

CREATE TWO OR MORE TABLES:

SCRNSHOT OF CREATED DATABASE AND TWO TABLES .

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following code:

```
34 mobile int,salary int
35 );
36 insert into three values
37 (1,'Kiruthika',362758,30000),
38 (2,'karthika',52738,40000),
39 (3,'Kishore',93456,10500),
40 (4, 'Koushika',73928,12000);
41 select * from three;
42 select e_name,age,email
```

The Result Grid shows the following data:

s_no	e_name	mobile	salary
1	Kiruthika	362758	30000
2	karthika	52738	40000
3	Kishore	93456	10500
4	Koushika	73928	12000

The Action Output pane shows the following messages:

#	Time	Action	Message	Duration / Fetch
7	17:36:45	drop table one	0 row(s) affected	0.250 sec
8	17:36:48	create table three(s_no int not null, e_name varchar(50), mobile int,salary int )	Error Code: 1050. Table 'three' already exists	0.000 sec
9	17:36:54	select * from three LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec

1.SUB QUERY TO FIND MIN AND MAX SALARY:

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following code:

```
46
47 -- aggregate function;
48
49 select max(salary) from three;
50 select min(age) from two;
51 SELECT MAX(salary) AS second_highest_salary
52 FROM three
53 WHERE salary < (SELECT MAX(salary) FROM three);
54 select count(*) from three;
```

The Result Grid shows the following data:

max(salary)
40000

The Action Output pane shows the following messages:

#	Time	Action	Message	Duration / Fetch
9	17:36:54	select * from three LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
10	17:39:24	select * from two LIMIT 0, 2000	8 row(s) returned	0.000 sec / 0.000 sec
11	17:39:42	select max(salary) from three LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

46
47 -- aggregate function;
48
49 • select max(salary) from three;
50 • select min(age) from two;
51 • SELECT MAX(salary) AS second_highest_salary
52 FROM three
53 WHERE salary < (SELECT MAX(salary) FROM three);
54 • select count(*) from three;

```

Result Grid

min(age)
21

Result 4

Output

#	Time	Action	Message	Duration / Fetch
10	17:39:24	select * from two LIMIT 0, 2000	8 row(s) returned	0.000 sec / 0.000 sec
11	17:39:42	select max(salary) from three LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec
12	17:41:06	select min(age) from two LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec

## 2.FIND SECOND HIGHEST SALARY:

MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

49 • select max(salary) from three;
50 • select min(age) from two;
51 • SELECT MAX(salary) AS second_highest_salary
52 FROM three
53 WHERE salary < (SELECT MAX(salary) FROM three);
54 • select count(*) from three;
55 • select sum(salary)
56 from three;
57 • select avg(age)

```

Result Grid

second_highest_salary
30000

Result 5

Output

#	Time	Action	Message	Duration / Fetch
11	17:39:42	select max(salary) from three LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec
12	17:41:06	select min(age) from two LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec
13	17:41:41	SELECT MAX(salary) AS second_highest_salary FROM three WHERE salary < (SELECT MAX(salary) FROM three ...	1 row(s) returned	0.000 sec / 0.000 sec

## 3.IMPLEMENTATION OF ALL JOINS:

## INNER JOIN

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
-- all types of join;

select a.s_no,a.mobile,b.e_name from two a
inner join three b
on a.s_no=b.s_no order by b.e_name;

SELECT b.e_name,a.s_no,a.mobile
FROM two a
```

The Result Grid displays the following data:

s_no	mobile	e_name
2	52738	karthika
1	362758	Kiruthika
3	93456	Kishore
4	73928	Koushika

The Action Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
19	17:43:12	create table two(s_no int not null, mobile int, age int, email varchar(50))	0 row(s) affected	0.343 sec
20	17:43:17	insert into two values (1,362758,23,'skee@gmail.com'), (2,52738, 54,'karthi@gmail.com'), (3,93456,32,'kish@gmail.com'), (4,73928, 25,'koushika@gmail.com')	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.063 sec
21	17:43:25	select a.s_no,a.mobile,b.e_name from two a inner join three b on a.s_no=b.s_no order by b.e_name LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec

## LEFT JOIN

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
select a.s_no,a.mobile,b.e_name from two a
inner join three b
on a.s_no=b.s_no order by b.e_name;

SELECT b.e_name,a.s_no,a.mobile
FROM two a
LEFT JOIN three b
ON a.s_no = b.s_no;
```

The Result Grid displays the following data:

e_name	s_no	mobile
Kiruthika	1	362758
karthika	2	52738
Kishore	3	93456
Koushika	4	73928

The Action Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
20	17:43:17	insert into two values (1,362758,23,'skee@gmail.com'), (2,52738, 54,'karthi@gmail.com'), (3,93456,32,'kish@gmail.com'), (4,73928, 25,'koushika@gmail.com')	4 row(s) affected Records: 4 Duplicates: 0 Warnings: 0	0.063 sec
21	17:43:25	select a.s_no,a.mobile,b.e_name from two a inner join three b on a.s_no=b.s_no order by b.e_name LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
22	17:43:57	SELECT b.e_name,a.s_no,a.mobile FROM two a LEFT JOIN three b ON a.s_no = b.s_no LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec

## RIGHT JOIN

MySQL Workbench

Local instance MySQL80 x

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Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

68 LEFT JOIN three b
69 ON a.s_no = b.s_no;
70
71 SELECT b.e_name,a.s_no,a.mobile
72 FROM two a
73 RIGHT JOIN three b
74 ON a.s_no = b.s_no;
75
76

```

Result Grid

e_name	s_no	mobile
Kiruthika	1	362758
karthika	2	52738
Kishore	3	93456
Koushika	4	73928

Result 9 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
21	17:43:25	select a.s_no,a.mobile,b.e_name from two a inner join three b on a.s_no=b.s_no order by b.e_name LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
22	17:43:57	SELECT b.e_name,a.s_no,a.mobile FROM two a LEFT JOIN three b ON a.s_no = b.s_no LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
23	17:44:24	SELECT b.e_name,a.s_no,a.mobile FROM two a RIGHT JOIN three b ON a.s_no = b.s_no LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec

Sunset 5:44 PM 2/25/2025

#### 4. QUERY FOR AGGREGATE FUNCTIONS:

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

50 select min(age) from two;
51 SELECT MAX(salary) AS second_highest_salary
52 FROM three
53 WHERE salary < (SELECT MAX(salary) FROM three);
54 select count(*) from three;
55 select sum(salary)
56 from three;
57 select avg(age)
58 from two;

```

Result Grid

count(*)
4

Result 10 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
22	17:43:57	SELECT b.e_name,a.s_no,a.mobile FROM two a LEFT JOIN three b ON a.s_no = b.s_no LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
23	17:44:24	SELECT b.e_name,a.s_no,a.mobile FROM two a RIGHT JOIN three b ON a.s_no = b.s_no LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
24	17:44:44	select count(*) from three LIMIT 0, 2000	1 row(s) returned	0.015 sec / 0.000 sec

Sunset 5:44 PM 2/25/2025

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

50 select min(age) from two;
51 SELECT MAX(salary) AS second_highest_salary
52 FROM three
53 WHERE salary < (SELECT MAX(salary) FROM three);
54 select count(*) from three;
55 select sum(salary)
56 from three;
57 select avg(age)
58 from two;

```

Result Grid

sum(salary)
92500

Result 11

Output

#	Time	Action	Message	Duration / Fetch
23	17:44:24	SELECT b.e_name,a.s_no,a.mobile FROM two a RIGHT JOIN three b ON a.s_no = b.s_no LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
24	17:44:44	select count(*) from three LIMIT 0, 2000	1 row(s) returned	0.015 sec / 0.000 sec
25	17:46:15	select sum(salary) from three LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec

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MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

53 WHERE salary < (SELECT MAX(salary) FROM three);
54 select count(*) from three;
55 select sum(salary)
56 from three;
57 select avg(age)
58 from two;
59
60 -- all types of join;
61

```

Result Grid

avg(age)
32.5000

Result 12

Output

#	Time	Action	Message	Duration / Fetch
24	17:44:44	select count(*) from three LIMIT 0, 2000	1 row(s) returned	0.015 sec / 0.000 sec
25	17:46:15	select sum(salary) from three LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec
26	17:46:28	select avg(age) from two LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec

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## 5. QUERY FOR STRING FUNCTIONS:

MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

71 SELECT b.e_name,a.s_no,a.mobile
72 FROM two a
73 RIGHT JOIN three b
74 ON a.s_no = b.s_no;
75
76
77 -- string functions;
78 select concat(e_name,'-',salary) as name_with_salary from three;
79 select substring(email,1,6) as trimmed from two;

```

Result Grid

name_with_salary
Kruthika - 30000
karthika - 40000
Kishore - 10500
Koushika - 12000

Result 13

Output

Action Output

#	Time	Action	Message	Duration / Fetch
25	17:46:15	select sum(salary) from three LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec
26	17:46:28	select avg(sage) from two LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec
27	17:46:55	select concat(e_name,'-',salary) as name_with_salary from three LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec

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MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

72 FROM two a
73 RIGHT JOIN three b
74 ON a.s_no = b.s_no;
75
76
77 -- string functions;
78 select concat(e_name,'-',salary) as name_with_salary from three;
79 select substring(email,1,6) as trimmed from two;
80 select unnc(e_name) as name from three;

```

Result Grid

trimmed
skee@g
karthi
kash@
kou@gm

Result 14

Output

Action Output

#	Time	Action	Message	Duration / Fetch
26	17:46:28	select avg(sage) from two LIMIT 0, 2000	1 row(s) returned	0.000 sec / 0.000 sec
27	17:46:55	select concat(e_name,'-',salary) as name_with_salary from three LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
28	17:47:13	select substring(email,1,6) as trimmed from two LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec

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MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

73 RIGHT JOIN three b
74 ON a.s_no = b.s_no;
75
76
77 -- string functions;
78 select concat(e_name, ' - ', salary) as name_with_salary from three;
79 select substring(email, 1, 6) as trimmed from two;
80 select upper(e_name) as name from three;
81 select instr(e_name, 'a') as indexs from three;

```

Result Grid

name
KIRUTHIKA
KARTHICA
KISHORE
KOUSHIKA

Result 15

Output

#	Time	Action	Message	Duration / Fetch
27	17:46:55	select concat(e_name, ' - ', salary) as name_with_salary from three LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
28	17:47:13	select substring(email, 1, 6) as trimmed from two LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
29	17:47:26	select upper(e_name) as name from three LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec

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MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Query 1 SQL File 1\* SQL File 4\* SQL File 5\* SQL File 6\*

```

74 ON a.s_no = b.s_no;
75
76
77 -- string functions;
78 select concat(e_name, ' - ', salary) as name_with_salary from three;
79 select substring(email, 1, 6) as trimmed from two;
80 select upper(e_name) as name from three;
81 select instr(e_name, 'a') as indexs from three;
82

```

Result Grid

indexs
9
2
0
8

Result 16

Output

#	Time	Action	Message	Duration / Fetch
28	17:47:13	select substring(email, 1, 6) as trimmed from two LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
29	17:47:26	select upper(e_name) as name from three LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec
30	17:47:38	select instr(e_name, 'a') as indexs from three LIMIT 0, 2000	4 row(s) returned	0.000 sec / 0.000 sec

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