Package 'mongoTable'

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Title mongoTable

Version 1.0.0

Description Contains the function mongoTable() to aggregate one-dimensional and two-dimensional frequency tables from data stored in a MongoDB database.

Depends R (>= 4.1.0)

Imports mongolite

License GPL-3

Encoding UTF-8

URL https://github.com/ingmarboeschen/mongoTable

RoxygenNote 7.3.2

R topics documented:

`mongoTable` *mongoTable*

Description

This function generates one-dimensional and two-dimensional frequency tables from data stored in a MongoDB database. Rather than retrieving the entire dataset through a 'find()' operation, this function leverages MongoDB's aggregation capabilities to compile frequency data directly on the server, followed by post-processing in R.

Usage

```
mongoTable(
  connection,
  x,
  y = NULL,
  query = "{}",
  lowerize = FALSE,
  limit = NULL,
  sort = FALSE,
  decreasing = TRUE
)
```

Arguments

connection	A character vector representing a MongoDB connection object initialized with ‘mongolite::mongo()‘.
x	A character string specifying the first field variable for which frequencies should be computed.
y	An optional character string specifying a second field variable for which frequencies should also be computed.
query	An optional character string representing a MongoDB query used to filter data (e.g., ‘’ "year": 2024 ’‘).
lowerize	A logical value that, when set to ‘TRUE‘, converts all level names in one-dimensional frequency tables to lowercase.
limit	An integer value that specifies the maximum number of entries or dimensions in the output table.
sort	A logical value indicating whether the output should be sorted by frequency. Defaults to ‘FALSE‘.
decreasing	A logical value that, when set to ‘TRUE‘ and ‘sort‘ is also ‘TRUE‘, returns the output sorted by decreasing frequencies. If ‘TRUE‘ while ‘sort‘ is ‘FALSE‘, the level names in the output are listed in decreasing order.

Value

A frequency table, either one-dimensional or two-dimensional, based on the specified parameters.

Examples

```
## use mongolite::mongo() to connect to a MongoDB instance (demo server)
mon <- mongolite::mongo("mtcars", url =
"mongodb+srv://readwrite:test@cluster0-84vdt.mongodb.net/test")
# Make sure to drop any existing collection before inserting
if(mon$count() > 0) mon$drop()
# Insert the 'mtcars' dataset into the MongoDB collection
mon$insert(mtcars)
# Verify that the number of documents inserted matches the number of rows in 'mtcars'
stopifnot(mon$count() == nrow(mtcars))
```

```
## Create a one-dimensional frequency table
# for all x
mongoTable(connection = "mon", x = "cyl")
# for all x matching a query (cars with mpg greater than 20)
mongoTable(connection="mon", x="cyl", query = '{\"mpg\": {\"$gt": 20}}')

## Create a two-dimensional frequency table
# for all x and y
mongoTable(con = "mon", x = "cyl", y = "gear")
# for all x and y matching a query  (cars with mpg greater than 20)
mongoTable(con="mon", x = "cyl", y = "gear", query = '{\"mpg\": {\"$gt": 20}}')
```

Index