**Задание 1**

Загружаем Orders.csv в mysql.

CREATE TABLE Orders (

client\_id INT,

purchase\_date DATE

);

LOAD DATA INFILE 'C:\\ProgramData\\MySQL\\MySQL Server 8.0\\Uploads\\Orders.csv'

INTO TABLE Orders

FIELDS TERMINATED BY ','

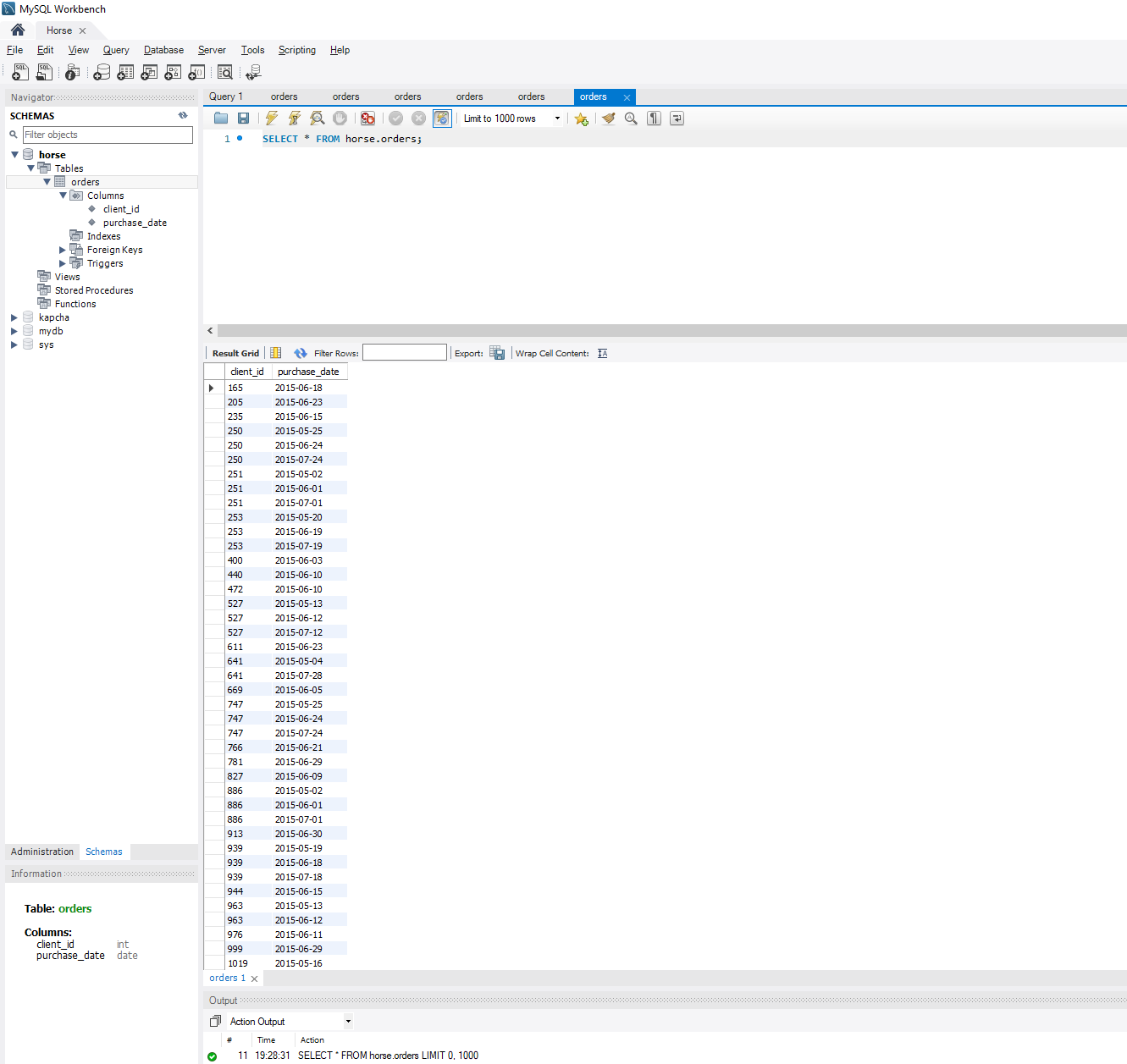
LINES TERMINATED BY '\n'

IGNORE 1 ROWS

(@client\_id, @purchase\_date)

SET client\_id = CAST(@client\_id AS UNSIGNED),

purchase\_date = STR\_TO\_DATE(@purchase\_date, '%m/%d/%Y');



1. **Новые торговые точки:**

WITH first\_orders AS (

SELECT client\_id, MIN(DATE\_FORMAT(purchase\_date, '%Y-%m')) AS first\_month

FROM Orders

GROUP BY client\_id

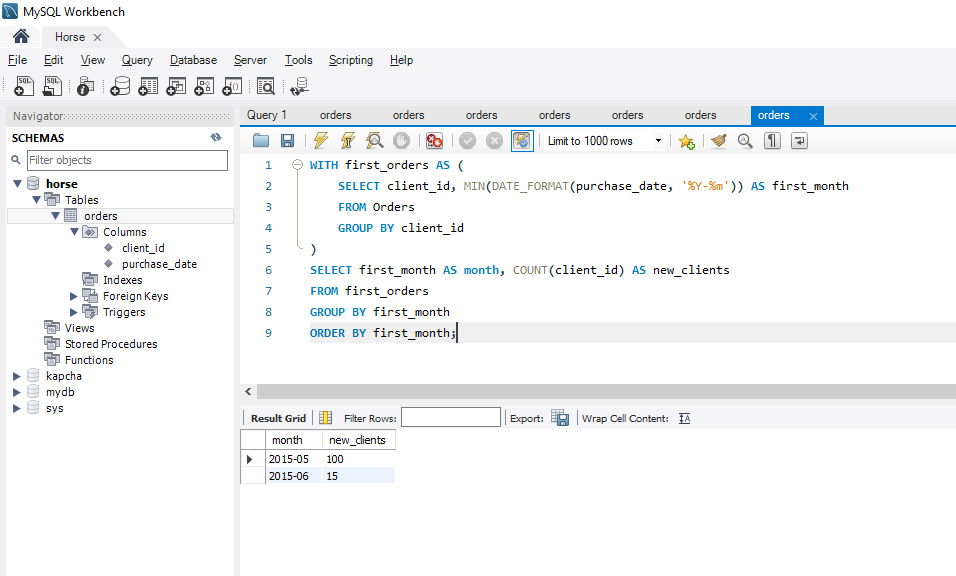
)

SELECT first\_month AS month, COUNT(client\_id) AS new\_clients

FROM first\_orders

GROUP BY first\_month

ORDER BY first\_month;



**2. Торговые точки, сделавшие заказ в прошлом месяце и в этом**

WITH orders\_per\_month AS (

SELECT DISTINCT client\_id, DATE\_FORMAT(purchase\_date, '%Y-%m') AS month

FROM Orders

)

SELECT cur.month, COUNT(cur.client\_id) AS retained\_clients

FROM orders\_per\_month cur

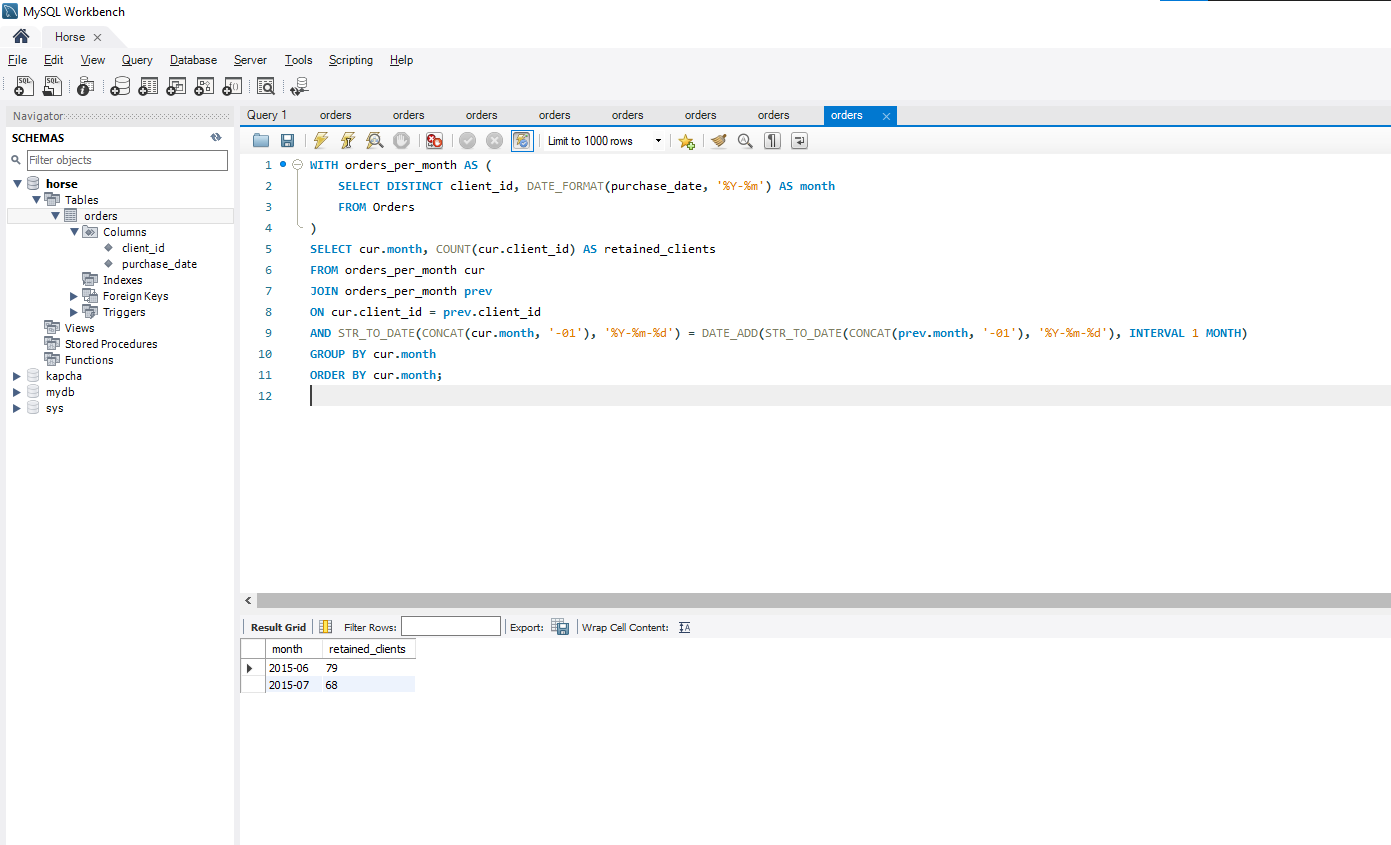
JOIN orders\_per\_month prev

ON cur.client\_id = prev.client\_id

AND STR\_TO\_DATE(CONCAT(cur.month, '-01'), '%Y-%m-%d') = DATE\_ADD(STR\_TO\_DATE(CONCAT(prev.month, '-01'), '%Y-%m-%d'), INTERVAL 1 MONTH)

GROUP BY cur.month

ORDER BY cur.month;



**3. Торговые точки, которые когда-то что-то заказали(только не в прошлом месяце) и вернувшиеся.**

WITH orders\_per\_month AS (

-- Получаем список уникальных (client\_id, month)

SELECT DISTINCT client\_id, DATE\_FORMAT(purchase\_date, '%Y-%m') AS month

FROM Orders

)

SELECT cur.month, COUNT(cur.client\_id) AS returned\_clients

FROM orders\_per\_month cur

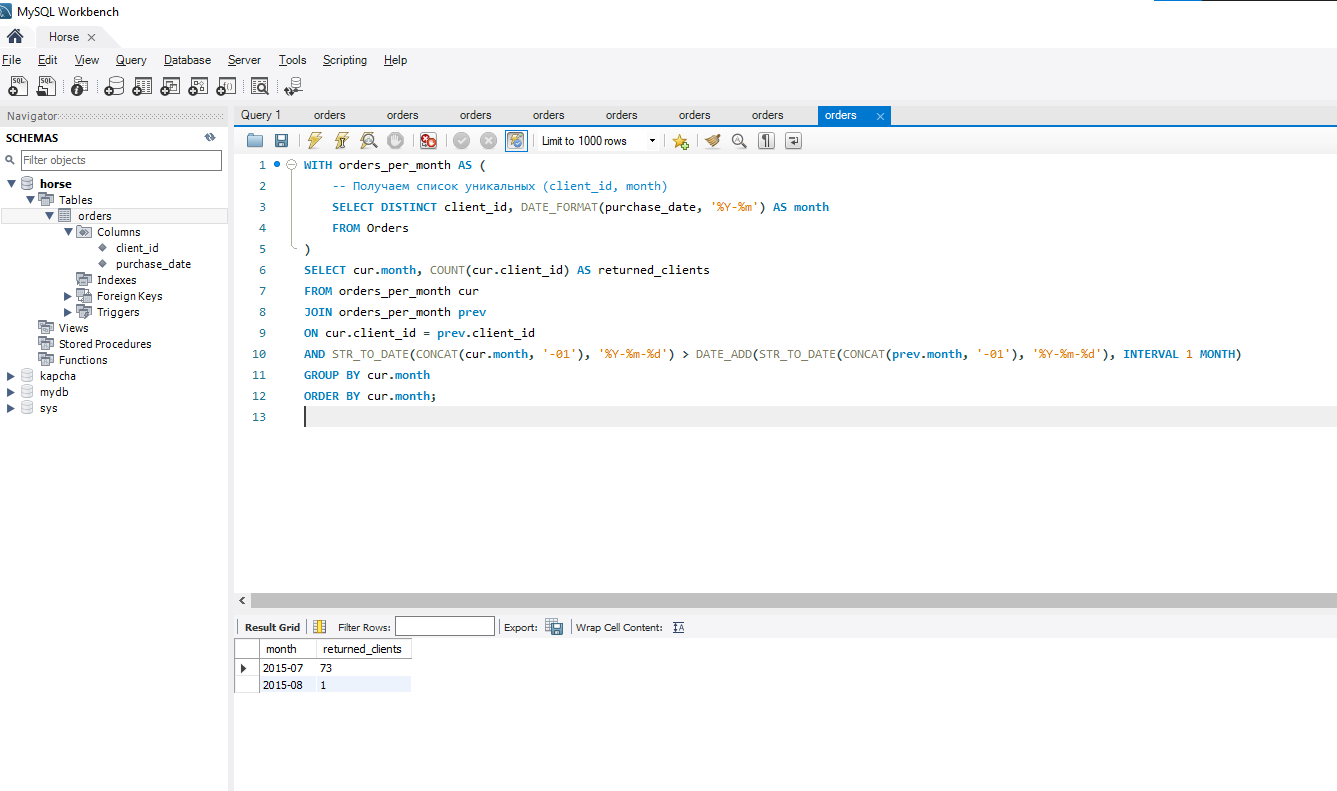
JOIN orders\_per\_month prev

ON cur.client\_id = prev.client\_id

AND STR\_TO\_DATE(CONCAT(cur.month, '-01'), '%Y-%m-%d') > DATE\_ADD(STR\_TO\_DATE(CONCAT(prev.month, '-01'), '%Y-%m-%d'), INTERVAL 1 MONTH)

GROUP BY cur.month

ORDER BY cur.month;



**4. Торговые точки, отвалившиеся в этом месяце.**

WITH orders\_per\_month AS (

SELECT DISTINCT client\_id, DATE\_FORMAT(purchase\_date, '%Y-%m') AS month

FROM Orders

)

SELECT DATE\_FORMAT(

STR\_TO\_DATE(CONCAT(prev.month, '-01'), '%Y-%m-%d') + INTERVAL 1 MONTH, '%Y-%m'

) AS month,

COUNT(prev.client\_id) AS churned\_clients

FROM orders\_per\_month prev

LEFT JOIN orders\_per\_month cur

ON prev.client\_id = cur.client\_id

AND cur.month = DATE\_FORMAT(

STR\_TO\_DATE(CONCAT(prev.month, '-01'), '%Y-%m-%d') + INTERVAL 1 MONTH, '%Y-%m'

)

WHERE cur.client\_id IS NULL

AND prev.month < (SELECT MAX(month) FROM orders\_per\_month)

GROUP BY month

ORDER BY month;

