Package ‘omopr’

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Type Package

Title OMOP CDM Databases using the Tidyverse

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Description Utility functions for querying electronic health record (EHR) data in 'OMOP' Common Data Model <https://www.ohdsi.org/data-standardization/the-common-data-model/> databases using a 'tidyverse' approach based on 'dbplyr' lazy queries. This allows efficient in-database querying and data wrangling without explicit writing of 'SQL' queries.

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Depends R(>= 3.0.0), dbplyr, dplyr, DBI, RSQLite

Suggests knitr, rmarkdown

VignetteBuilder knitr

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R topics documented:

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concept_names

Resolve concept names in the supplied lazy table reference

Description

This function accepts a (lazy) tibble and for each variable of the form XXX_concept_id adds a corresponding variable XXX_concept_name obtained by (left) joining against the concept table of the 'CDM'.

Usage

```r
calendar_names(tibl, names = NULL, cin = omopr.global$cin,
               verb = FALSE, fill = FALSE, copy = FALSE)
```

Arguments

- `tibl`: A (lazy) reference to a tibble.
- `names`: An optional list of concept_ids to be resolved. Defaults to all.
- `cin`: A (lazy) reference to a vocabulary tibble with variables concept_id and concept_name, used to resolve the concepts.
- `verb`: If true, print progress to the console.
- `fill`: If true, fill non-matching concept names with a string conversion of the concept ID.
- `copy`: copy arg to be passed to `left_join`. Will need to be true if input tibble is not a lazy reference, but will be very slow in that case. Work with lazy references as long as possible.

Value

A named list with elements corresponding to `dbplyr` lazy tibble references.

See Also

- `omopr_init`, `row_counts`

Examples

```r
con = omopr:::dummy_con() # dummy connection to allow example to run

tRefs = omopr_init(con)
tRefs[["measurement"]]
```
Initialise connection to an 'OMOP' 'CDM' database and get list of table references

Description
This function checks a connection to an 'OMOP' 'CDM' database and creates and returns a list of lazy 'dbplyr' table references corresponding to the available 'CDM' tables.

Usage
omopr_init(con, schema = NULL)

Arguments
con
A database connection, such as returned by the function dbConnect.
schema
Optional string name of a database schema in which the 'OMOP' 'CDM' tables are stored. Potential examples include "public", "dbo", "omop", "cdm", "data", etc.

Value
A named list with elements corresponding to dbplyr lazy tibble references.

See Also
concept_names, row_counts

Examples
# con = DBI::dbConnect(RPostgres::Postgres(), dbname = "omopdb")
con = omopr:::dummy_con() # dummy connection to allow example to run

tRefs = omopr_init(con)
tRefs[["person"]]
row_counts(tRefs)

Compute row counts for supplied list of tables

Description
This function accepts a list of tibbles (such as returned by omopr_init) and computes the number of rows of data for each, returning the result as a tibble.
Usage

row_counts(listOfTblRefs)

Arguments

listOfTblRefs A list of tibbles.

Value

A tibble containing the table names and their row counts.

See Also

omopr_init, concept_names

Examples

con = omopr:::dummy_con() # dummy connection to allow example to run

tRefs = omopr_init(con)
row_counts(tRefs)
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