

Elevate Labs

Task 4 – SQL for Data Analysis

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Output Screenshots:

The screenshot displays the MySQL Workbench interface. The top panel shows the 'Output' window with a list of executed SQL statements and their results. The bottom panel shows the 'Query 1' window with a SQL query and its results in a grid format.

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	19:43:50	CREATE DATABASE ecommerce	1 row(s) affected	0.000 sec
✓ 2	19:44:05	USE ecommerce	0 row(s) affected	0.000 sec
✓ 3	19:44:19	CREATE TABLE customers (customer_id VARCHA...	0 row(s) affected	0.031 sec
✓ 4	19:46:44	SHOW SESSION VARIABLES LIKE lower_case_tabl...	OK	0.000 sec
✓ 5	19:46:44	SHOW DATABASES	OK	0.000 sec
✓ 6	19:46:53	SHOW SESSION VARIABLES LIKE lower_case_tabl...	OK	0.000 sec
✓ 7	19:46:53	SHOW TABLES FROM 'ecommerce' like 'olist_custom...	OK	0.000 sec
✓ 8	19:47:38	CREATE TABLE 'ecommerce'.'olist_customers_datas...	OK	0.000 sec
✓ 9	19:47:38	PREPARE stmt FROM 'INSERT INTO 'ecommerce'.'o...	OK	0.000 sec
✓ 10	20:03:25	DEALLOCATE PREPARE stmt	OK	0.000 sec
✗ 11	21:13:47	INSERT INTO customers (customer_id, customer_uniq...	Error Code: 1146. Table 'sys.customers' doesn't exist	0.016 sec
✓ 12	21:20:26	CREATE TABLE customers (customer_id VARCHA...	0 row(s) affected	0.047 sec
✓ 13	21:20:43	INSERT INTO customers VALUES ('06b8999e2fba1a...	10 row(s) affected Records: 10 Duplicates: 0 Wamin...	0.016 sec

Query 1

```
#) SELECT, WHERE, ORDER BY
-- List all customers in SP
SELECT customer_id, customer_city
FROM customers
WHERE customer_state = 'SP'
ORDER BY customer_city;
```

Result Grid

customer_id	customer_city
4f2d8ab171c80ec32647c12e35b23ad	campinas
06b8999e2fba1a1fc88172c00ba8bc7	franca
1b2e6027bc5c5109e5294dc6358b12c3	mogi das cruzeiras
18955e83d337f68b2de1f6b18a428ac77	sao bernardo do campo
4e7b3e00288596ebd08712f5d0374b03	sao paulo
f6820e7cf63160e336e9908c76c3f441	sao paulo

Schema: sys

History Output

Date	Time	SQL
2025-09-26	22:00:23	SELECT * FROM users
2025-05-05	22:00:06	INSERT INTO users (email, password) VALUES ('test@example.com', '123456')
2025-05-04	21:59:40	CREATE TABLE users (id INT AUTO_INCREMENT PRIMARY KEY, email VARCHAR(255) NOT NULL UNIQUE, password VARCHAR(255) NOT NULL)
2025-05-03	21:47:27	DROP TABLE resume_db
2025-05-02	21:47:15	DROP TABLE resume_db
2025-04-30	21:47:09	USE resume_db
2025-04-23	22:50:58	SELECT * FROM users
2025-04-22	22:18:29	CREATE TABLE resumes (id INT AUTO_INCREMENT PRIMARY KEY, user_id INT, resume_title VARCHAR(255), created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, FOREIGN KEY (user_id) REFEREN...
	22:18:29	CREATE TABLE users (id INT AUTO_INCREMENT PRIMARY KEY, name VARCHAR(255) NOT NULL, email VARCHAR(255) NOT NULL UNIQUE, password VARCHAR(255) NOT NULL, created_at TIMESTAMP ...

MySQL Workbench

Local MySQL x

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Schema: sys

Query 1

Limit to 1000 rows

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29 #b) GROUP BY and AGGREGATES

30 SELECT customer_state, COUNT(*) AS num_customers

31 FROM customers

32 GROUP BY customer_state;

33

Result Grid

customer_state	num_customers
SP	6
MG	2
PR	1
SC	1

Output

#	Time	Action	Message	Duration / Fetch
8	19:47:38	CREATE TABLE 'ecommerce'.'olist_customers_dataset' ('customer_id' text, 'customer_unique_id' text, 'customer_state' text, 'customer_city' text)	OK	0.000 sec
9	19:47:38	PREPARE stmt FROM 'INSERT INTO 'ecommerce'.'olist_customers_dataset' ('customer_id', 'customer_unique_id', 'customer_state', 'customer_city') VALUES ('0b65999e2ba1a1bcb8172c00ba3bc7', '861ef4711a542e4b93843c6dd7', 'SP', 'franca')	OK	0.000 sec
10	20:03:25	DEALLOCATE PREPARE stmt	OK	0.000 sec
11	21:13:47	INSERT INTO customers (customer_id, customer_unique_id, customer_ip_code_prefix, customer_city, customer_state) VALUES ('0b65999e2ba1a1bcb8172c00ba3bc7', '861ef4711a542e4b93843c6dd7', 'SP', 'franca', 'SP')	Error Code: 1146, Table 'sys.customers' doesn't exist	0.016 sec
12	21:20:26	CREATE TABLE customers (customer_id VARCHAR(50) PRIMARY KEY, customer_unique_id VARCHAR(50) PRIMARY KEY, customer_ip_code_prefix VARCHAR(50) PRIMARY KEY, customer_city VARCHAR(50) PRIMARY KEY, customer_state VARCHAR(50) PRIMARY KEY)	0 row(s) affected	0.047 sec
13	21:20:43	INSERT INTO customers VALUES ('0b65999e2ba1a1bcb8172c00ba3bc7', '861ef4711a542e4b93843c6dd7', 'SP', 'franca', 'SP')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.016 sec
14	21:21:54	SELECT customer_id, customer_city FROM customers WHERE customer_state = 'SP' ORDER BY customer_city	6 row(s) returned	0.000 sec / 0.000 sec
15	21:23:40	SELECT customer_state, COUNT(*) AS num_customers FROM customers GROUP BY customer_state LIMIT 0, 4	4 row(s) returned	0.015 sec / 0.000 sec

Object Info Session

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

MySQL Workbench

Local MySQL x

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Schema: sys

Query 1

Limit to 1000 rows

34 #c) Subqueries

35 SELECT customer_city

36 FROM customers

37 WHERE customer_state = (

38 SELECT customer_state

39 FROM customers

40 GROUP BY customer_state

41 ORDER BY COUNT(*) DESC

42 LIMIT 1

43

Result Grid

customer_city
franca
sao bernardo do campo
sao paulo
campinas
mogi das cruzeiras
sao paulo

Output

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14	21:21:54	SELECT customer_id, customer_city FROM customers WHERE customer_state = 'SP' ORDER BY customer_city	6 row(s) returned	0.000 sec / 0.000 sec
15	21:23:40	SELECT customer_state, COUNT(*) AS num_customers FROM customers GROUP BY customer_state LIMIT 0, 4	4 row(s) returned	0.015 sec / 0.000 sec
16	21:27:09	SELECT customer_city FROM customers WHERE customer_state = (SELECT customer_state FROM customers GROUP BY customer_state ORDER BY COUNT(*) DESC LIMIT 1)	6 row(s) returned	0.016 sec / 0.000 sec

Object Info Session

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