

Словари, оконные и табличные функции

- Создал таблицу-источник, словарь, наполнил их данными:

```
CREATE TABLE dict_source
```

```
(  
  `id` UInt64,  
  `email` String  
)
```

```
ENGINE = MergeTree
```

```
ORDER BY id
```

```
insert into dict_source values
```

```
(1, 'kawougreuseppa-4746@yopmail.com'),  
(2, 'feprigramumou-9357@yopmail.com'),  
(3, 'veinefresoisa-7835@yopmail.com'),  
(4, 'culeratrofrei-6963@yopmail.com');
```

```
CREATE DICTIONARY usr_dict
```

```
(  
  `id` UInt64,  
  `email` String  
)
```

```
PRIMARY KEY id
```

```
SOURCE(CLICKHOUSE(TABLE 'dict_source'))
```

```
LIFETIME(MIN 0 MAX 300)
```

```
LAYOUT(FLAT())
```

- Создал таблицу для данных и наполнил данными:

```
CREATE TABLE foo
```

```
(  
  `user_id` UInt64,  
  `action` String,  
  `expense` UInt64  
)
```

```
ENGINE = MergeTree
```

```
ORDER BY user_id
```

```
insert into foo(user_id, action, expense) values
```

```
(1, 'insert', 100),  
(2, 'delete', 300),  
(3, 'insert', 200),
```

```
(4, 'update', 500),  
(1, 'insert', 700),  
(2, 'delete', 300),  
(3, 'insert', 600),  
(4, 'update', 500),  
(1, 'insert', 100),  
(2, 'delete', 300),  
(3, 'insert', 400),  
(4, 'update', 500);
```

- Сформировал запрос с оконной функцией по action:

```
SELECT  
  dictGet('usr_dict', 'email', user_id) AS email,  
  sum(expense) OVER (PARTITION BY action) AS expense_sum  
FROM foo  
ORDER BY email ASC
```

	email	expense_sum
1.	culeratrofrei-6963@yopmail.com	1500
2.	culeratrofrei-6963@yopmail.com	1500
3.	culeratrofrei-6963@yopmail.com	1500
4.	feprigramumou-9357@yopmail.com	900
5.	feprigramumou-9357@yopmail.com	900
6.	feprigramumou-9357@yopmail.com	900
7.	kawougreuseppa-4746@yopmail.com	2100
8.	kawougreuseppa-4746@yopmail.com	2100
9.	kawougreuseppa-4746@yopmail.com	2100
10.	veinefresoisa-7835@yopmail.com	2100
11.	veinefresoisa-7835@yopmail.com	2100
12.	veinefresoisa-7835@yopmail.com	2100