



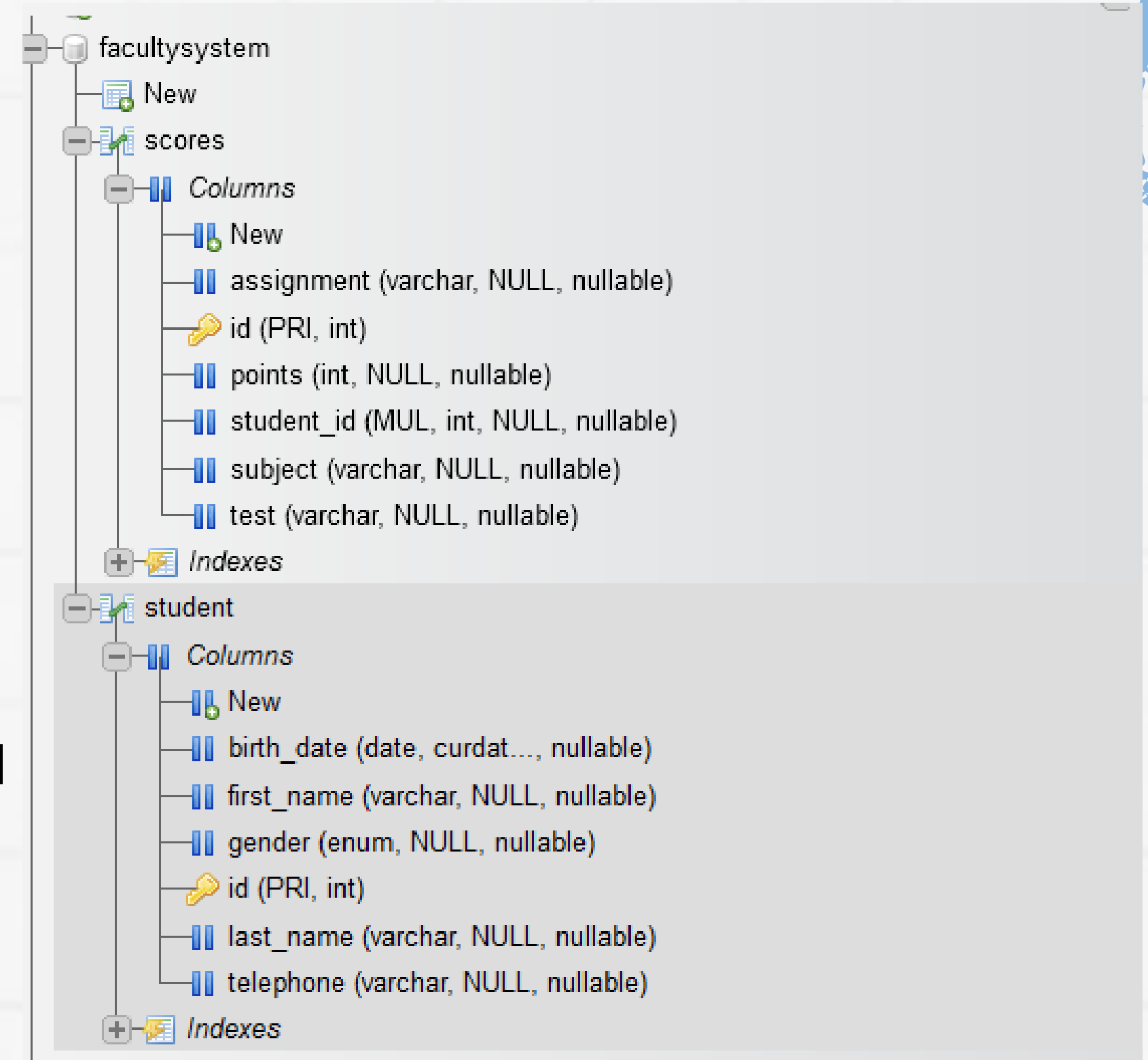
MySQL

Presented by Mayar Magdy

First Execute these queries

```
CREATE TABLE student ( id INT AUTO_INCREMENT PRIMARY KEY, name VARCHAR(50);
```

```
CREATE TABLE scores ( id INT AUTO_INCREMENT PRIMARY KEY, student_id INT, subject VARCHAR(50), assignment VARCHAR(50), test VARCHAR(50), points INT, FOREIGN KEY (student_id) REFERENCES student(id) );
```



01.

Add gender column for the student table.
It holds two value (male or female).

```
ALTER TABLE student ADD COLUMN  
gender ENUM('male', 'female');
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0009 seconds.)

```
ALTER TABLE student ADD COLUMN gender ENUM('male', 'female');
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

02.

Add telephone for the students.

```
ALTER TABLE students ADD COLUMN  
telephone VARCHAR(20);
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0043 seconds.)

```
ALTER TABLE student ADD COLUMN telephone VARCHAR(20);
```

[Edit inline] [Edit] [Create PHP code]

03.

Add birth date column for the student table.

```
ALTER TABLE student ADD COLUMN  
birth_date DATE DEFAULT  
CURRENT_DATE;
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0009 seconds.)

```
ALTER TABLE student ADD COLUMN gender ENUM('male', 'female');
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

04.

Delete the name column and replace it with first name and last name.

```
ALTER TABLE student  
DROP COLUMN name,  
ADD COLUMN first_name  
VARCHAR(50) FIRST,  
ADD COLUMN last_name VARCHAR(50)  
AFTER first_name;
```

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0011 seconds.)

```
ALTER TABLE student DROP COLUMN name, ADD COLUMN first_name VARCHAR(50) FIRST, ADD COLUMN last_name VARCHAR(50) AFTER first_name;
```

[Edit inline] [Edit] [Create PHP code]

05.

Methods 1

```
#by values
INSERT INTO student (first_name,last_name,
telephone,birth_date,gender) VALUES
('Ali','omar','0123456789','2000-01-01',
'male');
```

```
INSERT INTO scores (student_id, subject,
assignment, test, points) VALUES
(LAST_INSERT_ID(), 'Math', 'Algebra',
'Midterm', ;(85
```

Insert your classmates' data into the
table
(by 2 different methods!).

✓ 1 row inserted.

Inserted row id: 1 (Query took 0.0012 seconds.)

```
#first method by values INSERT INTO student (first_name,last_name, telephone, birth_date, gender) VALUES ('Ali','omar', '0123456789', '2000-01-01',
'male');
```

[Edit inline] [Edit] [Create PHP code]

✓ 1 row inserted.

Inserted row id: 1 (Query took 0.0059 seconds.)

```
INSERT INTO scores (student_id, subject, assignment, test, points) VALUES (LAST_INSERT_ID(), 'Math', 'Algebra', 'Midterm', 85);
```

[Edit inline] [Edit] [Create PHP code]

05.

Methods 2

```
# Secoand Method by SET
INSERT INTO student SET
first_name = 'Ali',
last_name = 'omar',
telephone = '0123456789',
birth_date = '2000-01-01',
gender = 'male';

INSERT INTO scores SET
student_id = LAST_INSERT_ID(),
subject = 'Math',
assignment = 'Algebra',
test = 'Midterm',
points = 85;
```

**Insert your classmates' data into the table
(by 2 different methods!).**

✓ 1 row inserted.
Inserted row id: 2 (Query took 0.0010 seconds.)

```
# Secoand Method by SET INSERT INTO student SET first_name = 'Ali', last_name = 'omar', telephone = '0123456789', birth_date = '2000-01-01', gender = 'male';
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

✓ 1 row inserted.
Inserted row id: 2 (Query took 0.0042 seconds.)

```
INSERT INTO scores SET student_id = LAST_INSERT_ID(), subject = 'Math', assignment = 'Algebra', test = 'Midterm', points = 85;
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

06.

Update your information by changing
your telephone.

```
UPDATE student  
SET telephone = '01111111'  
WHERE id = 2;
```

✓ 1 row affected. (Query took 0.0010 seconds.)

```
UPDATE student SET telephone = '01111111' WHERE id = 2;
```

[\[Edit inline \]](#) [\[Edit \]](#) [\[Create PHP code \]](#)

07.

Display all students' information.

```
SELECT * FROM student;
```

```
SELECT * FROM student;
```

☐ 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

				first_name	last_name	id	gender	telephone	birth_date		
<input type="checkbox"/>		Edit		Copy		Delete	Ali	omar	1 male	0123456789	2000-01-01
<input type="checkbox"/>		Edit		Copy		Delete	Ali	omar	2 male	011111111	2000-01-01

☐ Check all | With selected: [Edit](#) [Copy](#) [Delete](#) [Export](#)

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

08.

Display male students only.

```
SELECT * FROM student
WHERE gender = 'male';
```

		first_name	last_name	id	gender	telephone	birth_date
<input type="checkbox"/>	Edit	Copy	Delete	Ali	omar	1 male	0123456789 2000-01-01
<input type="checkbox"/>	Edit	Copy	Delete	Ali	omar	2 male	011111111 2000-01-01
<input type="checkbox"/>	Edit	Copy	Delete	Mayar	Magdy	3 female	0133556785 2000-03-01
<input type="checkbox"/>	Check all	With selected:		Edit	Copy	Delete	Export

SELECT * FROM student WHERE gender = 'male';							
<input type="checkbox"/> Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]							
<input type="checkbox"/> Show all Number of rows: 25 Filter rows: Search this table Sort by key: None							
Extra options							
		first_name	last_name	id	gender	telephone	birth_date
<input type="checkbox"/>	Edit	Copy	Delete	Ali	omar	1 male	0123456789 2000-01-01
<input type="checkbox"/>	Edit	Copy	Delete	Ali	omar	2 male	011111111 2000-01-01

09.

Display the number of female students

```
SELECT COUNT(*) AS female_students  
FROM student  
WHERE gender = 'female' LIMIT 0, 25;
```

Your SQL query has been executed successfully.

```
SELECT COUNT(*) AS female_students FROM student WHERE gender = 'female' LIMIT 0, 25;
```

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

Extra options

female_students

1

Query results operations

10.

Display the students who are born before
1992-10-01.

```
SELECT * FROM student
WHERE birth_date < '1992-10-01';
```

					first_name	last_name	id	gender	telephone	birth_date
<input type="checkbox"/>		Edit		Copy		Delete	Ali	omar	1 male	0123456789 2000-01-01
<input type="checkbox"/>		Edit		Copy		Delete	Ali	omar	2 male	011111111 2000-01-01
<input type="checkbox"/>		Edit		Copy		Delete	Mayar	Magdy	3 female	0133556785 2000-03-01
<input type="checkbox"/>		Edit		Copy		Delete	mai	mohamed	4 female	0111456789 1990-10-01
<input type="checkbox"/>		Edit		Copy		Delete	hazem	mohamed	5 male	0111456389 1990-11-01

✓ Showing rows 0 - 1 (2 total, Query took 0.0009 seconds.)

```
SELECT * FROM student WHERE birth_date < '1992-10-01';
```

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

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key:

Extra options

						first_name	last_name	id	gender	telephone	birth_date
<input type="checkbox"/>		Edit		Copy		Delete	mai	mohamed	4 female	0111456789	1990-10-01
<input type="checkbox"/>		Edit		Copy		Delete	hazem	mohamed	5 male	0111456389	1990-11-01

☐ Check all | With selected: Edit Copy Delete Export

11.

Display male students who are born
before 1991-10-01.

```
SELECT * FROM student
WHERE gender = 'male' AND birth_date
< '1991-10-01';
```

```
SELECT * FROM student WHERE gender = 'male' AND birth_date < '1991-10-01';
```

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

☐ Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

				first_name	last_name	id	gender	telephone	birth_date
<input type="checkbox"/>	Edit	Copy	Delete	hazem	mohamed	5	male	0111456389	1990-11-01

☐ Check all | With selected: Edit Copy Delete Export

☐ Show all | Number of rows: 25 | Filter rows: Search this table

12.

Display subjects and their Assignment
sorted by total points.

```
SELECT subject, assignment,  
SUM(points) AS total_points FROM  
scores GROUP BY subject, assignment  
ORDER BY total_points DESC;
```

✓ Showing rows 0 - 3 (4 total, Query took 0.0014 seconds.)

```
SELECT subject, assignment, SUM(points) AS total_points FROM scores GROUP BY subject,  
assignment ORDER BY total_points DESC;
```

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

☐ Show all | Number of rows: 25 ▾ Filter rows: Search this table

Extra options

				subject	assignment	total_points
<input type="checkbox"/>	Edit	Copy	Delete	Math	Algebra	370
<input type="checkbox"/>	Edit	Copy	Delete	Programming 1	Arrays	99
<input type="checkbox"/>	Edit	Copy	Delete	Math	Geometry	64
<input type="checkbox"/>	Edit	Copy	Delete	Discrete Math	Arrays	55

☐ Check all With selected: Edit Copy Delete Export

13.

Display the subject with highest
total point

```
SELECT subject, SUM(points) AS  
totalPoints FROM scores GROUP BY  
subject ORDER BY totalPoints DESC  
LIMIT 1;
```

✓ Showing rows 0 - 0 (1 total, Query took 0.0008 seconds.)

```
SELECT subject, SUM(points) AS totalPoints FROM scores GROUP BY  
subject ORDER BY totalPoints DESC LIMIT 1;
```

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

Extra options

	subject	totalPoints
<input type="checkbox"/> Edit Copy Delete	Math	434

↑ ☐ Check all With selected: Edit Copy Delete Export

14.

.Display students' names that begin with A.

```
SELECT first_name, last_name FROM
student
WHERE first_name LIKE 'A%';
```

✓ Showing rows 0 - 1 (2 total, Query took 0.0009 seconds.)

```
SELECT first_name, last_name FROM student WHERE first_name LIKE 'A%';
```

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

☐ Show all

Number of rows:

25

Filter rows:

Search this table

Sort by key:

Extra options



first_name

last_name



Edit



Copy



Delete

Ali

omar



Edit



Copy



Delete

Ali

omar



Check all

With selected:



Edit



Copy



Delete



Export

15.

Display the number of students' their name is "Mohammed"

```
SELECT COUNT(*) AS  
mohammed_students FROM student  
WHERE first_name = 'Mohammed';
```

Your SQL query has been executed successfully.

```
SELECT COUNT(*) AS mohammed_students FROM student WHERE first_name = 'Mohammed';
```

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

Extra options

mohammed_students

0

16.

Delete students their score is lower than 50 in a particular test.

```
DELETE FROM scores  
WHERE test = 'Midterm' AND points <  
50;
```

✓ 1 row deleted. (Query took 0.0009 seconds.)

```
DELETE FROM scores WHERE test = 'Midterm' AND points < 50;
```

[Edit inline] [Edit] [Cr

17.

Using subquery select the students' who did not attend a test.

```
SELECT * FROM student WHERE id NOT
IN (SELECT student_id FROM scores);
```

Extra options

					id	student_id	subject	assignment	test	points
<input type="checkbox"/>					1	1	Math	Algebra	Midterm	85
<input type="checkbox"/>					2	2	Math	Algebra	Midterm	85
<input type="checkbox"/>					4	3	Math	Algebra	Midterm	100
<input type="checkbox"/>					7	5	Math	Algebra	Midterm	65
<input type="checkbox"/>					8	6	Programming 1	Arrays	Midterm	99
<input type="checkbox"/>					9	6	Discrete Math	Arrays	Midterm	55
<input type="checkbox"/>					10	6	Math	Geometry	Midterm	64

☐ Check all
 With selected: Edit Copy Delete Export

Showing rows 0 - 1 (2 total, Query took 0.0011 seconds.)

```
SELECT * FROM student WHERE id NOT IN (SELECT student_id FROM scores);
```

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

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key:

Extra options

					first_name	last_name	id	gender	telephone	birth_date
<input type="checkbox"/>					mai	mohamed	4	female	0111456789	1990-10-01
<input type="checkbox"/>					Reem	kamal	7	female	0103456787	2000-05-01

☐ Check all
 With selected: Edit Copy Delete Export

My instructor **Mariem Hady**

Thank you for your guidance and support.

