

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHMAS

Filter objects

college

ecommerce

Tables

customers

orders

products

Views

big_orders

Stored Procedures

Functions

sys

SQL QUERY*

Limit to 1000 rows

53

54 -- a Execute the statement under the keyboard cursor

55 SELECT * FROM customers WHERE country = 'India';

56

57 SELECT * FROM orders ORDER BY total_amount DESC;

58

59 select customer_id, sum(total_amount) as total_spent

60 from orders

61 group by customer_id;

62

Result Grid

customer_id name country

1 Alice India

4 David India

101 het India

105 ips India

Schema: ecommerce

Administration Schemas

Information

Schema: ecommerce

Output

Action Output

Time Action Message Duration / Fetch

14 20:04:18 Insert into customers values (101, 'het', 'India'), (102, 'hanuto', 'Japan'), (103, 'pogo', 'Japan'), (104, 'hishimiya', 'Japan') Error Code: 1062. Duplicate entry '101' for key 'customers.PRIMARY' 0.000 sec

15 20:04:29 SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

16 20:05:02 Insert into customers values (1, 'het', 'India'), (2, 'hanuto', 'Japan'), (3, 'pogo', 'Japan'), (4, 'hishimiya', 'Japan'), (5, 'ips', 'Japan') Error Code: 1062. Duplicate entry '1' for key 'customers.PRIMARY' 0.000 sec

17 20:06:14 SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

18 20:06:33 SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

19 20:07:05 SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

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54 -- a Execute the statement under the keyboard cursor

55 SELECT * FROM customers WHERE country = 'India';

56

57 SELECT * FROM orders ORDER BY total_amount DESC;

58

59 select customer_id, sum(total_amount) as total_spent

60 from orders

61 group by customer_id;

62

Result Grid

order_id customer_id total_amount

101 1 1200.50

103 1 750.25

104 1 750.25

102 2 450.00

105 3 300.00

Schema: ecommerce

Administration Schemas

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Schema: ecommerce

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Time Action Message Duration / Fetch

15 20:04:29 SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

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19 20:07:05 SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000 4 row(s) returned 0.000 sec / 0.000 sec

20 20:07:26 SELECT * FROM orders ORDER BY total_amount DESC LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec

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MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Filter objects

SCHEMAS

- college
- ecommerce
 - customers
 - orders
 - products
 - Views
 - big_orders
 - Stored Procedures
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Administration Schemas

Information

Schema: ecommerce

SQL File 3* SQL QUERY*

```
53
54 -- a . Use SELECT, WHERE, ORDER BY, GROUP BY
55 * SELECT * FROM customers WHERE country = 'India';
56
57 * SELECT * FROM orders ORDER BY total_amount DESC;
58
59 * select customer_id, sum(total_amount) as total_spent
60   from orders
61   group by customer_id;
62
```

Result Grid

	customer_id	total_spent
1	2701.00	
2	450.00	
3	300.00	

Output

Action Output

#	Time	Action	Message	Duration / Fetch
17	20:06:14	SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
18	20:06:33	SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
19	20:07:05	SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
20	20:07:26	SELECT * FROM orders ORDER BY total_amount DESC LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
21	20:07:41	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
22	20:08:00	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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MySQL Workbench

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Navigator: Filter objects

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Administration Schemas

Information

Schema: ecommerce

SQL File 3* SQL QUERY*

```
63 -- b . Use JOINS (INNER, LEFT, RIGHT)
64 Execute the statement under the keyboard cursor
65 -- INNER JOIN
66 * select o.order_id, c.name, o.total_amount
67   from orders o
68   inner join customers c on o.customer_id = c.customer_id;
69
70 -- LEFT JOIN
71 * select c.name, o.order_id
72   from customers c
```

Result Grid

	order_id	name	total_amount
101	Alice	1200.50	
102	Bob	450.00	
103	Alice	750.25	
104	Alice	750.25	
105	Charlie	300.00	

Output

Action Output

#	Time	Action	Message	Duration / Fetch
18	20:06:33	SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
19	20:07:05	SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 sec
20	20:07:26	SELECT * FROM orders ORDER BY total_amount DESC LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
21	20:07:41	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
22	20:08:00	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
23	20:08:23	select o.order_id, c.name, o.total_amount from orders o inner join customers c on o.customer_id = c.customer_id	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

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File Edit View Query Database Server Tools Scripting Help

Navigator: SQL File 3* SQL QUERY*

Schemas: Filter objects, college, **ecommerce**, Tables (customers, orders, products), Views (big_orders), Stored Procedures, Functions, sys

Administration Schemas

Information: Schema: **ecommerce**

```

67 from orders o
68 inner join customers c on o.customer_id = c.customer_id;
69
70 -- LEFT JOIN
71 select c.name, o.order_id
72 from customers c
73 left join orders o on c.customer_id = o.customer_id;
74
75 -- c . Write subqueries
76

```

Result Grid: name, order_id

name	order_id
Alice	101
Alice	103
Alice	104
Bob	102
Charlie	105
David	106
het	107
naruto	108

Output: Action Output

#	Time	Action	Message	Duration / Fetch
19	20:07:05	SELECT * FROM customers WHERE country = 'India' LIMIT 0, 1000	4 row(s) returned	0.000 sec / 0.000 se
20	20:07:26	SELECT * FROM orders ORDER BY total_amount DESC LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 se
21	20:07:41	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 se
22	20:08:00	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 se
23	20:08:23	select o.order_id, c.name, o.total_amount from orders o inner join customers c on o.customer_id = c.customer_id...	5 row(s) returned	0.000 sec / 0.000 se
24	20:08:39	select c.name, o.order_id from customers c left join orders o on c.customer_id = o.customer_id LIMIT 0, 1000	11 row(s) returned	0.000 sec / 0.000 se

Object Info Session

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Navigator: SQL File 3* SQL QUERY*

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Administration Schemas

Information: Schema: **ecommerce**

```

74
75 -- c . Write subqueries
76
77 select name from customers
78 where customer_id in (
79 select customer_id from orders
80 where total_amount > (select avg(total_amount) from orders)
81 )
82
83 -- d . Use aggregate functions (SUM, AVG)

```

Result Grid: name

name
Alice

Output: Action Output

#	Time	Action	Message	Duration / Fetch
20	20:07:26	SELECT * FROM orders ORDER BY total_amount DESC LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 se
21	20:07:41	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 se
22	20:08:00	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 se
23	20:08:23	select o.order_id, c.name, o.total_amount from orders o inner join customers c on o.customer_id = c.customer_id...	5 row(s) returned	0.000 sec / 0.000 se
24	20:08:39	select c.name, o.order_id from customers c left join orders o on c.customer_id = o.customer_id LIMIT 0, 1000	11 row(s) returned	0.000 sec / 0.000 se
25	20:09:10	select name from customers where customer_id in (select customer_id from orders where total_amount > (sel...	1 row(s) returned	0.000 sec / 0.000 se

Object Info Session

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SQL File 3* SQL QUERY*

```
81 --
82 --
83 -- d . Use aggregate functions (SUM, AVG)
84
85 select customer_id, sum(total_amount) as total_spent
86 from orders
87 group by customer_id;
88
89 select customer_id, avg(total_amount) as average_order
90 from orders
```

Result Grid

customer_id	total_spent
1	2701.00
2	450.00
3	300.00

Schema: ecommerce

Object Info Session

Query Completed

Output

Action Output

#	Time	Action	Message	Duration / Fetch
21	20:07:41	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
22	20:08:00	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
23	20:08:23	select o.order_id, c.name, o.total_amount from orders o inner join customers c on o.customer_id = c.customer_id	5 row(s) returned	0.000 sec / 0.000 sec
24	20:08:39	select c.name, o.order_id from customers c left join orders o on c.customer_id = o.customer_id LIMIT 0, 1000	11 row(s) returned	0.000 sec / 0.000 sec
25	20:09:10	select name from customers where customer_id in (select customer_id from orders where total_amount > (select	1 row(s) returned	0.000 sec / 0.000 sec
26	20:14:31	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

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SQL File 3* SQL QUERY*

```
85 select customer_id, sum(total_amount) as total_spent
86 from < Execute the statement under the keyboard cursor
87 group by customer_id;
88
89 select customer_id, avg(total_amount) as average_order
90 from orders
91 group by customer_id;
92
93
94
```

Result Grid

customer_id	average_order
1	900.333333
2	450.000000
3	300.000000

Schema: ecommerce

Object Info Session

Query Completed

Output

Action Output

#	Time	Action	Message	Duration / Fetch
22	20:08:00	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
23	20:08:23	select o.order_id, c.name, o.total_amount from orders o inner join customers c on o.customer_id = c.customer_id	5 row(s) returned	0.000 sec / 0.000 sec
24	20:08:39	select c.name, o.order_id from customers c left join orders o on c.customer_id = o.customer_id LIMIT 0, 1000	11 row(s) returned	0.000 sec / 0.000 sec
25	20:09:10	select name from customers where customer_id in (select customer_id from orders where total_amount > (select	1 row(s) returned	0.000 sec / 0.000 sec
26	20:14:31	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
27	20:14:55	select customer_id, avg(total_amount) as average_order from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

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Navigator: Filter objects, college, ecommerce, Tables (customers, orders, products), Views (big_orders), Stored Procedures, Functions, sys

Schema: ecommerce

SQL QUERY

```

91 group by customer_id;
92 -- e . Create views for analysis
93
94
95 • create view big_orders as
96   select * from orders where total_amount > 1000;
97
98 -- Use the view
99 • select * from big_orders;
100

```

Result Grid

order_id	customer_id	total_amount
101	1	1200.50

big_orders 13 x

Output

#	Time	Action	Message	Duration / Fetch
25	20:09:10	select name from customers where customer_id in (select customer_id from orders where total_amount > 1000)	1 row(s) returned	0.000 sec / 0.000 sec
26	20:14:31	select customer_id, sum(total_amount) as total_spent from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
27	20:14:55	select customer_id, avg(total_amount) as average_order from orders group by customer_id LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
28	20:15:26	create view big_orders as select * from orders where total_amount > 1000	Error Code: 1050, Table 'big_orders' already exists	0.000 sec
29	20:15:28	create view big_orders as select * from orders where total_amount > 1000	Error Code: 1050, Table 'big_orders' already exists	0.000 sec
30	20:15:41	select * from big_orders LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Subject Info Session

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Schema: ecommerce

SQL QUERY

```

96 select * from orders where total_amount > 1000;
97
98 -- Use the view
99 • select * from big_orders;
100
101 -- f . Optimize queries with indexes
102
103 • create index idx_customer on customers(customer_id);
104
105
106
107
108
109
110
111
112
113
114

```

Output

#	Time	Action	Message	Duration / Fetch
30	20:15:41	select * from big_orders LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
31	20:16:06	create index idx_customer on customers(customer_id)	Error Code: 1061, Duplicate key name 'idx_customer'	0.000 sec
32	20:16:10	create index idx_customer on customers(customer_id)	Error Code: 1061, Duplicate key name 'idx_customer'	0.000 sec
33	20:16:11	create index idx_customer on customers(customer_id)	Error Code: 1061, Duplicate key name 'idx_customer'	0.000 sec
34	20:16:12	create index idx_customer on customers(customer_id)	Error Code: 1061, Duplicate key name 'idx_customer'	0.000 sec
35	20:16:12	create index idx_customer on customers(customer_id)	Error Code: 1061, Duplicate key name 'idx_customer'	0.000 sec

Subject Info Session