

# COMMANDS

```
mysql -u root -p
```

```
show databases;
```

```
create database CSE370;
```

```
use CSE370;
```

```
CREATE TABLE Lab_Grades
```

```
(  
std_id char(4),  
name varchar(30),  
major char(3),  
section char(1),  
days_present int,  
project_marks double,  
cgpa decimal(3,2),  
submission_date date  
);
```

```
SHOW TABLES;
```

```
DESCRIBE Lab_Grades;
```

```
INSERT INTO Lab_Grades values  
( 's001', 'Abir', 'CS', '1', 10, 18.5, 3.91, '2018-09-15'),
```

```
('s002', 'Nafis', 'CSE', '1', 12, 20, 3.86, '2018-08-15'),  
( 's003', 'Tasneem', 'CS', '1', 8, 18, 3.57, '2018-09-18'),  
( 's004', 'Nahid', 'ECE', '2', 7, 16.5, 3.25, '2018-08-20'),  
( 's005', 'Arafat', 'CS', '2', 11, 20, 4, '2018-09-13'),  
( 's006', 'Tasneem', 'CSE', '1', 12, 17.5, 3.7, '2018-08-15'),  
( 's007', 'Muhtadi', 'ECE', '1', 10, 19, 3.67, '2018-09-16'),  
( 'S008', 'Farhana', 'CSE', '2', 6, 15, 2.67, '2018-08-16'),  
( 's009', 'Naima', 'CSE', '2', 12, 20, 3.7, '2018-08-14');
```

```
SELECT*FROM Lab_Grades;
```

```
ALTER TABLE Lab_Grades add project_title char(10);
```

```
ALTER TABLE Lab_Grades MODIFY COLUMN project_title varchar(50);
```

```
ALTER TABLE Lab_Grades DROP COLUMN project_title;
```

```
ALTER TABLE Lab_Grades CHANGE submission_date sub_date date;
```

```
UPDATE Lab_Grades SET major = 'CSE' WHERE name = 'Arafat';
```

```
UPDATE Lab_Grades SET name = 'Naheed', project_marks = 16 where std_id = 's004';
```

```
DELETE FROM Lab_Grades WHERE Name = 'Naima';
```

```
DELETE FROM Lab_Grades WHERE days_present < 8;
```

```
SELECT std_id, name, project_marks FROM Lab_Grades;
```

```
SELECT name, project_marks+days_present*5/12 AS total_makrs FROM Lab_Grades;
```

SELECT UPPER(name), LOWER(name) from Lab\_Grades;

SELECT major FROM Lab\_Grades;

SELECT DISTINCT major FROM Lab\_Grades;

SELECT\*FROM Lab\_Grades ORDER BY name;

SELECT \* FROM Lab\_Grades ORDER BY name DESC, sub\_date ASC;

SELECT name, project\_marks FROM Lab\_Grades WHERE major = 'CSE';

SELECT name, days\_present, project\_marks FROM Lab\_Grades WHERE project\_marks > 17;

SELECT name, project\_marks FROM Lab\_Grades WHERE project\_marks BETWEEN 17 and 19;

SELECT \* FROM Lab\_Grades WHERE project\_marks > 18 and sub\_date BETWEEN '2018-08-01' and '2018-08-31';

SELECT \* FROM Lab\_Grades WHERE project\_marks > 18 and sub\_date not BETWEEN '2018-08-01' and '2018-08-31';

SELECT\*FROM Lab\_Grades WHERE name like 'a%';

SELECT\*FROM Lab\_Grades WHERE name like '%a%a%';

Select \* from Lab\_Grades where Name like 'a\_\_\_\_';

# SHELL

```
# mysql -u root -p
```

```
Enter password: Just press Enter
```

```
MariaDB [(none)]> show databases;
```

```
MariaDB [(none)]> create database CSE370_LAB01;
```

```
Query OK, 1 row affected (0.001 sec)
```

```
MariaDB [(none)]> use CSE370_LAB01;
```

```
Database changed
```

```
MariaDB [CSE370_LAB01]> CREATE TABLE Lab_Grades
```

```
-> (
```

```
-> std_id char(4),
```

```
-> name varchar(30),
```

```
-> major char(3),
```

```
-> section char(1),
```

```
-> days_present int,
```

```
-> project_marks double,
```

```
-> cgpa decimal(3,2),
```

```
-> submission_date date
```

```
-> );
```

```
Query OK, 0 rows affected (0.013 sec)
```

```
MariaDB [CSE370_LAB01]> SHOW TABLES;
```

```
+-----+
```

```
| Tables_in_cse370_lab01 |
```

```
+-----+
| lab_grades      |
+-----+
1 row in set (0.000 sec)
```

MariaDB [CSE370\_LAB01]> DESCRIBE Lab\_Grades;

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| std_id     | char(4)   | YES  |     | NULL    |       |
| name       | varchar(30) | YES  |     | NULL    |       |
| major      | char(3)   | YES  |     | NULL    |       |
| section    | char(1)   | YES  |     | NULL    |       |
| days_present | int(11)   | YES  |     | NULL    |       |
| project_marks | double    | YES  |     | NULL    |       |
| cgpa       | decimal(3,2) | YES  |     | NULL    |       |
| submission_date | date      | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.008 sec)
```

MariaDB [CSE370\_LAB01]> INSERT INTO Lab\_Grades values

```
-> ('s001', 'Abir', 'CS', '1', 10, 18.5, 3.91, '2018-09-15'),
-> ('s002', 'Nafis', 'CSE', '1', 12, 20, 3.86, '2018-08-15'),
-> ('s003', 'Tasneem', 'CS', '1', 8, 18, 3.57, '2018-09-18'),
-> ('s004', 'Nahid', 'ECE', '2', 7, 16.5, 3.25, '2018-08-20'),
-> ('s005', 'Arafat', 'CS', '2', 11, 20, 4, '2018-09-13'),
-> ('s006', 'Tasneem', 'CSE', '1', 12, 17.5, 3.7, '2018-08-15'),
-> ('s007', 'Muhtadi', 'ECE', '1', 10, 19, 3.67, '2018-09-16'),
-> ('S008', 'Farhana', 'CSE', '2', 6, 15, 2.67, '2018-08-16'),
-> ('s009', 'Naima', 'CSE', '2', 12, 20, 3.7, '2018-08-14');
```

Query OK, 9 rows affected (0.025 sec)

Records: 9 Duplicates: 0 Warnings: 0

MariaDB [CSE370\_LAB01]> SELECT\*FROM Lab\_Grades;

std_id	name	major	section	days_present	project_marks	cgpa	submission_date
s001	Abir	CS	1	10	18.5	3.91	2018-09-15
s002	Nafis	CSE	1	12	20	3.86	2018-08-15
s003	Tasneem	CS	1	8	18	3.57	2018-09-18
s004	Nahid	ECE	2	7	16.5	3.25	2018-08-20
s005	Arafat	CS	2	11	20	4.00	2018-09-13
s006	Tasneem	CSE	1	12	17.5	3.70	2018-08-15
s007	Muhtadi	ECE	1	10	19	3.67	2018-09-16
S008	Farhana	CSE	2	6	15	2.67	2018-08-16
s009	Naima	CSE	2	12	20	3.70	2018-08-14

9 rows in set (0.000 sec)

MariaDB [CSE370\_LAB01]> ALTER TABLE Lab\_Grades add project\_title char(10);

Query OK, 0 rows affected (0.006 sec)

Records: 0 Duplicates: 0 Warnings: 0

MariaDB [CSE370\_LAB01]> ALTER TABLE Lab\_Grades MODIFY COLUMN project\_title  
varchar(50);

Query OK, 9 rows affected (0.041 sec)

Records: 9 Duplicates: 0 Warnings: 0

MariaDB [CSE370\_LAB01]> SELECT\*FROM Lab\_Grades;

std_id	name	major	section	days_present	project_marks	cgpa	submission_date	project_title
--------	------	-------	---------	--------------	---------------	------	-----------------	---------------

```

+-----+-----+-----+-----+-----+-----+-----+-----+
| s001 | Abir | CS | 1 | 10 | 18.5 | 3.91 | 2018-09-15 | NULL |
| s002 | Nafis | CSE | 1 | 12 | 20 | 3.86 | 2018-08-15 | NULL |
| s003 | Tasneem | CS | 1 | 8 | 18 | 3.57 | 2018-09-18 | NULL |
| s004 | Nahid | ECE | 2 | 7 | 16.5 | 3.25 | 2018-08-20 | NULL |
| s005 | Arafat | CS | 2 | 11 | 20 | 4.00 | 2018-09-13 | NULL |
| s006 | Tasneem | CSE | 1 | 12 | 17.5 | 3.70 | 2018-08-15 | NULL |
| s007 | Muhtadi | ECE | 1 | 10 | 19 | 3.67 | 2018-09-16 | NULL |
| S008 | Farhana | CSE | 2 | 6 | 15 | 2.67 | 2018-08-16 | NULL |
| s009 | Naima | CSE | 2 | 12 | 20 | 3.70 | 2018-08-14 | NULL |
+-----+-----+-----+-----+-----+-----+-----+-----+
9 rows in set (0.001 sec)

```

```

MariaDB [CSE370_LAB01]> ALTER TABLE Lab_Grades DROP COLUMN project_title;
Query OK, 0 rows affected (0.005 sec)
Records: 0 Duplicates: 0 Warnings: 0

```

```

MariaDB [CSE370_LAB01]> ALTER TABLE Lab_Grades CHANGE submission_date
sub_date date;
Query OK, 0 rows affected (0.005 sec)
Records: 0 Duplicates: 0 Warnings: 0

```

```

MariaDB [CSE370_LAB01]> UPDATE Lab_Grades SET major = 'CSE' WHERE name =
'Arafat';
Query OK, 1 row affected (0.003 sec)
Rows matched: 1 Changed: 1 Warnings: 0

```

```

MariaDB [CSE370_LAB01]> UPDATE Lab_Grades SET name = 'Naheed', project_marks = 16
where std_id = 's004';
Query OK, 1 row affected (0.002 sec)
Rows matched: 1 Changed: 1 Warnings: 0

```

MariaDB [CSE370\_LAB01]> DELETE FROM Lab\_Grades where name = 'namia';

Query OK, 0 rows affected (0.000 sec)

MariaDB [CSE370\_LAB01]> SELECT\*FROM Lab\_Grades;

std_id	name	major	section	days_present	project_marks	cgpa	sub_date
s001	Abir	CS	1	10	18.5	3.91	2018-09-15
s002	Nafis	CSE	1	12	20	3.86	2018-08-15
s003	Tasneem	CS	1	8	18	3.57	2018-09-18
s004	Naheed	ECE	2	7	16	3.25	2018-08-20
s005	Arafat	CSE	2	11	20	4.00	2018-09-13
s006	Tasneem	CSE	1	12	17.5	3.70	2018-08-15
s007	Muhtadi	ECE	1	10	19	3.67	2018-09-16
S008	Farhana	CSE	2	6	15	2.67	2018-08-16
s009	Naima	CSE	2	12	20	3.70	2018-08-14

9 rows in set (0.000 sec)

MariaDB [CSE370\_LAB01]> DELETE FROM Lab\_Grades WHERE Name = 'Naima';

Query OK, 1 row affected (0.003 sec)

MariaDB [CSE370\_LAB01]> DELETE FROM Lab\_Grades WHERE days\_present < 8;

Query OK, 2 rows affected (0.003 sec)

MariaDB [CSE370\_LAB01]> SELECT std\_id, name, project\_marks FROM Lab\_Grades;

std_id	name	project_marks
s001	Abir	18.5



s002	Nafis	20	
s003	Tasneem	18	
s005	Arafat	20	
s006	Tasneem	17.5	
s007	Muhtadi	19	

+-----+-----+-----+

6 rows in set (0.000 sec)

MariaDB [CSE370\_LAB01]> SELECT name, project\_marks+days\_present\*5/12 AS total\_makrs FROM Lab\_Grades;

name	total_makrs	
------	-------------	--

+-----+-----+

Abir	22.666666666	
Nafis	25	
Tasneem	21.333333333	
Arafat	24.583333333	
Tasneem	22.5	
Muhtadi	23.166666666	

+-----+-----+

6 rows in set (0.000 sec)

MariaDB [CSE370\_LAB01]> SELECT UPPER(name), LOWER(name) from Lab\_Grades;

UPPER(name)	LOWER(name)	
-------------	-------------	--

+-----+-----+

ABIR	abir	
NAFIS	nafis	
TASNEEM	tasneem	
ARAFAT	arafat	
TASNEEM	tasneem	

```
| MUHTADI | muhtadi |
```

```
+-----+-----+
```

6 rows in set (0.000 sec)

```
MariaDB [CSE370_LAB01]> SELECT major FROM Lab_Grades;
```

```
+-----+
```

```
| major |
```

```
+-----+
```

```
| CS |
```

```
| CSE |
```

```
| CS |
```

```
| CSE |
```

```
| CSE |
```

```
| ECE |
```

```
+-----+
```

6 rows in set (0.000 sec)

```
MariaDB [CSE370_LAB01]> SELECT DISTINCT major FROM Lab_Grades;
```

```
+-----+
```

```
| major |
```

```
+-----+
```

```
| CS |
```

```
| CSE |
```

```
| ECE |
```

```
+-----+
```

3 rows in set (0.000 sec)

```
MariaDB [CSE370_LAB01]> SELECT*FROM Lab_Grades ORDER BY name;
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+
```

```
| std_id | name | major | section | days_present | project_marks | cgpa | sub_date |
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+
```

s001	Abir	CS	1	10	18.5	3.91	2018-09-15
s005	Arafat	CSE	2	11	20	4.00	2018-09-13
s007	Muhtadi	ECE	1	10	19	3.67	2018-09-16
s002	Nafis	CSE	1	12	20	3.86	2018-08-15
s003	Tasneem	CS	1	8	18	3.57	2018-09-18
s006	Tasneem	CSE	1	12	17.5	3.70	2018-08-15

6 rows in set (0.000 sec)

MariaDB [CSE370\_LAB01]> SELECT \* FROM Lab\_Grades ORDER BY name DESC, sub\_date ASC;

std_id	name	major	section	days_present	project_marks	cgpa	sub_date
s006	Tasneem	CSE	1	12	17.5	3.70	2018-08-15
s003	Tasneem	CS	1	8	18	3.57	2018-09-18
s002	Nafis	CSE	1	12	20	3.86	2018-08-15
s007	Muhtadi	ECE	1	10	19	3.67	2018-09-16
s005	Arafat	CSE	2	11	20	4.00	2018-09-13
s001	Abir	CS	1	10	18.5	3.91	2018-09-15

6 rows in set (0.000 sec)

MariaDB [CSE370\_LAB01]> SELECT name, project\_marks FROM Lab\_Grades WHERE major = 'CSE';

name	project_marks
Nafis	20
Arafat	20
Tasneem	17.5

```
+-----+-----+
```

3 rows in set (0.000 sec)

```
MariaDB [CSE370_LAB01]> SELECT name, days_present, project_marks FROM Lab_Grades
WHERE project_marks > 17;
```

```
+-----+-----+-----+
```

```
| name | days_present | project_marks |
```

```
+-----+-----+-----+
```

```
| Abir | 10 | 18.5 |
```

```
| Nafis | 12 | 20 |
```

```
| Tasneem | 8 | 18 |
```

```
| Arafat | 11 | 20 |
```

```
| Tasneem | 12 | 17.5 |
```

```
| Muhtadi | 10 | 19 |
```

```
+-----+-----+-----+
```

6 rows in set (0.000 sec)

```
MariaDB [CSE370_LAB01]> SELECT name, project_marks FROM Lab_Grades WHERE
project_marks BETWEEN 17 and 19;
```

```
+-----+-----+
```

```
| name | project_marks |
```

```
+-----+-----+
```

```
| Abir | 18.5 |
```

```
| Tasneem | 18 |
```

```
| Tasneem | 17.5 |
```

```
| Muhtadi | 19 |
```

```
+-----+-----+
```

4 rows in set (0.000 sec)

```
MariaDB [CSE370_LAB01]> SELECT * FROM Lab_Grades WHERE major in ('CSE', 'CS');
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+
```

std_id	name	major	section	days_present	project_marks	cgpa	sub_date
s001	Abir	CS	1	10	18.5	3.91	2018-09-15
s002	Nafis	CSE	1	12	20	3.86	2018-08-15
s003	Tasneem	CS	1	8	18	3.57	2018-09-18
s005	Arafat	CSE	2	11	20	4.00	2018-09-13
s006	Tasneem	CSE	1	12	17.5	3.70	2018-08-15

5 rows in set (0.000 sec)

MariaDB [CSE370\_LAB01]> SELECT \* FROM Lab\_Grades WHERE project\_marks > 18 and sub\_date BETWEEN '2018-08-01' and '2018-08-31';

std_id	name	major	section	days_present	project_marks	cgpa	sub_date
s002	Nafis	CSE	1	12	20	3.86	2018-08-15

1 row in set (0.000 sec)

MariaDB [CSE370\_LAB01]> SELECT \* FROM Lab\_Grades WHERE project\_marks > 18 and sub\_date not BETWEEN '2018-08-01' and '2018-08-31';

std_id	name	major	section	days_present	project_marks	cgpa	sub_date
s001	Abir	CS	1	10	18.5	3.91	2018-09-15
s005	Arafat	CSE	2	11	20	4.00	2018-09-13
s007	Muhtadi	ECE	1	10	19	3.67	2018-09-16

3 rows in set (0.000 sec)

MariaDB [CSE370\_LAB01]> SELECT \* FROM Lab\_Grades WHERE name like 'a%';

```

+-----+-----+-----+-----+-----+-----+-----+-----+
| std_id | name  | major | section | days_present | project_marks | cgpa | sub_date |
+-----+-----+-----+-----+-----+-----+-----+-----+
| s001   | Abir  | CS    | 1       | 10          | 18.5          | 3.91 | 2018-09-15 |
| s005   | Arafat | CSE   | 2       | 11          | 20            | 4.00 | 2018-09-13 |
+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set (0.000 sec)

```

MariaDB [CSE370\_LAB01]> SELECT\*FROM Lab\_Grades WHERE name like '%a%a%';

```

+-----+-----+-----+-----+-----+-----+-----+-----+
| std_id | name  | major | section | days_present | project_marks | cgpa | sub_date |
+-----+-----+-----+-----+-----+-----+-----+-----+
| s005   | Arafat | CSE   | 2       | 11          | 20            | 4.00 | 2018-09-13 |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.000 sec)

```

MariaDB [CSE370\_LAB01]> Select \* from Lab\_Grades where Name like 'a\_\_\_\_';  
'>