Есть таблица с атрибутами клиента c полями (CLIENT\_ID, ATRIB, ATRIB\_VALUE) – Клиент, Название атрибута, Значение атрибута.

Изучить массив данных и получить таблицу, в которой CLIENT\_ID будет ключом, а в полях будут разные атрибуты клиента из исходной таблицы.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | CLIENT\_ID | ATRIB1 | ATRIB2 | …. | ATRIBN |
| 1 |  | ATRIB\_VALUE1 | ATRIB\_VALUE2 | … | ATRIB\_VALUEN |
| 2 |  | …. | …. | …. | …. |
| …. |  | …. | …. | …. | …. |
| N |  | …. | …. | …. | …. |

**Транспонирование таблицы:**

**1.**

**--find new columns:**

**--select distinct atrib from atr1 order by atrib**

**Допустим, нашлось три атрибута.**

**2. способ 1**

**select distinct a0.client\_id,**

**a1.atrib\_value as atrib1,**

**a2.atrib\_value as atrib2,**

**a3.atrib\_value as atrib3**

**from atr1 as a0**

**LEFT JOIN atr1 as a1**

**ON a0.client\_id = a1.client\_id and a1.atrib = 'atrib1'**

**LEFT JOIN atr1 as a2**

**ON a0.client\_id = a2.client\_id and a2.atrib = 'atrib2'**

**LEFT JOIN atr1 as a3**

**ON a0.client\_id = a3.client\_id and a3.atrib = 'atrib3'**

**order by a0.client\_id**

**2. способ 2**

**select client\_id,**

**MAX(CASE when atrib='atrib1' then atrib\_value end) as atrib1,**

**MAX(CASE when atrib='atrib2' then atrib\_value end) as atrib2,**

**MAX(CASE when atrib='atrib3' then atrib\_value end) as atrib3**

**from atr1**

**group by client\_id**

**order by client\_id**

**2. способ 3**

**CREATE EXTENSION IF NOT EXISTS tablefunc;**

**SELECT \* FROM crosstab('select client\_id, atrib, atrib\_value from atr1 order by 1,2')**

**AS ct (client\_id int, atrib1 character varying, atrib2 character varying, atrib3 character varying);**

**-------------------------------------------- лучший вариант:-----------------------------------------------**

**Если число атрибутов не постоянное, можно найти их и сформировать из них строку для вставки в sql код:**

**DO $$DECLARE r record; l character varying; ll character varying;**

**BEGIN**

**FOR r IN SELECT distinct atrib from atr1 order by atrib**

**LOOP**

**l = concat(l,', ',r.atrib,' character varying');**

**raise notice '%', 'l = '|| l;**

**END LOOP;**

**ll = concat('create table if not exists atr2 as**

**SELECT \* FROM crosstab(''select client\_id, atrib, atrib\_value from atr1 order by 1,2'',**

**''select distinct atrib from atr1'')**

**AS ct (client\_id int ', l,')') ;**

**raise notice '%', 'll = '|| ll;**

**--CREATE EXTENSION IF NOT EXISTS tablefunc;**

**EXECUTE ll;**

**END$$;**

**select \* from atr2;**

**---------------------------------------------------------------------------------------------------------------**