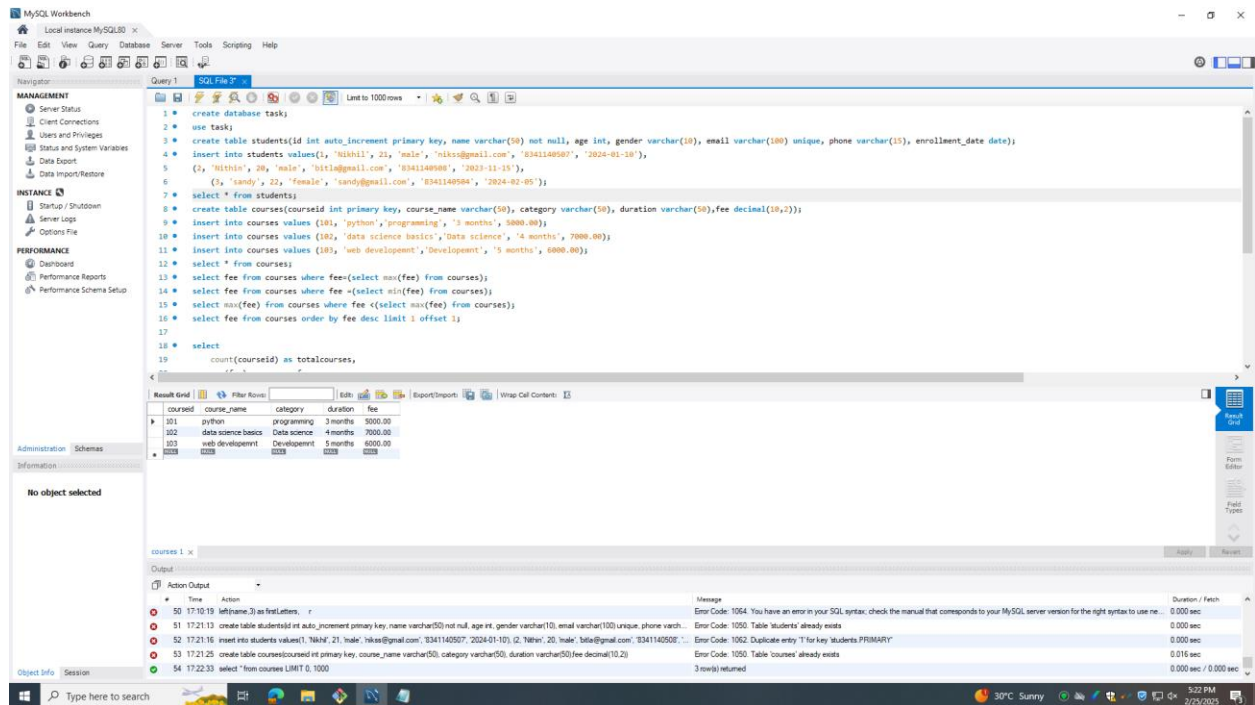


Create new tables more than one or two



The screenshot shows the MySQL Workbench interface. The SQL editor contains a query that creates a database, a table named 'students', and a table named 'courses'. The 'students' table has columns: id (auto-increment primary key), name, age, gender, email, phone, and enrollment_date. The 'courses' table has columns: course_id (auto-increment primary key), course_name, category, duration, and fee. The query also inserts data into both tables.

```
1 create database task;
2 use task;
3 create table students(id int auto_increment primary key, name varchar(50) not null, age int, gender varchar(10), email varchar(100) unique, phone varchar(15), enrollment_date date);
4 insert into students values(1, 'Nikhil', 21, 'male', 'niks@gmail.com', '834140507', '2024-01-10');
5 (2, 'Nikhil', 20, 'male', 'niks@gmail.com', '834140508', '2023-11-15');
6 (3, 'sandy', 22, 'female', 'sandy@gmail.com', '834140504', '2024-02-05');
7 select * from students;
8 create table courses(course_id int primary key, course_name varchar(50), category varchar(50), duration varchar(50), fee decimal(10,2));
9 insert into courses values (101, 'python', 'programming', '3 months', 5000.00);
10 insert into courses values (102, 'data science basics', 'Data science', '4 months', 7000.00);
11 insert into courses values (103, 'web development', 'Development', '5 months', 6000.00);
12 select * from courses;
13 select fee from courses where fee=(select max(fee) from courses);
14 select fee from courses where fee=(select min(fee) from courses);
15 select max(fee) from courses where fee < (select max(fee) from courses);
16 select fee from courses order by fee desc limit 1 offset 1;
17
18 select
19 count(course_id) as totalcourses,
20 --
```

The Results window shows the output of the query, displaying the 'courses' table data:

course_id	course_name	category	duration	fee
101	python	programming	3 months	5000.00
102	data science basics	Data science	4 months	7000.00
103	web development	Development	5 months	6000.00

1.Subquery to find max and min fee

MySQL Workbench

Local instance MySQL80

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- Performance Schema Setup

Object Info

Session

Query 1

SQL File 3

```

1 create database task;
2 use task;
3 create table students(id int auto_increment primary key, name varchar(50) not null, age int, gender varchar(10), email varchar(100) unique, phone varchar(15), enrollment_date date);
4 insert into students values(1, 'Nikhil', 21, 'male', 'niks@gmail.com', '8341140507', '2024-01-10');
5 (2, 'Nithin', 20, 'male', 'nithin@gmail.com', '8341140508', '2024-01-10');
6 (3, 'sandy', 22, 'female', 'sandy@gmail.com', '8341140504', '2024-02-05');
7 select * from students;
8 create table courses(courseid int primary key, course_name varchar(50), category varchar(50), duration varchar(50), fee decimal(10,2));
9 insert into courses values (101, 'python', 'programming', '3 months', 5000.00);
10 insert into courses values (102, 'data science basics', 'Data science', '4 months', 7000.00);
11 insert into courses values (103, 'web development', 'Development', '5 months', 6000.00);
12 select * from courses;
13 select fee from courses where fee=(select max(fee) from courses);
14 select fee from courses where fee =(select min(fee) from courses);
15 select max(fee) from courses where fee <(select max(fee) from courses);
16 select fee from courses order by fee desc limit 1 offset 1;
17
18 select
19 count(courseid) as totalcourses,
20 f.fee
21 from courses f;

```

Result Grid

fee
7000.00

courses 2 x

Output

Action Output

Time	Action	Message	Duration / Fech
51 17:21:13	create table students(id int auto_increment primary key, name varchar(50) not null, age int, gender varchar(10), email varchar(100) unique, phone varchar(15), enrollment_date date);	Err: Code 1050 Table 'students' already exists	0.000 sec
52 17:21:16	insert into students values(1, 'Nikhil', 21, 'male', 'niks@gmail.com', '8341140507', '2024-01-10'); (2, 'Nithin', 20, 'male', 'nithin@gmail.com', '8341140508', '2024-01-10');	Err: Code 1062 Duplicate entry '1' for key 'students.PRIMARY'	0.000 sec
53 17:21:25	create table courses(courseid int primary key, course_name varchar(50), category varchar(50), duration varchar(50), fee decimal(10,2));	Err: Code 1050 Table 'courses' already exists	0.016 sec
54 17:22:33	select * from courses LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
55 17:25:39	select fee from courses where fee=(select max(fee) from courses) LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec

Object Info

Session

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MySQL Workbench

Local instance MySQL80

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- Performance Schema Setup

Object Info

Session

Query 1

SQL File 3

```

1 create database task;
2 use task;
3 create table students(id int auto_increment primary key, name varchar(50) not null, age int, gender varchar(10), email varchar(100) unique, phone varchar(15), enrollment_date date);
4 insert into students values(1, 'Nikhil', 21, 'male', 'niks@gmail.com', '8341140507', '2024-01-10'); (2, 'Nithin', 20, 'male', 'nithin@gmail.com', '8341140508', '2024-01-10');
5 (3, 'sandy', 22, 'female', 'sandy@gmail.com', '8341140504', '2024-02-05');
6 select * from students;
7 create table courses(courseid int primary key, course_name varchar(50), category varchar(50), duration varchar(50), fee decimal(10,2));
8 insert into courses values (101, 'python', 'programming', '3 months', 5000.00);
9 insert into courses values (102, 'data science basics', 'Data science', '4 months', 7000.00);
10 insert into courses values (103, 'web development', 'Development', '5 months', 6000.00);
11 select * from courses;
12 select fee from courses where fee=(select max(fee) from courses);
13 select fee from courses where fee =(select min(fee) from courses);
14 select max(fee) from courses where fee <(select max(fee) from courses);
15 select fee from courses order by fee desc limit 1 offset 1;
16
17 select
18 count(courseid) as totalcourses,
19 f.fee
20 from courses f;

```

Result Grid

fee
5000.00

courses 3 x

Output

Action Output

Time	Action	Message	Duration / Fech
52 17:21:16	insert into students values(1, 'Nikhil', 21, 'male', 'niks@gmail.com', '8341140507', '2024-01-10'); (2, 'Nithin', 20, 'male', 'nithin@gmail.com', '8341140508', '2024-01-10');	Err: Code 1062 Duplicate entry '1' for key 'students.PRIMARY'	0.000 sec
53 17:21:25	create table courses(courseid int primary key, course_name varchar(50), category varchar(50), duration varchar(50), fee decimal(10,2));	Err: Code 1050 Table 'courses' already exists	0.016 sec
54 17:22:33	select * from courses LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
55 17:25:39	select fee from courses where fee=(select max(fee) from courses) LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
56 17:25:47	select fee from courses where fee =(select min(fee) from courses) LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info

Session

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2.Find the second highest fee using subquery or limit

MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 1

```

1 create database task;
2 use task;
3 create table students(id int auto_increment primary key, name varchar(50) not null, age int, gender varchar(10), email varchar(100) unique, phone varchar(15), enrollment_date date);
4 insert into students values(1, 'Nikhil', 21, 'male', 'nikh@gmail.com', '8341489587', '2024-01-10');
5 (2, 'Nithin', 20, 'male', 'nithi@gmail.com', '8341489588', '2023-11-15');
6 (3, 'sandy', 22, 'female', 'sandy@gmail.com', '8341489584', '2024-02-05');
7 select * from students;
8 create table courses(courseid int primary key, course_name varchar(50), category varchar(50), duration varchar(50), fee decimal(10,2));
9 insert into courses values (101, 'python', 'programming', '3 months', 5000.00);
10 insert into courses values (102, 'data science basics', 'Data science', '4 months', 7000.00);
11 insert into courses values (103, 'web development', 'Development', '5 months', 6000.00);
12 select * from courses;
13 select fee from courses where fee=(select max(fee) from courses);
14 select fee from courses where fee=(select min(fee) from courses);
15 select max(fee) from courses where fee=(select max(fee) from courses);
16 select fee from courses order by fee desc limit 1 offset 1;
17
18 select
19     count(courseid) as totalcourses,

```

Result Grid

max(fee)
6000.00

Result 4

Output

#	Time	Action	Message	Duration / Fetch
53	17:21:25	create table courses(courseid int primary key, course_name varchar(50), category varchar(50), duration varchar(50), fee decimal(10,2))	Error Code: 1050. Table 'courses' already exists	0.016 sec
54	17:22:33	select * from courses LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
55	17:25:39	select fee from courses where fee=(select max(fee) from courses) LIMIT 0, 1000	1 row(s) returned	0.016 sec / 0.000 sec
56	17:25:47	select fee from courses where fee=(select min(fee) from courses) LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
57	17:26:00	select max(fee) from courses where fee=(select max(fee) from courses) LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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3. write a query to implement all aggregate functions

MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 1

```

6 (3, 'sandy', 22, 'female', 'sandy@gmail.com', '8341489584', '2024-02-05');
7 select * from students;
8 create table enrollments(id int auto_increment primary key, id int, courseid int, foreign key(id)references students(id), foreign key(courseid)references courses(courseid));
9 insert into enrollments(id, courseid)values (1,101),(2,102),(3,103),(4,101),(5,101),(6,103);
10 create table courses(courseid int primary key, course_name varchar(50), category varchar(50), duration varchar(50), fee decimal(10,2));
11 insert into courses values (101, 'python', 'programming', '3 months', 5000.00);
12 insert into courses values (102, 'data science basics', 'Data science', '4 months', 7000.00);
13 insert into courses values (103, 'web development', 'Development', '5 months', 6000.00);
14 select * from courses;
15 select fee from courses where fee=(select max(fee) from courses);
16 select fee from courses where fee=(select min(fee) from courses);
17 select max(fee) from courses where fee=(select max(fee) from courses);
18 select fee from courses order by fee desc limit 1 offset 1;
19
20 count(courseid) as totalcourses,
21 avg(fee) as averagefee,
22 max(fee) as maxcoursefee,
23 min(fee) as mincoursefee
24 from courses;

```

Result Grid

totalcourses	averagefee	maxcoursefee	mincoursefee
6	6000.000000	7000.00	5000.00

Result 6

Output

#	Time	Action	Message	Duration / Fetch
74	17:51:22	select s.name as name, c.course_name from students s inner join enrollments on s.id=e.id inner join courses c on e.courseid=c.courseid order by s.name	Error Code: 1054. Unknown column 'e.courseid' in 'on clause'	0.000 sec
75	17:51:26	select s.name as name, c.course_name from students s inner join enrollments on s.id=e.id inner join courses c on e.courseid=c.courseid order by s.name	Error Code: 1054. Unknown column 'e.courseid' in 'on clause'	0.000 sec
76	17:51:33	select s.name as name, c.course_name from students s inner join enrollments on s.id=e.id inner join courses c on e.courseid=c.courseid order by s.name	Error Code: 1054. Unknown column 'e.courseid' in 'on clause'	0.000 sec
77	17:55:01	select s.name as name, c.course_name from students s inner join enrollments on s.id=e.id inner join courses c on e.courseid=c.courseid order by s.name	Error Code: 1054. Unknown column 'e.courseid' in 'on clause'	0.000 sec
78	17:57:11	select count(courseid) as totalcourses, avg(fee) as averagefee, max(fee) as maxcoursefee, min(fee) as mincoursefee from courses LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

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5:57 PM 2/24/2025

4. write a query using all sting functions.

MySQL Workbench

Local instance MySQL80

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Query 1 SQL File 1

Limit to 1000 rows

```
19 * select
20     count(courseid) as totalcourses,
21     avg(fee) as averagefee,
22     max(fee) as maxcoursefee,
23     min(fee) as mincoursefee
24     from courses;
25 * select s.name as name,
26     c.course_name from students s inner join enrollments on s.id=e.id inner join courses c on e.courseid =c.courseid order by s.name;
27 * select
28     upper(name) as upername,
29     lower(name) as lowername,
30     length(name) as namelength,
31     trim('s' from name) as trimmedname,
32     replace(name, 'i', 'I') as replacedname,
33     concat(name, 'reddy') as fullname,
34     substr(name,1,3) as firstthreeletters,
35     left(name, 3) as firstletters,
36     right(name, 3) as lastletters
37     from students;
```

Result Grid

	username	lowername	namelength	trimmedname	replacedname	fullname	firstthreeletters	firstletters	lastletters
1	NETHIN	nethin	6	Nethin	Nethin	Nethin-reddy	Neth	Neth	in
2	SANDY	sandy	5	sandy	sandy	sandy-reddy	san	san	ndy

Administration Schemas

Information

No object selected

Result 7

Action Output

#	Time	Action	Message	Duration / Fetch
75	17:51:26	select s.name as name, c.course_name from students s inner join enrollments on s.id=e.id inner join courses c on e.courseid =c.courseid order by s.name...	Err: Code: 1054. Unknown column 'e.courseid' in 'on clause'	0.000 sec
76	17:53:33	select s.name as name, c.course_name from students s inner join enrollments on s.id=e.id inner join courses c on e.courseid =c.courseid order by s.name...	Err: Code: 1054. Unknown column 'e.courseid' in 'on clause'	0.000 sec
77	17:55:01	select s.name as name, c.course_name from students s inner join enrollments on s.id=e.id inner join courses c on e.courseid =c.courseid order by s.name...	Err: Code: 1054. Unknown column 'e.courseid' in 'on clause'	0.000 sec
78	17:57:11	select count(courseid) as totalcourses, avg(fee) as averagefee, max(fee) as maxcoursefee, min(fee) as mincoursefee from courses LIMIT 0...	1 row(s) returned	0.000 sec / 0.000 sec
79	17:58:11	select upper(name) as upername, lower(name) as lowername, length(name) as namelength, trim('s' from name) as trimmedname, replace(name, 'i', 'I') as replacedname...	2 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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