checkbox"/>	 Edit	 Copy	 Delete	103	TEX	Building-1

```

5.CREATE TABLE course_registration (
    reg_serial INT(11) NOT NULL AUTO_INCREMENT,
    course_code VARCHAR(255) NOT NULL,
    course_title VARCHAR(255) NOT NULL,
    dept_id INT(11) NOT NULL,
    s_id INT(11) NOT NULL, -- Assuming student ID is an integer
    PRIMARY KEY (reg_serial),
    FOREIGN KEY (dept_id) REFERENCES department(dept_id),
    FOREIGN KEY (s_id) REFERENCES student(s_id)
);

```










✓ Showing rows 0 - 2 (3 total, Query took 0.0001 seconds.)


```
SELECT * FROM `department`
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 ▼ Filter rows:

Extra options

				dept_id	dept_name	dept_location
<input type="checkbox"/>	 Edit	 Copy	 Delete	101	CSE	Building-2
<input type="checkbox"/>	 Edit	 Copy	 Delete	102	EEE	Building-2
<input type="checkbox"/>	 Edit	 Copy	 Delete	103	TEX	Building-1



```
6.SELECT * FROM student WHERE s_id IN (142002015, 142002001,  
162002002, 172002002);
```

```
INSERT INTO course_registration(course_code,Course_title,dept_id,s_id)
```

```
VALUES ('CSE 311', 'Computer Networks',101,142002015),
```

```
('CSE 311', 'Computer Networks',101,142002001),
```

```
('EEE 301','Electrical Circuit',201,162002002),
```

```
('TEX 201', 'Aparales', 301,172002002),
```

```
('CSE 312', 'Computer Networks Lab',101,142002015),
```

```
('CSE 207', 'Algorithm',101,142002001);
```

```
7.SELECT s_id
```

```
FROM student
```

```
UNION
```

```
SELECT s_id
```

```
FROM course_registration;
```

✓ Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

```
SELECT s_id FROM student UNION SELECT s_id FROM course_registration;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 ▼ Filter rows:

Extra options

s_id
1
2
3
4
5

```
8.SELECT s_id
FROM student
UNION ALL
SELECT s_id
FROM course_registration;
```

✓ Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

```
SELECT s_id FROM student UNION ALL SELECT s_id FROM course_registration;
```

☐ Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [[Refresh](#)]

☐ Show all | Number of rows: 25 | Filter rows:

Extra options

s_id

1

2

3

4

5

6

8. SELECT student.s_id, student.FirstName, student.LastName
FROM student
INNER JOIN course_registration ON student.s_id = course_registration.s_id;

	s_id	FirstName	LastName	Address	dept_name	AdmissionDate
<input type="checkbox"/> Edit Copy Delete	1	Zeseya	Sharmin	Dhaka	CSE	2024-11-25 12:00:00
<input type="checkbox"/> Edit Copy Delete	2	Sakib	Hasan	Natore	CSE	2024-11-25 15:00:00
<input type="checkbox"/> Edit Copy Delete	3	Asef	Tajwar	Rangpur	EEE	2024-11-25 16:00:00
<input type="checkbox"/> Edit Copy Delete	4	Maruf	Hasan	Barisal	EEE	2024-11-25 17:00:00
<input type="checkbox"/> Edit Copy Delete	5	Ashek	Farabi	Gazipur	TEX	2024-11-25 18:00:00
<input type="checkbox"/> Edit Copy Delete	6	Ismile	Hasan	Barisal	TEX	2024-11-25 19:00:00

9. SELECT student.s_id, student.FirstName, student.LastName
FROM student
INNER JOIN course_registration ON student.s_id = course_registration.s_id
WHERE course_registration.s_id = 142002015;

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SELECT student.s_id, student.FirstName, student.LastName FROM student INNER JOIN course_registration ON student.s_id = course_registration.s_id WHERE course_registration.s_id = 142002015;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

s_id	FirstName	LastName
------	-----------	----------

```
10.SELECT student.s_id, student.FirstName, student.dept_name, department.dept_id
FROM student
INNER JOIN department ON student.dept_name = department.dept_name
```

```
SELECT student.s_id, student.FirstName, student.dept_name, department.dept_id FROM student INNER JOIN department ON student.dept_name = department.dept_name;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all

Number of rows: 25 ▼

Filter rows: Search this table

Sort by key: None ▼

Extra options

s_id	FirstName	dept_name	dept_id
1	Zeseya	CSE	101
2	Sakib	CSE	101
3	Asef	EEE	102
4	Maruf	EEE	102
5	Ashek	TEX	103
6	Ismile	TEX	103

Console

Bookmarks Opt

```
11.SELECT student.s_id, student.FirstName, student.dept_name, department.dept_id,
course_registration.course_code
FROM student
INNER JOIN department ON student.dept_name = department.dept_name
INNER JOIN course_registration ON department.dept_id = course_registration.dept_id;
```

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SELECT student.s_id, student.FirstName, student.dept_name, department.dept_id, course_registration.course_code FROM student INNER JOIN department ON student.dept_name = department.dept_name INNER JOIN course_registration ON department.dept_id = course_registration.dept_id;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

s_id	FirstName	dept_name	dept_id	course_code
------	-----------	-----------	---------	-------------

Query results operations

```
12.SELECT student.s_id, student.FirstName, student.dept_name, department.dept_id,
course_registration.course_code
FROM student
INNER JOIN department ON student.dept_name = department.dept_name
INNER JOIN course_registration ON department.dept_id = course_registration.dept_id
GROUP BY s_id;
```

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)

```
SELECT student.s_id, student.FirstName, student.dept_name, department.dept_id, course_registration.course_code FROM student INNER JOIN department ON student.dept_name = department.dept_name INNER JOIN course_registration ON department.dept_id = course_registration.dept_id GROUP BY s_id;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

s_id	FirstName	dept_name	dept_id	course_code
------	-----------	-----------	---------	-------------