

ДЗ Язык запросов SQL

Скрипты:

--Создание БД

CREATE database if not exists ClickHouse_OTUS

--Таблица для бизнес кейса

CREATE TABLE Menu

(

dish_id **UInt32** COMMENT 'Уникальный ИД блюда',

name **String** COMMENT 'Название блюда',

category **LowCardinality**(String) **COMMENT** 'Категория',

price **Decimal**(8, 2) COMMENT 'Цена блюда',

is_available **Nullable**(Bool) **COMMENT** 'Доступность для заказа'

)

Engine = MergeTree

Order by

(category,

dish_id)

--CRUD C

INSERT INTO Menu **values** (1, 'Борщ', 'Суп', 250.00, 1)

INSERT INTO Menu **values** (2, 'Цезарь', 'Салат', 400.00, 1)

--R

Select *

From Menu

--where category = 'Суп'

--U

ALTER table Menu update price = 300

where dish_id = 1

--D

ALTER table Menu delete

where dish_id = 2

--Изменение структуры таблицы

ALTER table Menu add column calories **UInt16 comment** 'Калорийность';

ALTER table Menu add column description **String comment** 'Описание блюда';

ALTER table Menu drop column is_available ;

ALTER table Menu drop column description;

--Sample

Select *

from system.numbers

limit 10

--Sample

Select *

from datasets.hits_v1 *hv*

limit 10

--Материализация таблицы

create table Menu_copy

engine = MergeTree

order by

dish_id

as

select

*

from

Menu

--Партиции

Create table orders

(

order_id **UInt32**,

dish_id **UInt32**,

order_date **Date**

)

engine = MergeTree

Partition by toYYYYMM(order_date)

order by

(order_date,

order_id)

--открепить партицию

alter table orders **detach partition** '202309'

--возобновить партицию

alter table orders **attach partition** '202309'

--Удалить данные и структуру

alter table orders **drop partition** '202308'

--Обратно

INSERT into orders values (1, 1, '2023-09-01')

Скрины:

The screenshot shows the DBeaver 25.1.5 interface with a SQL editor and a results pane. The SQL editor contains the following queries:

```
10 from system.tables
11
12 •select *
13 from system.asynchronous_metric_log aml
14
15 •select *
16 from system.collams
17
18 •select *
19 from system.parts --парти
20 where table = 'hits_v1'
21
22 --Только завершенные запросы
23 •SELECT query_start_time, query, type
24 FROM system.query_log
25 WHERE type = 'QueryFinish'
26 ORDER BY query_start_time DESC
27 LIMIT 20;
28
29 --Ошибки в запросах
30 SELECT query_start_time, query, exception
31 FROM system.query_log
32 WHERE exception != ''
33 ORDER BY query_start_time DESC
```

The results pane shows the output of the first query, displaying a list of queries with columns: query_start_time, query, and type. The results are sorted by query_start_time in descending order.

query_start_time	query	type
2025-09-13 01:51:13	--Только завершенные запросы	QueryFinish
2025-09-13 01:51:13	SELECT query_start_time, query, type FROM system.query_log WHERE type = 'QueryFinish' ORDER BY query_start_time DESC LIMIT 10	QueryFinish
2025-09-13 01:02:38	INSERT into orders values	QueryFinish
2025-09-13 00:58:48	--Удалить данные и структуру	QueryFinish
2025-09-13 00:57:19	--возобновить партицию	QueryFinish
2025-09-13 00:56:45	--открепить партицию	QueryFinish
2025-09-13 00:56:20	SELECT name AS TABLE_SCHEM, '' AS TABLE_CATALOG FROM system.databases WHERE name LIKE 'orders'	QueryFinish
2025-09-13 00:56:20	SELECT '' AS TABLE_CAT, '' AS FUNCTION_SCHEM, '' AS FUNCTION_NAME, '' AS REMARKS, 0 AS FUNCTION_TYPE, '' AS SPECIFIC_NAME LIMIT 0	QueryFinish
2025-09-13 00:56:20	SELECT '' AS TABLE_CAT, t.database AS TABLE_SCHEM, t.name AS TABLE_NAME, CASE WHEN t.engine LIKE '%Log' THEN 'LOG TABLE' WHEN t.engine in ('Buffer', 'Memory', 'Set') THEN 'MergeTree'	QueryFinish
2025-09-13 00:54:31	--Партиции	QueryFinish
2025-09-13 00:51:03	--Материализация таблицы	QueryFinish
2025-09-13 00:50:39	SELECT name AS TABLE_SCHEM, '' AS TABLE_CATALOG FROM system.databases WHERE name LIKE 'MergeTree'	QueryFinish
2025-09-13 00:50:39	SELECT '' AS TABLE_CAT, '' AS FUNCTION_SCHEM, '' AS FUNCTION_NAME, '' AS REMARKS, 0 AS FUNCTION_TYPE, '' AS SPECIFIC_NAME LIMIT 0	QueryFinish
2025-09-13 00:50:39	SELECT '' AS TABLE_CAT, t.database AS TABLE_SCHEM, t.name AS TABLE_NAME, CASE WHEN t.engine LIKE '%Log' THEN 'LOG TABLE' WHEN t.engine in ('Buffer', 'Memory', 'Set') THEN 'MergeTree'	QueryFinish
2025-09-13 00:50:39	SELECT name AS TABLE_SCHEM, '' AS TABLE_CATALOG FROM system.databases WHERE name LIKE 'Menu_copy'	QueryFinish
2025-09-13 00:50:39	SELECT '' AS FUNCTION_CAT, '' AS FUNCTION_SCHEM, '' AS FUNCTION_NAME, '' AS REMARKS, 0 AS FUNCTION_TYPE, '' AS SPECIFIC_NAME LIMIT 0	QueryFinish
2025-09-13 00:50:39	SELECT '' AS TABLE_CAT, t.database AS TABLE_SCHEM, t.name AS TABLE_NAME, CASE WHEN t.engine LIKE '%Log' THEN 'LOG TABLE' WHEN t.engine in ('Buffer', 'Memory', 'Set') THEN 'MergeTree'	QueryFinish
2025-09-13 00:47:49	SELECT NULL AS TABLE_CAT, system.tables.database AS TABLE_SCHEM, system.tables.name AS TABLE_NAME, trim(c.1) AS COLUMN_NAME, c.2 AS KEY_SEQ, 'PRIMARY' AS PK_NAME FROM system.tables	QueryFinish
2025-09-13 00:47:49	--Sample	QueryFinish

