

```
CREATE TABLE tbl1
(
  UserID UInt64,
  PageViews UInt8,
  Duration UInt8,
  Sign Int8,
  Version UInt8
)
ENGINE = CollapsingMergeTree()
ORDER BY UserID;
```

```
CREATE TABLE tbl1
(
  `UserID` UInt64,
  `PageViews` UInt8,
  `Duration` UInt8,
  `Sign` Int8,
  `Version` UInt8
)
ENGINE = CollapsingMergeTree(Sign)
ORDER BY UserID

Query id: 1956da6c-5925-4870-94a3-e94439cd6c34

Ok.

0 rows in set. Elapsed: 0.031 sec.

ch1 :)
```

```
INSERT INTO tbl1 VALUES (4324182021466249494, 5, 146, -1, 1);
INSERT INTO tbl1 VALUES (4324182021466249494, 5, 146, 1, 1),(4324182021466249494, 6,
185, 1, 2);
```

```
SELECT * FROM tbl1;
```

```
SELECT * FROM tbl1 final;
```

```

ch1 :) INSERT INTO tbl1 VALUES (4324182021466249494, 5, 146, -1, 1);

INSERT INTO tbl1 FORMAT Values

Query id: db71a50e-b600-4695-8679-bcbb7fce5ff4

Ok.

1 row in set. Elapsed: 0.040 sec.

ch1 :) INSERT INTO tbl1 VALUES (4324182021466249494, 5, 146, 1, 1),(4324182021466249494, 6, 185, 1, 2);

INSERT INTO tbl1 FORMAT Values

Query id: c2b9748c-8517-4e82-a108-d3f506f53453

Ok.

2 rows in set. Elapsed: 0.008 sec.

ch1 :) SELECT * FROM tbl1;

SELECT *
FROM tbl1

Query id: 919b5113-b434-4974-877e-77cf6a11db6d

1. 

|    | UserID              | PageViews | Duration | Sign | Version |
|----|---------------------|-----------|----------|------|---------|
| 1. | 4324182021466249494 | 6         | 185      | 1    | 2       |



2. 

|    | UserID              | PageViews | Duration | Sign | Version |
|----|---------------------|-----------|----------|------|---------|
| 2. | 4324182021466249494 | 5         | 146      | -1   | 1       |



2 rows in set. Elapsed: 0.007 sec.

ch1 :) SELECT * FROM tbl1 final;

SELECT *
FROM tbl1
FINAL

Query id: b3bf1d2c-c3e3-4cf1-8ae5-1a30c93f1ffc

1. 

|    | UserID              | PageViews | Duration | Sign | Version |
|----|---------------------|-----------|----------|------|---------|
| 1. | 4324182021466249494 | 6         | 185      | 1    | 2       |



1 row in set. Elapsed: 0.004 sec.

ch1 :) █

```

```

CREATE TABLE tbl2
(
    key UInt32,
    value UInt32
)
ENGINE = SummingMergeTree(value)
ORDER BY key;

```

```
ch1 :) CREATE TABLE tbl2
(
  key UInt32,
  value UInt32
)
ENGINE = SummingMergeTree(value)
ORDER BY key;

CREATE TABLE tbl2
(
  `key` UInt32,
  `value` UInt32
)
ENGINE = SummingMergeTree(value)
ORDER BY key

Query id: 03a2b0ba-a207-4107-9328-7afa9007b0d4

Ok.

0 rows in set. Elapsed: 0.014 sec.

ch1 :) █
```

INSERT INTO tbl2 Values(1,1),(1,2),(2,1);

select \* from tbl2;

```
ch1 :) INSERT INTO tbl2 Values(1,1),(1,2),(2,1);
```

```
INSERT INTO tbl2 FORMAT Values
```

Query id: 15c2786f-c9cd-46bd-9fe1-f1a39e6e187c

Ok.

3 rows in set. Elapsed: 0.051 sec.

```
ch1 :) select * from tbl2;
```

```
SELECT *  
FROM tbl2
```

Query id: 4f59b839-a6d2-4b58-b0c4-277cc1c11fe4

	key	value
1.	1	3
2.	2	1

2 rows in set. Elapsed: 0.006 sec.

```
ch1 :) []
```

```
CREATE TABLE tbl3
```

```
(
```

```
  `id` Int32,
```

```
  `status` String,
```

```
  `price` String,
```

```
  `comment` String
```

```
)
```

```
ENGINE = ReplacingMergeTree
```

```
PRIMARY KEY (id)
```

```
ORDER BY (id, status);
```

```
CREATE TABLE tbl3
(
  `id` Int32,
  `status` String,
  `price` String,
  `comment` String
)
ENGINE = ReplacingMergeTree
PRIMARY KEY id
ORDER BY (id, status)
```

Query id: 1e6277bd-d0f8-409a-9475-d4e569505f08

Ok.

0 rows in set. Elapsed: 0.029 sec.

ch1 :) █

```
INSERT INTO tbl3 VALUES (23, 'success', '1000', 'Confirmed');
INSERT INTO tbl3 VALUES (23, 'success', '2000', 'Cancelled');

SELECT * from tbl3 WHERE id=23;
SELECT * from tbl3 FINAL WHERE id=23;
```

```
ch1 :) INSERT INTO tbl3 VALUES (23, 'success', '2000', 'Cancelled');
```

```
INSERT INTO tbl3 FORMAT Values
```

```
Query id: 992556fe-5351-4866-a3b2-f150124f02d2
```

```
Ok.
```

```
1 row in set. Elapsed: 0.009 sec.
```

```
ch1 :) SELECT * from tbl3 WHERE id=23;
```

```
SELECT *  
FROM tbl3  
WHERE id = 23
```

```
Query id: c3fd2603-189c-4b01-8159-dafb731dcedd
```

```
1. 

| id | status  | price | comment   |
|----|---------|-------|-----------|
| 23 | success | 2000  | Cancelled |


```

```
2. 

| id | status  | price | comment   |
|----|---------|-------|-----------|
| 23 | success | 1000  | Confirmed |


```

```
2 rows in set. Elapsed: 0.012 sec.
```

```
ch1 :) SELECT * from tbl3 FINAL WHERE id=23;
```

```
SELECT *  
FROM tbl3  
FINAL  
WHERE id = 23
```

```
Query id: d997d715-4e60-4063-b34d-3190d5b3605b
```

```
1. 

| id | status  | price | comment   |
|----|---------|-------|-----------|
| 23 | success | 2000  | Cancelled |


```

```
1 row in set. Elapsed: 0.070 sec.
```

```
ch1 :) █
```

```
CREATE TABLE tbl4  
( CounterID UInt8,  
  StartDate Date,  
  UserID UInt64  
) ENGINE = MergeTree  
PARTITION BY toYYYYMM(StartDate)  
ORDER BY (CounterID, StartDate);
```

```
INSERT INTO tbl4 VALUES(0, '2019-11-11', 1);
```

```
INSERT INTO tbl4 VALUES(1, '2019-11-12', 1);
```

```

CREATE TABLE tbl4
(
    `CounterID` UInt8,
    `StartDate` Date,
    `UserID` UInt64
)
ENGINE = MergeTree
PARTITION BY toYYYYMM(StartDate)
ORDER BY (CounterID, StartDate)

Query id: 00bb3a41-50c5-4a41-a4e1-32f0a9842fe6

Ok.

0 rows in set. Elapsed: 0.021 sec.

ch1 :) INSERT INTO tbl4 VALUES(0, '2019-11-11', 1);

INSERT INTO tbl4 FORMAT Values

Query id: 250cd082-6e57-48ee-b3b7-751b511df919

Ok.

1 row in set. Elapsed: 0.011 sec.

ch1 :)
ch1 :) INSERT INTO tbl4 VALUES(1, '2019-11-12', 1);

INSERT INTO tbl4 FORMAT Values

Query id: 911976d3-353a-4d1c-8d5f-cb5923f0526f

Ok.

1 row in set. Elapsed: 0.007 sec.

ch1 :) █

```

```

CREATE TABLE tbl5
( CounterID UInt8,
  StartDate Date,
  UserID AggregateFunction(uniq, UInt64)
) ENGINE = AggregatingMergeTree
PARTITION BY toYYYYMM(StartDate)
ORDER BY (CounterID, StartDate);

```

```

CREATE TABLE tbl5
(
    `CounterID` UInt8,
    `StartDate` Date,
    `UserID` AggregateFunction(uniq, UInt64)
)
ENGINE = AggregatingMergeTree
PARTITION BY toYYYYMM(StartDate)
ORDER BY (CounterID, StartDate)

```

Query id: 1aef97fe-6f48-4488-862e-261935dc95b8

Ok.

0 rows in set. Elapsed: 0.029 sec.

```

INSERT INTO tbl5
select CounterID, StartDate, uniqState(UserID)
from tbl4
group by CounterID, StartDate;

```

```

INSERT INTO tbl5 SELECT
    CounterID,
    StartDate,
    uniqState(UserID)
FROM tbl4
GROUP BY
    CounterID,
    StartDate

```

Query id: c9c87e66-3747-40a6-8ac7-b36284d0eef0

Ok.

0 rows in set. Elapsed: 0.015 sec.

```

INSERT INTO tbl5 VALUES (1,'2019-11-12',1);

```



```

ch1 :) INSERT INTO tbl5 VALUES (1,'2019-11-12',1);
INSERT INTO tbl5 FORMAT Values
Query id: c0f6e869-13a6-4d43-b1f2-be2059983fac
Ok.
Exception on client:
Code: 53, DB::Exception: Cannot convert UInt64 to AggregateFunction(uniq, UInt64): While executing ValuesBlockInputFormat: data for INSERT was parsed from query. (TYPE_MISMATCH)
ch1 :) █

```

Попытка вставить в tbl5 в поле UserID, но это поле для агрегации(могу термин путать) для вставки как бы формулы для решения на сколько понял.

```

SELECT *
FROM tbl5

```

Query id: 5e1be335-7ce2-4df7-84b0-9e1fa597bbd0

	CounterID	StartDate	UserID
1.	0	2019-11-11	,004
2.	1	2019-11-12	,004

2 rows in set. Elapsed: 0.009 sec.

ch1 :) █

```

SELECT uniqMerge(UserID) AS state
FROM tbl5
GROUP BY CounterID, StartDate;

```

```

SELECT uniqMerge(UserID) AS state
FROM tbl5
GROUP BY
    CounterID,
    StartDate

```

Query id: 1aa9212e-df4f-4a6a-b75d-e6014c1e15a3

	state
1.	1
2.	1

2 rows in set. Elapsed: 0.028 sec.

ch1 :) █

Чтобы получить в обработку новые данные, нужно добавлять в tbl4

```
ch1 :) INSERT INTO tbl4 VALUES (1,'2021-05-12',1);
```

```
INSERT INTO tbl4 FORMAT Values
```

```
Query id: c34956a3-3808-4f94-a916-e994816a67a9
```

```
Ok.
```

```
1 row in set. Elapsed: 0.009 sec.
```

```
SELECT
```

```
    uniqMerge(UserID) AS state,  
    CounterID,  
    StartDate
```

```
FROM tbl5
```

```
GROUP BY
```

```
    CounterID,  
    StartDate
```

```
Query id: 168e3f5c-4614-4bdf-a59a-014f1a2b49ac
```

	state	CounterID	StartDate
1.	1	3	2020-11-12
2.	1	1	2021-11-12
3.	1	1	2019-11-12
4.	1	0	2019-11-11
5.	1	1	2020-11-12

```
5 rows in set. Elapsed: 0.007 sec.
```

```
ch1 :) █
```

```
INSERT INTO tbl5 SELECT
    CounterID,
    StartDate,
    uniqState(UserID)
FROM tbl4
GROUP BY
    CounterID,
    StartDate
```

Query id: 382d2bf9-c590-4358-88d8-e6e078f0790e

Ok.

0 rows in set. Elapsed: 0.031 sec.

```
SELECT
    uniqMerge(UserID) AS state,
    CounterID,
    StartDate
FROM tbl5
GROUP BY
    CounterID,
    StartDate
```

Query id: bf06dd06-37ae-490c-8f05-69b495a379ae

	state	CounterID	StartDate
1.	1	3	2020-11-12
2.	1	1	2021-11-12
3.	1	1	2019-11-12
4.	1	0	2019-11-11
5.	1	1	2021-05-12
6.	1	1	2020-11-12

6 rows in set. Elapsed: 0.007 sec.

---

```
CREATE TABLE tbl6
```

```
(
```

```
    `id` Int32,
    `status` String,
    `price` String,
    `comment` String,
    `sign` Int8
```

```
)  
ENGINE = CollapsingMergeTree(sign)  
PRIMARY KEY (id)  
ORDER BY (id, status);
```

```
CREATE TABLE tbl6  
(  
    `id` Int32,  
    `status` String,  
    `price` String,  
    `comment` String,  
    `sign` Int8  
)  
ENGINE = CollapsingMergeTree(sign)  
PRIMARY KEY id  
ORDER BY (id, status)  
  
Query id: 561a6d6b-befd-4262-b0ce-5eda7113fc77  
  
Ok.  
  
0 rows in set. Elapsed: 0.029 sec.
```

```
INSERT INTO tbl6 VALUES (23, 'success', '1000', 'Confirmed', 1);  
INSERT INTO tbl6 VALUES (23, 'success', '1000', 'Confirmed', -1), (23, 'success', '2000',  
'Cancelled', 1);
```

```
SELECT * FROM tbl6;  
SELECT * FROM tbl6 FINAL;
```

chl :) **INSERT INTO** tbl6 **VALUES** (23, 'success', '1000', 'Confirmed', 1);

**INSERT INTO** tbl6 **FORMAT** Values

Query id: 37732f58-2555-4b5a-9060-6d6c7458b39b

Ok.

1 row in set. Elapsed: 0.021 sec.

chl :) **INSERT INTO** tbl6 **VALUES** (23, 'success', '1000', 'Confirmed', -1), (23, 'success', '2000', 'Cancelled', 1);

**INSERT INTO** tbl6 **FORMAT** Values

Query id: fiabecbe-67a2-48ea-872c-19c651566a5a

Ok.

2 rows in set. Elapsed: 0.008 sec.

chl :) **SELECT** \* **FROM** tbl6;

**SELECT** \*  
**FROM** tbl6

Query id: f278e6c1-bdc0-4fb3-a372-e41baea707cb

	id	status	price	comment	sign
1.	23	success	1000	Confirmed	-1
2.	23	success	2000	Cancelled	1

	id	status	price	comment	sign
3.	23	success	1000	Confirmed	1

3 rows in set. Elapsed: 0.009 sec.

chl :) **SELECT** \* **FROM** tbl6 **FINAL**;

**SELECT** \*  
**FROM** tbl6  
**FINAL**

Query id: 3c384a85-e9ad-4acd-abba-1f37f4fc4c72

	id	status	price	comment	sign
1.	23	success	2000	Cancelled	1

1 row in set. Elapsed: 0.009 sec.

chl :) █