Package ‘naijR’

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Type Package

Title Operations to Ease Data Analyses Specific to Nigeria

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Depends R (>= 3.6)

Imports RColorBrewer (>= 1.1.2), magrittr (>= 1.5), mapdata (>= 2.3.0), maps (>= 3.3.0), rgdal (>= 1.4.4), rlang (>= 0.4.0), tools (>= 3.6.3)

Suggests testthat, covr, readxl, knitr, rmarkdown

Description A set of convenience functions as well as geographical/political data about Nigeria, aimed at simplifying work with data and information that are specific to the country.

License GPL-3

LazyData TRUE

Encoding UTF-8

RoxygenNote 7.1.0

VignetteBuilder knitr

NeedsCompilation no

Author Victor Ordu [aut, cre] (<https://orcid.org/0000-0003-3716-0668>)

Maintainer Victor Ordu <victorordu@outlook.com>

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fix_mobile  Fix mobile numbers

Description
Fixes up local mobile phone numbers to a uniform text format.

Usage
fix_mobile(x)

Arguments
x  A character vector of numerical strings.

details
This format is specific to that used in a given location - for now the function is useful only for Nigeria mobile numbers, which come in the format expressed by the regex pattern "^0[7-9][0-1][0-9]{8}$".

Value
The updated vector, usually the column of a data frame.

is_state  Test an Object for States

Description
Test an Object for States

Usage
is_state(x, test = c("all", "selected"), allow.na = TRUE)

Arguments
x  A character vector to be tested.

    test  The type of test to be carried out - on the vector as a whole i.e. all (the default argument) or on the individual elements i.e. selected.

    allow.na  logical. If TRUE, all NAs are ignored in the result.

Value
A logical vector.
**lgas_ng**

*List Local Government Areas*

**Description**

List Local Government Areas

**Usage**

`lgas_ng(ng.state = NA_character_)`

**Arguments**

- `ng.state` Character; State(s) in the Federation of Nigeria. Default is `NA_character_`.

**Value**

If length of `ng.state` == 1L, a character vector containing the names of Local Government Areas; otherwise a named list whose elements are character vectors of the LGAs in each state.

**Examples**

```r
how_many_lgas <- function(state) {
  require(naijR)
  stopifnot(state %in% states())
  cat(sprintf("No. of LGAs in %s State:", state),
       length(lgas_ng(state)),
       fill = TRUE)
}
how_many_lgas("Sokoto")
how_many_lgas("Ekiti")
```

**lgas_nigeria**

*Local Government Areas of Nigeria*

**Description**

A dataset containing the 774 Local Government Areas of Nigeria

**Usage**

`lgas_nigeria`
Format

A dataframe with 774 rows and 2 columns

lga  Local Government Area
state  State of the Federation

map_ng  Map of Nigeria

Description

Maps of the Federal Republic of Nigeria that are based on the basic plotting idiom utilised by maps::map and its variants.

Usage

map_ng(
    region = character(),
    data = NULL,
    x = NULL,
    y = NULL,
    breaks = NULL,
    categories = NULL,
    col = NULL,
    fill = FALSE,
    title = NULL,
    caption = NULL,
    show.neighbours = FALSE,
    show.text = FALSE,
    leg.x = 13L,
    leg.y = 7L,
    leg.title,
    leg.orient = c("vertical", "horizontal"),
    ...
)

Arguments

region  A character vector of a list of Nigerian States to be displayed.
data  An object containing data, principally the variables required to plotted in a map.
x  Numeric object or factor (or coercible to one). See Details.
y  Numeric. See Details
breaks  Numeric. A vector of length >= 1. If a single value i.e. scalar, it denote the expected number of breaks. Internally, the function will attempt to compute appropriate category sizes or fail if out-of bounds. Where length is >= 3L, it is expected to be an arithmetic sequence that represents category bounds as for cut (applicable only to choropleth maps).
categories
The legend for the choropleth-plotted categories. If not defined, internally created labels are used.
col
Colour to be used for the plot.
fill
Logical. Whether to colour the plotted map region(s). When drawing a choropleth map fill == TRUE is implied.
title
Character vector of length 1.
caption
Character vector of length 1.
show.neighbours
Logical; TRUE to display borders of neighbouring countries.
show.text
Logical. Apply labels to the regions of the map.
leg.x
Numeric. Position of the legend.
leg.y
Numeric. Position of the legend.
leg.title
Character. The legend Title
leg.orient
The orientation of the legend i.e. whether horizontal or vertical.
...
Further arguments for function map

Details
The default value for region is to print all States. NULL will print an outline map, i.e. without internal boundaries. data enables the extraction of data for plotting from an object of class data.frame. Columns containing States are identified. The argument also provided context for quasiquotation when providing the x and y arguments. For x and y, when both arguments are supplied, they are taken to be point coordinates and are plotted as such. If only x is supplied, it is presumed that the intention is to make a choropleth map, and thus, numeric vector arguments are converted into factors i.e. number classes. Otherwise factors or any object that can be coerced to a factor should be used. For plain plots, the col argument works the same as with map and variants. For choropleth maps, the colour provided represents a (sequential) colour palette based on brewer.pal. The possible colour options can be checked with getOption("choropleth.colours") and this can also be modified by the user.

Value
An object of class map, invisibly; as a side-effect, results in the drawing of a map of Nigeria.

An object of class maps containing the data used to draw the map and which can be used for additional calls to map or other similar functions (e.g. plot).

Note
When adjusting the default colour chosen for choropleth maps, it is advisable to use one of the sequential palettes. For a list of available palettes, especially for more advanced use, review display.brewer.all
Examples

map_ng() # Draw a map with default settings
map_ng(states("sw"))
map_ng("Kano")

---

states

Display States of the Federal Republic of Nigeria

Description

Display States of the Federal Republic of Nigeria

Usage

states(gpz = NULL, all = TRUE)

Arguments

gpz Geopolitical zone. Default is NULL; optionally "nc", "ne", "nw", "se", "ss" and "sw" (see Details).

all logical; whether to include FCT in the result

Details

gpz A geo-political zone, in the Nigerian context, is a national subdivision that groups contiguous states. Historically, they arise from subnational administrative divisions known as 'regions' that existed at the time of the country's independence. There are 6 zones - North-Central, North-East, North-West, South-East, South-South and South-West.

Value

The States of Nigeria as a whole or by zones, as a character vector

Examples

states() # lists names of all States
states("se") # lists States in South-East zone
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