

1. CREATE DATA BASE global_store_db

CREATE TABLE

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'SCHEMAS' tree with 'global_store_db' selected. The main editor window shows the following SQL script:

```
4 USE global_store_db;
5
6 -- CREATE TABLE
7
8 CREATE TABLE products (
9     product_id INT AUTO_INCREMENT,
10    name VARCHAR(100),
11    price DECIMAL(10, 2),
12    quantity INT,
13    PRIMARY KEY (product_id)
14 );
15
16 CREATE TABLE orders (
17     order_id INT AUTO_INCREMENT,
18     product_id INT,
19     quantity_ordered INT,
20     order_date DATE,
21     PRIMARY KEY (order_id),
22     FOREIGN KEY (product_id) REFERENCES products(product_id)
23 );
24
```

The bottom output window shows the execution results:

#	Time	Action	Message	Duration / Fetch
3	12:30:45	CREATE TABLE products (product_id INT AUTO_INCREMENT, name VARCHAR(100), pri...	0 row(s) affected	0.078 sec
4	12:31:22	CREATE TABLE orders (order_id INT AUTO_INCREMENT, product_id INT, quantity_order...	0 row(s) affected	0.047 sec

The right sidebar shows a message: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."

2. Alter products table

The screenshot displays the MySQL Workbench interface. On the left, the 'SCHEMAS' pane shows a tree view of the database structure, including tables like 'order_id', 'product', 'quantity', and 'order_d', as well as indexes, foreign keys, triggers, and views. The main editor window shows two SQL queries: a 'CREATE TABLE orders' statement and an 'ALTER TABLE products' statement. The 'ALTER TABLE products' query is highlighted, showing the addition of a 'category' column of type 'VARCHAR(50)' after the 'price' column. The 'Output' pane at the bottom shows the execution results of these queries, indicating that 0 rows were affected for both the table creation and the column addition. A context help window is also visible on the right side of the editor.

```
9      product_id INT AUTO_INCREMENT,  
10      name VARCHAR(100),  
11      price DECIMAL(10, 2),  
12      quantity INT,  
13      PRIMARY KEY (product_id)  
14  );  
15  
16  CREATE TABLE orders (  
17      order_id INT AUTO_INCREMENT,  
18      product_id INT,  
19      quantity_ordered INT,  
20      order_date DATE,  
21      PRIMARY KEY (order_id),  
22      FOREIGN KEY (product_id) REFERENCES products(product_id)  
23  );  
24  
25  -- 2. Alter products table  
26  
27  ALTER TABLE products  
28  ADD COLUMN category VARCHAR(50) AFTER price;  
29
```

#	Time	Action	Message	Duration / Fetch
4	12:31:22	CREATE TABLE orders (order_id INT AUTO_INCREMENT, product_id INT, quantity_order...	0 row(s) affected	0.047 sec
5	12:33:42	ALTER TABLE products ADD COLUMN category VARCHAR(50) AFTER price	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.047 sec

3. Rename products table

The screenshot shows the MySQL Workbench interface with the following components:

- Navigator:** Shows the database structure for 'global_store_db', including tables like 'inventory', 'products', and 'orders'.
- SQL Editor:** Contains the following SQL code:

```
13 PRIMARY KEY (product_id)
14 );
15
16 CREATE TABLE orders (
17     order_id INT AUTO_INCREMENT,
18     product_id INT,
19     quantity_ordered INT,
20     order_date DATE,
21     PRIMARY KEY (order_id),
22     FOREIGN KEY (product_id) REFERENCES products(product_id)
23 );
24
25 -- 2. Alter products table
26
27 ALTER TABLE products
28 ADD COLUMN category VARCHAR(50) AFTER price;
29
30 -- 3. Rename products table
31
32 RENAME TABLE products TO inventory;
33
```
- Output:** Shows the execution results of the SQL queries:

#	Time	Action	Message	Duration / Fetch
5	12:33:42	ALTER TABLE products ADD COLUMN category VARCHAR(50) AFTER price	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.047 sec
6	12:34:46	RENAME TABLE products TO inventory	0 row(s) affected	0.031 sec
- Context Help:** A sidebar on the right provides information about the current query, including a note about automatic context help being disabled.

4. Insert records and display tables

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'global_store_db' selected, showing tables like 'inventory' and 'orders'. The main editor window shows a SQL script with an INSERT statement and a SELECT statement. The 'Result Grid' displays the results of the SELECT query, showing a list of products with their IDs, names, prices, categories, and quantities. The 'Output' pane at the bottom shows the execution of the SQL statements, including the INSERT and SELECT queries, with their respective durations and row counts.

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator task 4 Task 5 Task 6 Task 7 SQL File 6* SQL File 7* Comprehensive Assessment SQL File 9* x

SCHEMAS

Filter objects

global_store_db

Tables

inventory

Columns

product

name

price

category

quantity

Indexes

Foreign Key

Triggers

orders

Columns

order_id

product_id

quantity

order_date

Indexes

Administration Schemas

Information

No object selected

SQL

task 4

task 5

task 6

task 7

SQL File 6*

SQL File 7*

Comprehensive Assessment

SQL File 9* x

Limit to 1000 rows

49 • INSERT INTO orders (product_id, quantity_ordered, order_date)

50 VALUES

51 (1, 2, '2024-01-25'),

52 (2, 3, '2023-12-15'),

53 (3, 1, '2024-02-01'),

54 (4, 4, '2024-02-15'),

55 (5, 2, '2024-03-01');

56

57 • SELECT * FROM inventory;

Result Grid

Filter Rows:

Edit

Export/Import:

Wrap Cell Content:

product_id name price category quantity

1 Mobile 25999.99 Electronics 3

2 Shirt 499.99 Clothing 15

3 Fridge 16789.45 Home Goods 2

4 TV 39999.99 Electronics 3

5 Jeans 444.44 Clothing 12

6 Air Cooler 69999.55 Home Goods 7

7 Laptop 58999.99 Electronics 8

8 Skirt 998.99 Clothing 25

9 Washing Machine 23999.99 Home Goods 4

10 Tablet 25999.00 Electronics 5

Inventory 1 x

Apply Revert Context Help Snippets

Output

Action Output

Time Action Message Duration / Fetch

10 12:43:28 INSERT INTO orders (product_id, quantity_ordered, order_date) VALUES (1, 2, '2024-01-25'), ... 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.016 sec

11 12:44:37 SELECT * FROM inventory LIMIT 0, 1000 10 row(s) returned 0.000 sec / 0.000 sec

Object Info Session

Type here to search

28°C Partly sunny

12:45

02-09-2024

Display inventory

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

task 4 Task 5 Task 6 Task 7 SQL File 6* SQL File 7* Comprehensive Assessment SQL File 9*

Limit to 1000 rows

SCHEMAS

Filter objects

global_store_db

Tables

inventory

Columns

product

name

price

category

quantity

Indexes

Foreign Key

Triggers

orders

Columns

order_id

product

quantity

order_id

Indexes

Administration Schemas

Information

No object selected

49 INSERT INTO orders (product_id, quantity_ordered, order_date)

50 VALUES

51 (1, 2, '2024-01-25'),

52 (2, 3, '2023-12-15'),

53 (3, 1, '2024-02-01'),

54 (4, 4, '2024-02-15'),

55 (5, 2, '2024-03-01'),

56

57 SELECT * FROM inventory;

Result Grid

Filter Rows:

product_id name price category quantity

1 Mobile 25999.99 Electronics 3

2 Shirt 499.99 Clothing 15

3 Fridge 16789.45 Home Goods 2

4 TV 39999.99 Electronics 3

5 Jeans 444.44 Clothing 12

6 Air Cooler 69999.55 Home Goods 7

7 Laptop 58999.99 Electronics 8

8 Skirt 998.99 Clothing 25

9 Washing Machine 23999.99 Home Goods 4

10 Tablet 25999.00 Electronics 5

Output

Action Output

Time Action Message Duration / Fetch

10 12:43:28 INSERT INTO orders (product_id, quantity_ordered, order_date) VALUES (1, 2, 2024-01-25), ... 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.016 sec

11 12:44:37 SELECT * FROM inventory LIMIT 0, 1000 10 row(s) returned 0.000 sec / 0.000 sec

SQLAdditions

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

Windows Taskbar

Type here to search

28°C Partly sunny

12:45 02-09-2024

Display Orders

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

task 4 Task 5 Task 6 Task 7 SQL File 6* SQL File 7* Comprehensive Assessment SQL File 9*

Limit to 1000 rows

SQL File 9*

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

SCHEMAS

Filter objects

global_store_db

Tables

inventory

Columns

product

name

price

category

quantity

Indexes

Foreign Key

Triggers

orders

Columns

order_id

product_id

quantity

order_date

Administration Schemas

Information

No object selected

Result Grid

	order_id	product_id	quantity_ordered	order_date
1	1	2		2024-01-25
2	2	3		2023-12-15
3	3	1		2024-02-01
4	4	4		2024-02-15
5	5	2		2024-03-01
*	NULL	NULL		NULL

orders 2

Apply Revert Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
11	12:44:37	SELECT * FROM inventory LIMIT 0, 1000	10 row(s) returned	0.000 sec / 0.000 sec
12	12:46:15	SELECT * FROM orders LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

Near record

12:47 02-09-2024

5) a)

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

task 4 Task 5 Task 6 Task 7 SQL File 6* SQL File 7* Comprehensive Assessment SQL File 9*

Limit to 1000 rows

task 4

```
54 (4, 4, '2024-02-15'),
55 (5, 2, '2024-03-01');
56
57 SELECT * FROM inventory;
58 SELECT * FROM orders;
59
60 -- 5. Write queries
61
62 -- a) Distinct categories
63
64 SELECT DISTINCT category FROM inventory;
```

Result Grid

category
Electronics
Clothing
Home Goods

Information

No object selected

Output

#	Time	Action	Message	Duration / Fetch
12	12:46:15	SELECT * FROM orders LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
13	12:47:58	SELECT DISTINCT category FROM inventory LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

12:48 02-09-2024

5) b)

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

task 4 Task 5 Task 6 Task 7 SQL File 6* SQL File 7* Comprehensive Assessment SQL File 9*

Limit to 1000 rows

60 -- 5. Write queries
61
62 -- a) Distinct categories
63
64 • SELECT DISTINCT category FROM inventory;
65
66 -- b) Top 5 products by price
67
68 • SELECT * FROM inventory
69 ORDER BY price DESC
70 LIMIT 5;
71

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

Result Grid

product_id	name	price	category	quantity
6	Air Cooler	69999.55	Home Goods	7
7	Laptop	58999.99	Electronics	8
4	TV	39999.99	Electronics	3
1	Mobile	25999.99	Electronics	3
10	Tablet	25999.00	Electronics	5

Inventory 4 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
13	12:47:58	SELECT DISTINCT category FROM inventory LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
14	12:48:39	SELECT * FROM inventory ORDER BY price DESC LIMIT 5	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

High UV

12:49 02-09-2024

5) c)

The screenshot shows the MySQL Workbench interface with the following components:

- Navigator:** Displays the database structure for 'global_store_db', including tables like 'inventory' and 'orders'.
- SQL Editor:** Contains two SQL queries:
 - Query 66: `-- b) Top 5 products by price`
`SELECT * FROM inventory`
`ORDER BY price DESC`
`LIMIT 5;`
 - Query 74: `-- c) Products with quantity greater than 10`
`SELECT * FROM inventory`
`WHERE quantity > 10;`
- Result Grid:** Displays the results of the first query (Query 66). The table has columns: product_id, name, price, category, quantity. The results are:

product_id	name	price	category	quantity
2	Shirt	499.99	Clothing	15
5	Jeans	444.44	Clothing	12
8	Skirt	998.99	Clothing	25
HULL	HULL	HULL	HULL	HULL
- Output:** Shows the execution of the queries with messages and durations.

#	Time	Action	Message	Duration / Fetch
14	12:48:39	SELECT * FROM inventory ORDER BY price DESC LIMIT 5	5 row(s) returned	0.000 sec / 0.000 sec
15	12:49:43	SELECT * FROM inventory WHERE quantity > 10 LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

5) d)

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

task 4 Task 5 Task 6 Task 7 SQL File 6* SQL File 7* Comprehensive Assessment SQL File 9*

Limit to 1000 rows

task 4

```
69 ORDER BY price DESC
70 LIMIT 5;
71
72 -- c) Products with quantity greater than 10
73
74 SELECT * FROM inventory
75 WHERE quantity > 10;
76
77 -- d) Total price of all products
78
79 SELECT SUM(price * quantity) AS total_price FROM inventory;
80
```

Result Grid

total_price
1457378.45

Administration Schemas

Information

No object selected

Output

Action Output

#	Time	Action	Message	Duration / Fetch
15	12:49:43	SELECT * FROM inventory WHERE quantity > 10 LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
16	12:50:26	SELECT SUM(price * quantity) AS total_price FROM inventory LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Windows

Type here to search

NIFTY +0.23%

12:50 02-09-2024

5) e)

The screenshot shows the MySQL Workbench interface with the following components:

- Navigator:** Shows the database structure for 'global_store_db', including tables like 'inventory', 'orders', and 'products'.
- SQL Editor:** Contains two queries:
 - Query 75: `WHERE quantity > 10;`
 - Query 79: `SELECT SUM(price * quantity) AS total_price FROM inventory;`
 - Query 83: `SELECT category, COUNT(*) AS count FROM inventory GROUP BY category;`
- Result Grid:** Displays the results of the queries:

category	count
Electronics	4
Clothing	3
Home Goods	3
- Output:** Shows the execution log with timestamps and messages:

#	Time	Action	Message	Duration / Fetch
16	12:50:26	SELECT SUM(price * quantity) AS total_price FROM inventory LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
17	12:51:06	SELECT category, COUNT(*) AS count FROM inventory GROUP BY category LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec

5) f)

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator

task 4 Task 5 Task 6 Task 7 SQL File 6* SQL File 7* Comprehensive Assessment SQL File 9*

Limit to 1000 rows

SQL File 9*

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

SQL Additions

Jump to

global_store_db

Tables

inventory

Columns

product

name

price

category

quantity

Indexes

Foreign Key

Triggers

orders

Columns

order_id

product

quantity

order_id

Indexes

Administration Schemas

Information

No object selected

Inventory 8

Apply Revert Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
17	12:51:06	SELECT category, COUNT(*) AS count FROM inventory GROUP BY category LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
18	12:51:37	SELECT * FROM inventory WHERE quantity = 0 LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Type here to search

NIFTY +0.23%

12:51 02-09-2024

6. Create view

The screenshot shows the MySQL Workbench interface with the following components:

- Navigator:** Displays the database structure for 'global_store_db', including tables (inventory, orders), columns, indexes, and triggers.
- SQL Editor:** Contains the following SQL code:

```
78 SELECT SUM(price * quantity) AS total_price FROM inventory;
79
80 -- e) Group products by category
81
82 SELECT category, COUNT(*) AS count
83 FROM inventory
84 GROUP BY category;
85
86 -- f) Out of stock products
87
88 SELECT * FROM inventory
89 WHERE quantity = 0;
90
91 -- 6. Create view
92
93 CREATE VIEW expensive_products AS
94 SELECT * FROM inventory
95 WHERE price > (SELECT AVG(price) FROM inventory);
96
```
- Output:** Shows the execution results of the queries:

#	Time	Action	Message	Duration / Fetch
18	12:51:37	SELECT * FROM inventory WHERE quantity = 0 LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
19	12:52:28	CREATE VIEW expensive_products AS SELECT * FROM inventory WHERE price > (SELECT ...	0 row(s) affected	0.016 sec
- Context Help:** A sidebar on the right provides information about the 'Automatic context help' feature.

7. Join query

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'global_store_db' selected. The main editor shows a SQL script with the following content:

```
-- 6. Create view
93
94
95 CREATE VIEW expensive_products AS
96 SELECT * FROM inventory
97 WHERE price > (SELECT AVG(price) FROM inventory);
98
99 -- 7. Join query
100
101 SELECT i.name, o.quantity_ordered
102 FROM inventory i
103 JOIN orders o ON i.product_id = o.product_id;
```

The 'Result Grid' shows the output of the join query:

name	quantity_ordered
Mobile	2
Shirt	3
Fridge	1
TV	4
Jeans	2

The 'Output' pane at the bottom shows the execution log:

#	Time	Action	Message	Duration / Fetch
20	12:52:57	CREATE VIEW expensive_products AS SELECT * FROM inventory WHERE price > (SELECT ...	Error Code: 1050. Table 'expensive_products' already exists	0.015 sec
21	12:56:11	SELECT i.name, o.quantity_ordered FROM inventory i JOIN orders o ON i.product_id = o.produ...	5 row(s) returned	0.000 sec / 0.000 sec

The right sidebar contains a message: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help."