PU functions PQL Cheat Sheet

PU functions

available since Celonis 4

Syntax

```
PU_X("Child", "Parent"."Column", filter_condition)
```

```
PU_FIRST("Child", "Parent"."Column",
filter_condition, order by "Parent"."Column2")
```

```
PU_LAST("Child", "Parent"."Column",
filter_condition, order by "Parent"."Column2")
```

PU functions aggregate values from the Parent table to the Child table. PU functions don't respect **FILTER**s. Instead, a filter condition can be passed as a third argument. The result of the PU function is added to the Child table as a ***temporary column*** and can be used like a regular column (e.g. inside other PQL functions).

Example

```
PU_COUNT("Cases", "Activities"."Activity")
```

CASES

Case	Country			
1	DE	3
2	US	2

leads to

When to use PU functions?

a) In FILTERs.

Filter on Cases with > 3 Activities:

```
FILTER PU_COUNT("Cases",
"Activities"."Activity") > 3
```

b) In nested Aggregations.

Find the maximum number of Activities in a Case:

```
MAX(PU_COUNT("Cases", "Activities"."Activity"))
```

c) For Performance reasons.

PU aggregations are faster than standard aggregations.

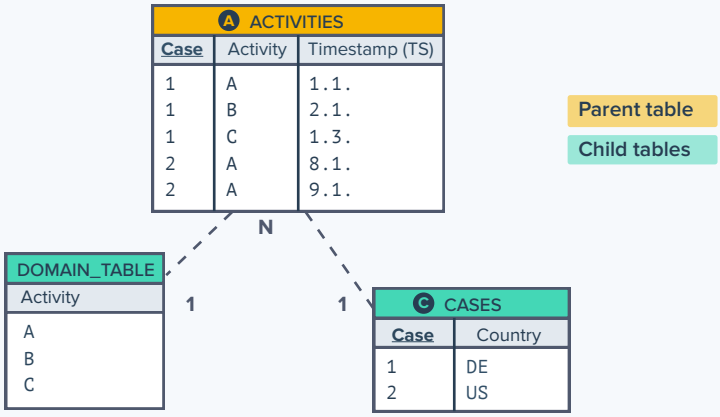
Important links

PQL Function Library (Documentation) on the Celonis Help Page

community.celonis.com for support and exchange

For feedback on content or design please contact d.becher@celonis.com

Example Data Model



DOMAIN_TABLE

available since Celonis 4.5

DOMAIN_TABLE generates a temporary table with all the distinct values from the specified column(s).
It is a Child table joined to the common parent of the specified column(s).

The **DOMAIN_TABLE** can only be used in the first argument of a PU function. Like in a regular table, the result of the PU function is added as a column to the DOMAIN_TABLE

When to use DOMAIN_TABLE?

You want to use a PU function to aggregate columns of a Parent table for something which:

a) is not a table.

e.g. Count the number of Activities for each month:

```
PU_COUNT(DOMAIN_TABLE(
ROUND_MONTH("Activities".
"Timestamp")),"Activities
"."Activity");
```

→

DOMAIN_TABLE

Month	
1	4
3	1

b) is also in the parent table.

e.g. Count the number of occurrences of each Activity:

```
PU_COUNT(DOMAIN_TABLE(
"Activities"."Activity"),
"Activities"."Activity")
```

→

DOMAIN_TABLE

Activity	
A	3
B	1
C	1

c) is distributed in multiple tables.

Count the number of occurrences of each Activity per country:

```
PU_COUNT(DOMAIN_TABLE(
"Activities"."Activity",
"Cases"."Country"),
"Activities"."Activity")
```

→

DOMAIN_TABLE

Activity	Country	
A	DE	1
B	DE	1
C	DE	1
A	US	2