

1) Создание таблиц

```
CREATE TABLE events_main
(
    event_id UInt64,
    user_id UInt32,
    event_time DateTime,
    event_type String,
    page_url String,
    country String
)
ENGINE = ReplacingMergeTree()
PARTITION BY toStartOfMinute(event_time)
ORDER BY event_id;

CREATE TABLE events_archive
(
    event_id UInt64,
    user_id UInt32,
    event_time DateTime,
    event_type String,
    page_url String,
    country String
)
ENGINE = ReplacingMergeTree()
PARTITION BY toStartOfMinute(event_time)
ORDER BY event_id;
```

2) Заполнение данными

```
-- Партиция 1: 2025-01-15 10:00:00
INSERT INTO events_main VALUES
(1, 101, '2025-01-15 10:00:15', 'page_view', '/home', 'USA'),
(2, 102, '2025-01-15 10:00:30', 'click', '/products', 'UK'),
(1, 101, '2025-01-15 10:00:45', 'page_view', '/home', 'USA'); -- дубликат

-- Партиция 2: 2025-01-15 10:01:00
INSERT INTO events_main VALUES
(3, 103, '2025-01-15 10:01:10', 'purchase', '/checkout', 'Germany'),
(4, 104, '2025-01-15 10:01:25', 'page_view', '/about', 'France'),
(3, 103, '2025-01-15 10:01:40', 'purchase', '/checkout', 'Germany'); -- дубликат

-- Партиция 3: 2025-01-15 10:02:00
INSERT INTO events_main VALUES
(5, 105, '2025-01-15 10:02:05', 'login', '/login', 'Spain'),
(6, 106, '2025-01-15 10:02:20', 'logout', '/logout', 'Italy'),
(5, 105, '2025-01-15 10:02:35', 'login', '/login', 'Spain'); -- дубликат
```

Подсчет дубликатов

```
SELECT event_id, count(*) as duplicates_count
FROM events_main
GROUP BY event_id
ORDER BY event_id;
```

| | event_id | duplicates_count |
|---|----------|------------------|
| 1 | 1 | 1 |
| 2 | 2 | 1 |
| 3 | 3 | 1 |
| 4 | 4 | 1 |
| 5 | 5 | 1 |
| 6 | 6 | 1 |

3) Перенос партиций

-- Просмотр существующих партиций

```
SELECT partition, name, rows
FROM system.parts
WHERE table = 'events_main' AND active
ORDER BY partition;
```

-- Копирование первой партиции в архивную таблицу

```
ALTER TABLE events_archive
ATTACH PARTITION '2025-01-15 10:00:00'
FROM events_main;
```

-- Удаление первой партиции из основной таблицы

```
ALTER TABLE events_main
DROP PARTITION '2025-01-15 10:00:00';
```

-- Копирование второй партиции в архивную таблицу

```
ALTER TABLE events_archive
ATTACH PARTITION '2025-01-15 10:01:00'
FROM events_main;
```

-- Удаление второй партиции из основной таблицы

```
ALTER TABLE events_main
DROP PARTITION '2025-01-15 10:01:00';
```

| | A-Z partition | A-Z name | rows |
|---|---------------------|------------------|------|
| 1 | 2025-01-15 10:00:00 | 1736935200_1_1_0 | 2 |
| 2 | 2025-01-15 10:01:00 | 1736935260_2_2_0 | 2 |
| 3 | 2025-01-15 10:02:00 | 1736935320_3_3_0 | 2 |

4) Проверочные запросы

```
SELECT partition, table
FROM system.parts
WHERE database = currentDatabase()
AND (table = 'events_main' OR table = 'events_archive')
GROUP BY partition, table
ORDER BY table, partition;
```

| | A-Z partition ▼ | A-Z table ▼ |
|---|---------------------|----------------|
| 1 | 2025-01-15 10:00:00 | events_archive |
| 2 | 2025-01-15 10:01:00 | events_archive |
| 3 | 2025-01-15 10:02:00 | events_main |

```
SELECT 'events_main' AS table_name, COUNT(*) AS record_count
FROM events_main
UNION ALL
SELECT 'events_archive' AS table_name, COUNT(*) AS record_count
FROM events_archive;
```

| | A-Z table_name ▼ | record_count ▼ |
|---|------------------|----------------|
| 1 | events_main | 2 |
| 2 | events_archive | 4 |