

# Create two or more tables

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

```
1. create database Task1;
2. use Task1;
3. create table book(id int auto_increment primary key,name varchar(50) not null,category varchar(50),addedon timestamp default current_timestamp);
4. insert into book values(1,'Eiffel tower','travel',curdate()),(2,'grand canyon','nature','2024-02-20'),(3,'tokyo skytree','landmark',curdate()),(4,'amazon rainforest','adventure','2024-01-15'),(5,'grand barrier reef','nature','2025-02-25 00:00:00');
5. select * from book;
```

The Result Grid shows the data for the 'book' table:

id	name	category	addedon
1	Eiffel tower	travel	2025-02-25 00:00:00
2	grand canyon	nature	2024-02-20 00:00:00
3	tokyo skytree	landmark	2025-02-25 00:00:00
4	amazon rainforest	adventure	2024-01-15 00:00:00
5	grand barrier reef	nature	2025-02-25 00:00:00

The Output pane shows the following error message:

```
24 16:22:29 create table book(id int auto_increment primary key,name varchar(50) not null,category varchar(50),addedon timestamp default current_timestamp); Error Code: 1067. Invalid default value for 'addedon' 0.000 sec / 0.000 sec
25 16:23:22 create table book(id int auto_increment primary key,name varchar(50) not null,category varchar(50),addedon timestamp default current_timestamp); 0 rows(s) affected 0.359 sec
26 16:30:01 insert into book values(1,'Eiffel tower','travel',curdate()),(2,'grand canyon','nature','2024-02-20'),(3,'tokyo skytree','landmark',curdate()),(4,'amazon rainforest','adventure','2024-01-15'),(5,'grand barrier reef','nature','2025-02-25 00:00:00'); 5 rows(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.078 sec
27 16:30:23 select * from book LIMIT 0, 1000 5 rows(s) returned 0.000 sec / 0.000 sec
```

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

```
1. create database Task1;
2. use Task1;
3. create table book(id int auto_increment primary key,name varchar(50) not null,category varchar(50),addedon timestamp default current_timestamp);
4. insert into book values(1,'Eiffel tower','travel',curdate()),(2,'grand canyon','nature','2024-02-20'),(3,'tokyo skytree','landmark',curdate()),(4,'amazon rainforest','adventure','2024-01-15'),(5,'grand barrier reef','nature','2025-02-25 00:00:00');
5. select * from book;
6. create table snacks(id int auto_increment primary key,s_name varchar(50) not null,type varchar(50),calories int);
7. insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90);
8. select * from snacks;
```

The Result Grid shows the data for the 'snacks' table:

id	s_name	type	calories
1	chips	salty	150
2	chocolate	sweet	200
3	oats	healthy	180
4	popcorn	light	120
5	fruits	healthy	90

The Output pane shows the following error message:

```
27 16:30:23 select * from snacks LIMIT 0, 1000 5 rows(s) returned 0.000 sec / 0.000 sec
28 16:43:13 create table snacks(id int auto_increment primary key,s_name varchar(50) not null,type varchar(50),calories int); 0 rows(s) affected 1.060 sec
29 16:45:45 insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90); 5 rows(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.093 sec
30 16:46:00 select * from snacks LIMIT 0, 1000 5 rows(s) returned 0.000 sec / 0.000 sec
```

## Subquery to find min and max calories

MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 1

```

1 create database Task;
2 use Task;
3 create table book(id int auto_increment primary key,name varchar(50) not null,category varchar(50),addon timestamp default current_timestamp);
4 insert into book values(1,'Eiffel tower','travel',curdate()),(2,'grand canyon','nature','2024-02-20'),(3,'tokyo skytree','landmark',curdate()),(4,'amazon rainforest','adventure','2024-01-15'),(5,'gran
5 select * from book;
6 create table snacks(id int auto_increment primary key,s_name varchar(50) not null,type varchar(50),calories int);
7 insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90);
8 select * from snacks;
9 select * from snacks where calories = (select min(calories) from snacks);

```

Result Grid

#	id	s_name	type	calories
1	5	fruits	healthy	90
2	4	amazon rainforest	adventure	2024-01-15

snacks 3

Output

#	Time	Action	Message	Duration / Fetch
28	16:43:13	create table snacks(id int auto_increment primary key,s_name varchar(50) not null,type varchar(50),calories int)	0 row(s) affected	1.063 sec
29	16:45:45	insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90)	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.093 sec
30	16:46:00	select * from snacks LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
31	16:52:21	select * from snacks where calories = (select min(calories) from snacks) LIMIT 0, 1000	1 row(s) returned	0.047 sec / 0.000 sec

Object Info Session

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MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 2

```

1 create database Task;
2 use Task;
3 create table book(id int auto_increment primary key,name varchar(50) not null,category varchar(50),addon timestamp default current_timestamp);
4 insert into book values(1,'Eiffel tower','travel',curdate()),(2,'grand canyon','nature','2024-02-20'),(3,'tokyo skytree','landmark',curdate()),(4,'amazon rainforest','adventure','2024-01-15'),(5,'gran
5 select * from book;
6 create table snacks(id int auto_increment primary key,s_name varchar(50) not null,type varchar(50),calories int);
7 insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90);
8 select * from snacks;
9 select * from snacks where calories = (select min(calories) from snacks);
10 select * from snacks where calories = (select min(calories) from snacks);

```

Result Grid

#	id	s_name	type	calories
1	2	chocolate	sweet	200

snacks 4

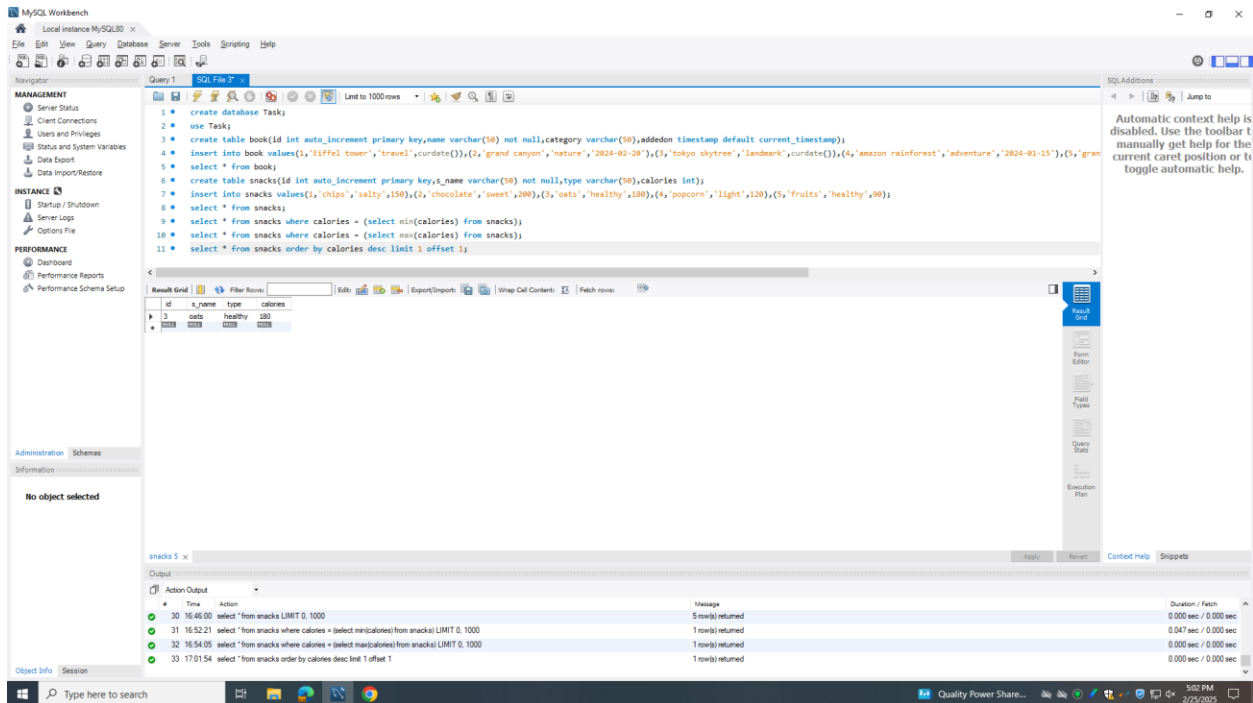
Output

#	Time	Action	Message	Duration / Fetch
29	16:45:45	insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90)	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.093 sec
30	16:46:00	select * from snacks LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
31	16:52:21	select * from snacks where calories = (select min(calories) from snacks) LIMIT 0, 1000	1 row(s) returned	0.047 sec / 0.000 sec
32	16:54:05	select * from snacks where calories = (select min(calories) from snacks) LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

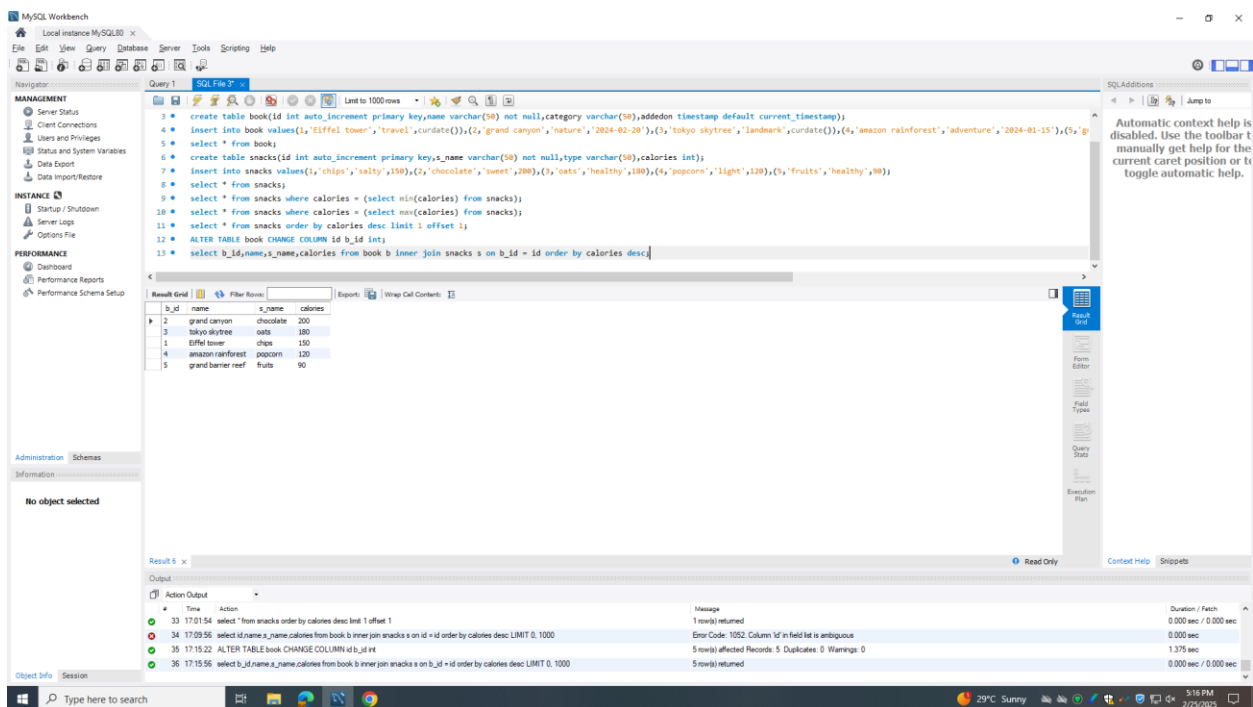
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Second highest calories subquery or limit



Query for implementing all the joins with order by and group by

INNER JOIN



LEFT JOIN

MySQL Workbench

Local instance MySQL80 x

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Query 1 SQL File 3

```

4 * insert into book values(1,'Eiffel tower','travel',curdate()),(2,'grand canyon','nature','2024-02-20'),(3,'tokyo skytree','landmark',curdate()),(4,'amazon rainforest','adventure','2024-01-15'),(5,'grand barrier reef','fruits',curdate());
5 * select * from book;
6 * create table snacks(id int auto_increment primary key,s_name varchar(50) not null,type varchar(50),calories int);
7 * insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90);
8 * select * from snacks;
9 * select * from snacks where calories = (select min(calories) from snacks);
10 * select * from snacks where calories = (select max(calories) from snacks);
11 * select * from snacks order by calories desc limit 1 offset 1;
12 * ALTER TABLE book CHANGE COLUMN id b_id int;
13 * select b_id,name,s_name,calories from book b inner join snacks s on b_id = id order by calories desc;
14 * select b_id,name,s_name,calories from book b left join snacks s on b_id = id order by calories asc;

```

Result Grid

b_id	name	s_name	calories
5	grand barrier reef	fruits	90
4	amazon rainforest	popcorn	120
1	Eiffel tower	chips	150
3	tokyo skytree	oats	180
2	grand canyon	chocolate	200

Output

Result 7

Read Only

Context Help

Snippets

SQL Additions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

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## RIGHT JOIN

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Query 1 SQL File 3

```

5 * select * from book;
6 * create table snacks(id int auto_increment primary key,s_name varchar(50) not null,type varchar(50),calories int);
7 * insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90);
8 * select * from snacks;
9 * select * from snacks where calories = (select min(calories) from snacks);
10 * select * from snacks where calories = (select max(calories) from snacks);
11 * select * from snacks order by calories desc limit 1 offset 1;
12 * ALTER TABLE book CHANGE COLUMN id b_id int;
13 * select b_id,name,s_name,calories from book b inner join snacks s on b_id = id order by calories desc;
14 * select b_id,name,s_name,calories from book b left join snacks s on b_id = id order by calories asc;
15 * select b_id,name,s_name,calories from book b right join snacks s on b_id = id order by calories desc;

```

Result Grid

b_id	name	s_name	calories
2	grand canyon	chocolate	200
3	tokyo skytree	oats	180
1	Eiffel tower	chips	150
4	amazon rainforest	popcorn	120
5	grand barrier reef	fruits	90

Output

Result 8

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Snippets

SQL Additions

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## FULL OUTER JOIN

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Query 1 SQL File 2

```

6 • create table snacks(id int auto_increment primary key,s_name varchar(50) not null,type varchar(50),calories int);
7 • insert into snacks values(1,'chips','salty',150),(2,'chocolate','sweet',200),(3,'oats','healthy',180),(4,'popcorn','light',120),(5,'fruits','healthy',90);
8 • select * from snacks;
9 • select * from snacks where calories = (select min(calories) from snacks);
10 • select * from snacks where calories = (select max(calories) from snacks);
11 • select * from snacks order by calories desc limit 1 offset 1;
12 • ALTER TABLE book CHANGE COLUMN id b_id int;
13 • select b_id,name,s_name,calories from book b inner join snacks s on b_id = id order by calories desc;
14 • select b_id,name,s_name,calories from book b left join snacks s on b_id = id order by calories asc;
15 • select b_id,name,s_name,calories from book b right join snacks s on b_id = id order by calories desc;
16 • select b_id,name,s_name,calories from book b left join snacks s on b_id = id union select b_id,name,s_name,calories from book b right join snacks s on b_id = id order by b_id;

```

Result Grid

b_id	name	s_name	calories
1	Effel tower	chips	150
2	grand canyon	chocolate	200
3	hokyo-shires	oats	180
4	amazon rainforest	popcorn	120
5	grand barrier reef	fruits	90

Output

Result 9 x

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## Aggregate functions

MySQL Workbench

Local instance MySQL80 x

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Query 1 SQL File 2

```

8 • select * from snacks;
9 • select * from snacks where calories = (select min(calories) from snacks);
10 • select * from snacks where calories = (select max(calories) from snacks);
11 • select * from snacks order by calories desc limit 1 offset 1;
12 • ALTER TABLE book CHANGE COLUMN id b_id int;
13 • select b_id,name,s_name,calories from book b inner join snacks s on b_id = id order by calories desc;
14 • select b_id,name,s_name,calories from book b left join snacks s on b_id = id order by calories asc;
15 • select b_id,name,s_name,calories from book b right join snacks s on b_id = id order by calories desc;
16 • select b_id,name,s_name,calories from book b left join snacks s on b_id = id union select b_id,name,s_name,calories from book b right join snacks s on b_id = id order by b_id;
17 • select b_id,name,s_name,calories from book b inner join snacks s on b_id = id group by category;
18 • select count(id) as total_snacks,sum(calories) as total_calories,avg(calories) as average_calories,min(calories) as min_calories,max(calories) as max_calories from snacks;

```

Result Grid

	total_snacks	total_calories	average_calories	min_calories	max_calories
1	5	740	148.0000	90	200

Output

Result 10 x

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## String functions

MySQL Workbench

Local instance MySQL80 x

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Query 1 SQL File 2

Limit to 1000 rows

SQL: Additions

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Navigator

Query 1

```
20 s_name,
21 LENGTH(s_name) AS NameLength,
22 UPPER(s_name) AS UpperCaseName,
23 LOWER(s_name) AS LowerCaseName,
24 LEFT(s_name, 3) AS FirstThreeChars,
25 RIGHT(s_name, 3) AS LastThreeChars,
26 SUBSTRING(s_name, 2, 4) AS SubStr,
27 REPLACE(s_name, 'a', '0') AS ReplacedText,
28 REVERSE(s_name) AS ReversedName,
29 TRIM(' ' FROM s_name) AS TrimmedName
30 FROM Snacks;
```

Result Grid

s_name	NameLength	UpperCaseName	LowerCaseName	FirstThreeChars	LastThreeChars	SubStr	ReplacedText	ReversedName	TrimmedName
chips	5	CHIPS	chips	chi	ips	hps	chps	spihc	chps
chocolate	9	CHOCOLATE	chocolate	cho	ate	hca	chocolaTe	etacolhc	chocolate
cats	4	CATS	cats	cat	ats	cta	cats	stac	cats
popcorn	7	POPCORN	popcorn	pop	orn	pcra	popcorn	nrpocpp	popcorn
fruits	6	FRUITS	fruits	fru	its	nut	fruts	sturf	fruts

Administration Schemas

Information

No object selected

Result 14 x

Read Only

Context Help

Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
44	17:34:00	SELECT	s_name, LENGTH(s_name) AS NameLength, UPPER(s_name) AS UpperCaseName, LOWER(s_name) AS LowerCaseName, LEFT(s_name, 3) AS FirstThreeChars, RIGHT(s_name, 3) AS LastThreeChars, SUBSTRING(s_name, 2, 4) AS SubStr, REPLACE(s_name, 'a', '0') AS ReplacedText, REVERSE(s_name) AS ReversedName, TRIM(' ' FROM s_name) AS TrimmedName FROM Snacks;	5 row(s) returned 0.032 sec / 0.000 sec
45	17:34:02	SELECT	s_name, LENGTH(s_name) AS NameLength, UPPER(s_name) AS UpperCaseName, LOWER(s_name) AS LowerCaseName, LEFT(s_name, 3) AS FirstThreeChars, RIGHT(s_name, 3) AS LastThreeChars, SUBSTRING(s_name, 2, 4) AS SubStr, REPLACE(s_name, 'a', '0') AS ReplacedText, REVERSE(s_name) AS ReversedName, TRIM(' ' FROM s_name) AS TrimmedName FROM Snacks;	5 row(s) returned 0.000 sec / 0.000 sec
46	17:34:04	SELECT	s_name, LENGTH(s_name) AS NameLength, UPPER(s_name) AS UpperCaseName, LOWER(s_name) AS LowerCaseName, LEFT(s_name, 3) AS FirstThreeChars, RIGHT(s_name, 3) AS LastThreeChars, SUBSTRING(s_name, 2, 4) AS SubStr, REPLACE(s_name, 'a', '0') AS ReplacedText, REVERSE(s_name) AS ReversedName, TRIM(' ' FROM s_name) AS TrimmedName FROM Snacks;	5 row(s) returned 0.000 sec / 0.000 sec
47	17:34:05	SELECT	s_name, LENGTH(s_name) AS NameLength, UPPER(s_name) AS UpperCaseName, LOWER(s_name) AS LowerCaseName, LEFT(s_name, 3) AS FirstThreeChars, RIGHT(s_name, 3) AS LastThreeChars, SUBSTRING(s_name, 2, 4) AS SubStr, REPLACE(s_name, 'a', '0') AS ReplacedText, REVERSE(s_name) AS ReversedName, TRIM(' ' FROM s_name) AS TrimmedName FROM Snacks;	5 row(s) returned 0.000 sec / 0.000 sec

Object Info Session

Type here to search

23°C Sunny

5:34 PM 2/25/2025