

Package ‘plotDK’

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Title Plot Summary Statistics as Choropleth Maps of Danish Administrative Areas

Description Provides a ggplot2 front end to plot summary statistics on danish provinces, regions, municipalities, and zipcodes. The needed geoms of each of the four levels are inherent in the package, thus making these types of plots easy for the user. This is essentially an updated port of the previously available 'mapDK' package by Sebastian Barfort.

Version 0.1.0

Depends R (>= 4.0)

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Imports dplyr, ggplot2 (>= 3.1.0), mapproj, plotly, purrr, rlang

Suggests testthat

NeedsCompilation no

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create_plot_data	<i>Create Plot Data</i>
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Description

If data is provided, this functions attempts to merge the provided data with the geom-data inherent in the package on the chosen plotlevel. If no data is provided, only the geom-data for the chosen plotlevel is returned. This data is used to create the DK-plot.

Usage

```
create_plot_data(data, id, plotlevel, show_missing = FALSE, ...)
```

Arguments

data	A data.frame containing an ID-variable specifying either a municipality, region, province or zipcode (see id), as well as a value-variable containing any value to be plotted on the chosen level.
id	A character specifying the name of a column in data containing the ID on the chosen level. For municipalities these variables can be either; <ul style="list-style-type: none"> • A character-variable with danish municipality names. For accepted values see municipality_info. • A numeric/integer-variable with official municipality numbers. For accepted values see municipality_info. For regions these variables can either; <ul style="list-style-type: none"> • A character-variable with danish region names. For accepted values see region_info. • A numeric/integer-variable with danish region numbers. For accepted values see region_info. For provinces these variables can be either; <ul style="list-style-type: none"> • A character-variable with danish province names. For accepted values see province_info. • A numeric/integer-variable with danish province numbers. For accepted values see province_info. For zip-codes these variables can be; <ul style="list-style-type: none"> • A numeric/integer-variable with danish zip-codes. For accepted values see zipcode_info.
plotlevel	character, indicating which level to plot. Valid options are "municipality", "region", "province", and "zipcode".
show_missing	logical. Should levels not present in data or with NA-values be printed? This can be used to plot only a subset of entities.
...	Further arguments to pass to merge_data

Value

A data.frame with either raw geom-data or geom-data merged with any data provided.

municipality	<i>Municipality data with keys and polygon-geoms for municipalities of Denmark</i>
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Description

Municipality data with keys and polygon-geoms for municipalities of Denmark

Usage

```
municipality
```

Format

A data frame with 39,230 rows and 7 columns:

long Longitude coordinates.

lat Latitude coordinates.

order Order of coordinates in geoms.

group Geom groups.

id Name of entity.

id_numeric Number of entity.

hole Indication of a geom hole.

Source

Statistics Denmark

municipality_info	<i>Information of Valid Municipality Names and Numbers</i>
-------------------	--

Description

Information of Valid Municipality Names and Numbers

Usage

```
municipality_info
```

Format

A data frame with 99 rows and 2 columns:

municipality_names Valid names of municipalities.

municipality_numbers Valid numbers of municipalities.

Source

Statistics Denmark

plotDK	<i>Generate choropleth maps of Danish Municipalities, Regions, Provinces and Zip-areas</i>
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Description

Draws a map that highlights any value of interest across either danish municipalities, regions, provinces or zip-codes. This is essentially a ggplot2-wrapper incorporating geoms of danish municipalities, regions, provinces and zipcodes. Therefore the output is compatible with further ggplot2 elements.

Usage

```
plotDK(
  data = NULL,
  id = NULL,
  value = NULL,
  plotlevel = "municipality",
  show_missing = FALSE,
  show_borders = TRUE,
  interactive = FALSE,
  titel = NULL
)
```

Arguments

data A data.frame containing an ID-variable specifying either a municipality, region, province or zipcode (see id), as well as a value-variable containing any value to be plotted on the chosen level.

id A character specifying the name of a column in data containing the ID on the chosen level.

For municipalities these variables can be either;

- A character-variable with danish municipality names. For accepted values see [municipality_info](#).
- A numeric/integer-variable with official municipality numbers. For accepted values see [municipality_info](#).

For regions these variables can either;

- A character-variable with danish region names. For accepted values see [region_info](#).
- A numeric/integer-variable with danish region numbers. For accepted values see [region_info](#).

For provinces these variables can be either;

- A character-variable with danish province names. For accepted values see [province_info](#).
- A numeric/integer-variable with danish province numbers. For accepted values see [province_info](#).

For zip-codes these variables can be;

- A numeric/integer-variable with danish zip-codes. For accepted values see [zipcode_info](#).

value	numeric-, factor- or character-variabel to be plotted on the map. Note that character-variables will be naively translated to factors behind the scenes. For full control over levels, pre-convert to a factor.
plotlevel	character, indicating which level to plot. Valid options are "municipality", "region", "province", and "zipcode".
show_missing	logical. Should levels not present in data or with NA-values be printed? This can be used to plot only a subset of entities.
show_borders	logical. Should geom borders be drawn?
interactive	logical. Should the plot be converted to an interactive plotly plot?
titel	character. Optional plot title.

Value

A ggplot object.

Examples

```
## Empty plot
plotDK()

province_data <- data.frame(
  province_name = c(
    "nordjylland",
    "østjylland",
    "vestjylland",
    "fyn",
    "sydjylland",
    "vest-og-syd-sjælland",
    "øst-sjælland",
    "københavns-området",
    "byen København",
    "bornholm",
    "nordsjælland"
```

```

),
value = 1:11,
stringsAsFactors = FALSE
)

```

province	<i>Province data with keys and polygon-geoms for provinces of Denmark</i>
----------	---

Description

Province data with keys and polygon-geoms for provinces of Denmark

Usage

```
province
```

Format

A data frame with 4,083 rows og 7 columns:

long Longitude coordinates.

lat Latitude coordinates.

order Order of coordinates in geoms.

group Geom groups.

id Name of entity.

id_numeric Number of entity.

hole Indication of a geom hole.

@source Statistics Denmark

province_info	<i>Information of Valid Province Names and Numbers</i>
---------------	--

Description

Information of Valid Province Names and Numbers

Usage

```
province_info
```

Format

A data frame with 11 rows and 2 columns:

province_names Valid names of provinces.

province_numbers Valid numbers of provinces.

Source

Statistics Denmark

region

Region data with keys and polygon-geoms for regions of Denmark

Description

Region data with keys and polygon-geoms for regions of Denmark

Usage

region

Format

A data frame with 32,522 rows and 7 columns:

long Longitude coordinates.

lat Latitude coordinates.

order Order of coordinates in geoms.

group Geom groups.

id Name of entity.

id_numeric Number of entity.

hole Indication of a geom hole.

Source

Statistics Denmark

region_info	<i>Information of Valid Region Names and Numbers</i>
-------------	--

Description

Information of Valid Region Names and Numbers

Usage

region_info

Format

A data frame with 5 observations and 2 columns:

region_names Valid names of regions.

region_numbers Valid numbers of regions.

Source

Statistics Denmark

zipcodes	<i>Zipcode data with keys and polygon-geoms for zipcodes of Denmark</i>
----------	---

Description

Zipcode data with keys and polygon-geoms for zipcodes of Denmark

Usage

zipcodes

Format

A data frame with 49,322 rows and 7 columns:

long Longitude coordinates.

lat Latitude coordinates.

order Order of coordinates in geoms.

group Geom groups.

id Name of entity.

id_numeric Number of entity.

hole Indication of a geom hole.

Source

Statistics Denmark

zipcode_info	<i>Information of Valid Zipcodes</i>
--------------	--------------------------------------

Description

Information of Valid Zipcodes

Usage

zipcode_info

Format

A data frame with 598 rows and 1 column:

zipcode_numbers Valid numbers of zipcodes.

Source

Statistics Denmark

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