# Package 'bdl'

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| Version 1.0.5  Description Interface to Local Data Bank ('Bank Danych Lokalnych' - 'bdl') API   | Type Package  |
| Description Interface to Local Data Bank ('Bank Danych Lokalnych' - 'bdl') API  | Title Interface and Tools for 'BDL' API   |
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| Depends R (>= 3.5.0)  Imports methods, magrittr, tibble, jsonlite, httr, dplyr, tidyr, utils, stats, ggplot2, ggpubr, randomcoloR, purrr, sf, tmaptools, tmap, progress  Encoding UTF-8  Suggests knitr, rmarkdown, testthat  VignetteBuilder knitr  NeedsCompilation no  Repository CRAN  RoxygenNote 7.2.2  URL https://statisticspoland.github.io/R_Package_to_API_BDL/  BugReports https://github.com/statisticspoland/R_Package_to_API_BDL/issues  Author Marzena Szpadel [aut],   | <a href="https://api.stat.gov.pl/Home/BdlApi?lang=en">https://api.stat.gov.pl/Home/BdlApi?lang=en</a> with set of useful tools like |
| Imports methods, magrittr, tibble, jsonlite, httr, dplyr, tidyr, utils, stats, ggplot2, ggpubr, randomcoloR, purrr, sf, tmaptools, tmap, progress  Encoding UTF-8  Suggests knitr, rmarkdown, testthat  VignetteBuilder knitr  NeedsCompilation no  Repository CRAN  RoxygenNote 7.2.2  URL https://statisticspoland.github.io/R_Package_to_API_BDL/  BugReports https://github.com/statisticspoland/R_Package_to_API_BDL/issues  Author Marzena Szpadel [aut],   | License GPL-3   |
| utils, stats, ggplot2, ggpubr, randomcoloR, purrr, sf, tmaptools, tmap, progress  Encoding UTF-8  Suggests knitr, rmarkdown, testthat  VignetteBuilder knitr  NeedsCompilation no  Repository CRAN  RoxygenNote 7.2.2  URL https://statisticspoland.github.io/R_Package_to_API_BDL/  BugReports https://github.com/statisticspoland/R_Package_to_API_BDL/issues  Author Marzena Szpadel [aut],  | <b>Depends</b> R (>= $3.5.0$ )  |
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| VignetteBuilder knitr  NeedsCompilation no  Repository CRAN  RoxygenNote 7.2.2  URL https://statisticspoland.github.io/R_Package_to_API_BDL/  BugReports https://github.com/statisticspoland/R_Package_to_API_BDL/issues  Author Marzena Szpadel [aut],   | Encoding UTF-8  |
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| 04  | attribute_info  |

2 attribute\_info

|       | generate_map                  | 4  |
|-------|-------------------------------|----|
|       | get_aggregates                | 5  |
|       | get_attributes                | 6  |
|       | get_data_by_unit              | 7  |
|       | get_data_by_unit_locality     | 8  |
|       | get_data_by_variable          | 9  |
|       | get_data_by_variable_locality | 10 |
|       | get_levels                    | 11 |
|       | get_panel_data                | 12 |
|       | get_request                   | 13 |
|       | get_subjects                  | 14 |
|       | get_units                     | 15 |
|       | get_unit_localities           | 16 |
|       | get_variables                 | 17 |
|       | line_plot                     | 18 |
|       | pie_plot                      | 19 |
|       | scatter_2var_plot             | 20 |
|       | search_subjects               | 21 |
|       | search_units                  | 22 |
|       | search_unit_localities        | 23 |
|       | search_variables              | 24 |
|       | subject_info                  | 25 |
|       | summary.bdl                   | 25 |
|       | unit_info                     | 26 |
|       | unit_locality_info            | 27 |
|       | variable_info                 | 27 |
| Index |                               | 29 |

attribute\_info

Information about attribute

# Description

Retrieve information about attribute.

# Usage

```
attribute_info(attrId, lang = c("pl", "en"), ...)
```

# Arguments

attrId A single attribute id.Use get\_attributes to find more info.

lang A language of returned data, "pl" (default), "en"

... Other arguments passed on to GET. For example a proxy parameters, see details.

bdl 3

#### **Details**

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A named list.

# **Examples**

```
# attribute_info("1")
```

bdl

bdl: Interface and Tools for 'BDL' API

# Description

Interface to Local Data Bank ('Bank Danych Lokalnych' - 'bdl') API https://api.stat.gov.pl/Home/BdlApi?lang=en with set of useful tools like quick plotting and map generating using data from bank.

#### Package options

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#### See Also

Useful links:

- https://statisticspoland.github.io/R\_Package\_to\_API\_BDL/
- Report bugs at https://github.com/statisticspoland/R\_Package\_to\_API\_BDL/issues

4 generate\_map

generate\_map

Generate quick map

## **Description**

Generate given NUTS level map with data from given variable

#### Usage

```
generate_map(
  varId,
  year,
  unitLevel = 2,
  unitParentId = NULL,
  aggregateId = NULL,
  palette = "Blues",
  style = NULL,
  n = 10,
  names = FALSE,
  borderLevel = NULL,
  lang = c("pl", "en"),
  ...
)
```

# Arguments

| varid | A single variable id. | Use search_variables or | get_variables to find vari- |
|-------|-----------------------|-------------------------|-----------------------------|
|       | -1-1- : d d-          |                         |                             |

able id code.

year A single year from 2010-2023 range.

unitLevel A map and data NUTS level - number from 1 to 6. Use get\_levels to find

more info.

unitParentId A 12 character NUTS id code of interested unit. Use search\_units or get\_units

to find unit id code.

aggregateId An aggregate id. Use get\_aggregates for more info.

palette A palette name or a vector of colors. See tmaptools::palette\_explorer() for the

named palettes. Use a "-" as prefix to reverse the palette.

style Method to process the color scale. Options available are "sd", "equal", "pretty",

"quantile", "kmeans", "hclust", "bclust", "fisher", "jenks", and "log10\_pretty".

n Preferred number of classes. Default is 10.

names Logical that determines whether the unit names are shown.

borderLevel Adds contours of units on specified level - number from 1 to 6. Use get\_levels

to find more info.

lang A language of returned data, "pl" (default), "en"

... Other arguments passed on to GET. For example a proxy parameters, see details.

get\_aggregates 5

#### **Details**

Generate quickly map for given NUTS level, using BDL data. Default level is 2.

Maps available for year: 2010-2020

Provide unit parent id to narrow the map for specific regions.

Generating lower (levels 5 and 6) level maps can take some time.

This function requires external map data "bdl.maps" loaded to global environment. You can get data here: Map download. Download data and double-click to load it to environment.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A tmap map.

#### **Examples**

```
# generate_map(varId = "60559", year = "2017")
```

get\_aggregates

Get all aggregates

# Description

Retrieve all aggregates with information.

#### Usage

```
get_aggregates(
   sort = c("id", "-id", "name", "-name"),
   lang = c("pl", "en"),
   ...
)
```

#### **Arguments**

```
A type of sorting, "id" (default), "-id", "name", "-name"

A language of returned data, "pl" (default), "en"

Other arguments passed on to GET. For example a proxy parameters, see details.
```

### **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

get\_attributes

## Value

A dataset as a tibble.

## **Examples**

```
# get_aggregates()
```

get\_attributes

Get all attributes

# Description

Retrieve all attributes with information.

## Usage

```
get_attributes(
  sort = c("id", "-id", "Display", "-Display"),
  lang = c("pl", "en"),
  ...
)
```

#### **Arguments**

```
sort A type of sorting, "id" (default), "-id", "Display", "-Display"

A language of returned data, "pl" (default), "en"

Other arguments passed on to GET. For example a proxy parameters, see details.
```

#### **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

# Value

A dataset as a tibble.

```
# get_attributes()
```

get\_data\_by\_unit 7

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|------|--------|------|-------|---|
| get_ | _uata_ | _Vd_ | _unit | ( |

Get data by unit Id's from BDL API

# Description

Retrieve data for given units from BDL with specified format.

# Usage

```
get_data_by_unit(
  unitId,
  varId,
  year = NULL,
  type = c("code", "label"),
  aggregateId = NULL,
  lang = c("pl", "en"),
  ...
)
```

# Arguments

| unitId      | A single 12 character NUTS id code or vector of multiple unit id codes. If multiple unit codes are used, some columns are not available. Use search_units or get_units to find unit id code. |
|-------------|--|
| varId       | A vector of variable Id's.Use search_variables or get_variables to find variable id code.  |
| year        | A vector of years. If NULL (default) returns data for all available years.   |
| type        | A type of variables returned, "code" (default), "label"  |
| aggregateId | An aggregate id. Use get_aggregates for more info.   |
| lang        | A language of returned data, "pl" (default), "en"  |
|             | Other arguments passed on to GET. For example a proxy parameters, see details.   |

# **Details**

Data to retrieve from The BDL Web Services can be filtered with arguments. To get JSON data from specified directory with custom filters use get\_request directly.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A dataset as a tibble.

#### **Examples**

```
# get_data_by_unit(unitId = "023200000000", varId = "3643")
# get_data_by_unit(unitId = "023200000000", varId = c("3643", "2137", "148190"),
# type = "label")

# Multi variable download
# get_data_by_unit(unitId = c("023200000000", "020800000000"),
# varId = c("3643", "2137", "148190"))
```

get\_data\_by\_unit\_locality

Get data by unit locality Id from BDL API

# **Description**

Retrieve data for a given unit localities from BDL with specified format.

# Usage

```
get_data_by_unit_locality(
  unitId,
  varId,
  year = NULL,
  type = c("code", "label"),
  lang = c("pl", "en"),
  ...
)
```

## **Arguments**

| unitId | A 12 character NUTS unit locality id with 7 characters locality individual id, separated by dash or vector of multiple unit id codes. If multiple unit codes are used, some columns are not available. Use search_unit_localities or get_unit_localities to find unit id code. |
|--------|--|
| varId  | A vector of variable Id's. Use search_variables or get_variables to find variable id code.   |
| year   | A vector of years. If NULL (default) returns data for all available years.   |
| type   | A type of variables returned, "code" (default), "label"  |
| lang   | A language of returned data, "pl" (default), "en"  |
|        | Other arguments passed on to GET. For example a proxy parameters, see details.   |

#### **Details**

Data to retrieve from The BDL Web Services can be filtered with arguments. To get JSON data from specified directory with custom filters use get\_request directly.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

get\_data\_by\_variable 9

## Value

A dataset as a tibble.

# **Examples**

```
get_data_by_variable Get data by variable Id from BDL API
```

## **Description**

Retrieve data for a given variable for multiple units from BDL with specified format.

# Usage

```
get_data_by_variable(
  varId,
  unitParentId = NULL,
  unitLevel = NULL,
  year = NULL,
  aggregateId = NULL,
  lang = c("pl", "en"),
  ...
)
```

# Arguments

| varId        | A single variable Id or vector of multiple variable id's. If multiple id's are used, some columns are not available. Use search_variables or get_variables to find variable id code.  |
|--------------|---|
| unitParentId | A 12 character NUTS id code of parent unit. Use search_units or get_units to find unit id code. If NULL (default) and unitLevel not set up, returns all available units for variable. |
| unitLevel    | A number from 0 to 6, filters the returned unit by its level. If NULL (default) no level filters apply. Use get_levels to find more info.   |
| year         | A vector of years. If NULL (default) returns data for all available years.  |
| aggregateId  | An aggregate id. Use get_aggregates for more info.  |
| lang         | A language of returned data, "pl" (default), "en"   |
|              | Other arguments passed on to GET. For example a proxy parameters, see details.  |

## **Details**

Data to retrieve from The BDL Web Services can be filtered with arguments. To get JSON data from specified directory with custom filters use get\_request directly.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A dataset as a tibble.

#### **Examples**

## **Description**

Retrieve data for a given variables for multiple unit localities from BDL with specified format.

## Usage

```
get_data_by_variable_locality(
  varId,
  unitParentId,
  year = NULL,
  lang = c("pl", "en"),
  ...
)
```

## **Arguments**

| varId        | A single variable id or vector of multiple variable id's. If multiple id's are used, some columns are not available Use search_variables or get_variables to find variable id code.       |
|--------------|---|
| unitParentId | A 12 character NUTS id code of interested unit. Use search_units or get_units to find unit id code. If NULL (default) and unitLevel not set up, returns all available units for variable. |
| year         | A vector of years. If NULL (default) returns data for all available years.  |
| lang         | A language of returned data, "pl" (default), "en"   |
|              | Other arguments passed on to GET. For example a proxy parameters, see details.  |

get\_levels 11

#### **Details**

Data to retrieve from The BDL Web Services can be filtered with arguments. To get JSON data from specified directory with custom filters use get\_request directly.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A dataset as a tibble.

#### **Examples**

```
# get_data_by_variable_locality(varId = "415", unitParentId = "011212006063")
# get_data_by_variable_locality("420", year = "2008", unitParentId = "070000000000")
# Multi variable download
# get_data_by_variable_locality(varId =c("415","430"), unitParentId = "011212006063")
```

get\_levels

Get all levels

## Description

Retrieve all levels with information.

# Usage

```
get_levels(sort = c("id", "-id", "name", "-name"), lang = c("pl", "en"), ...)
```

#### **Arguments**

```
sort A type of sorting, "id" (default), "-id", "name", "-name"

A language of returned data, "pl" (default), "en"

Other arguments passed on to GET. For example a proxy parameters, see details.
```

#### Details

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A dataset as a tibble.

```
# get_levels()
```

12 get\_panel\_data

| get_panel_data | Get panel data by unit and variable Id's from BDL API |
|----------------|---|
|                |   |

# **Description**

Retrieve data for given units from BDL with specified format.

# Usage

```
get_panel_data(unitId, varId, year = NULL, ggplot = FALSE, ...)
```

## **Arguments**

| unitId | A single 12 character NUTS id code or vector of multiple unit id codes. If multiple unit codes are used, some columns are not available. Use search_units or get_units to find unit id code. |
|--------|--|
| varId  | A single Id or vector of variable Id's. Use search_variables or get_variables to find variable id code.  |
| year   | A vector of years. If NULL (default) returns data for all available years.   |
| ggplot | Output in a long format suitable for ggplot2. Allows to plot results directly with ggplot function.  |
|        | Other arguments passed on to GET. For example a proxy parameters, see details.   |

#### **Details**

Data to retrieve from The BDL Web Services can be filtered with arguments. To get JSON data from specified directory with custom filters use get\_request directly.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A dataset as a tibble.

```
# get_panel_data(unitId = "030210101000", varId = "60270")
# get_panel_data(unitId = "030210101000", varId = c("60270", "461668"))
# get_panel_data(unitId = c("030210101000", "030210105000", "030210106000"),
# varId = c("60270", "461668"), year = c(2013:2016))
# get_panel_data(unitId = c("030210101000", "030210105000", "030210106000"),
# varId = c("60270", "461668"), ggplot = TRUE)
```

get\_request 13

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|------|---------|--|
| get_ | request |  |

Get JSON response from BDL API

## Description

Retrieve data from BDL API in JSON format.

### Usage

```
get_request(dir, id, filters = NULL, ...)
```

# Arguments

| dir     | A directory of the dataset.  |
|---------|--|
| id      | A name for the dataset of interested.  |
| filters | A named list of filters. Names of list objects are bdl filter names and values are vectors with specified filter values. If NULL (default) the whole dataset is returned. See API documentation for more on filters and limitations per query. |
|         | Other arguments passed on to GET. For example a proxy parameters, see details.   |

#### **Details**

Data to retrieve from The BDL Web Services can be specified with filters. If no specific filters required, it's recommended to use data query like get\_data\_by\_unit\_locality, than to use get\_request directly.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A JSON raw data.

```
# get_request(dir = "data/By-Variable", id = "3643")
# get_request(dir = "data/By-Unit", id = "023200000000", filters = list(year = c("2000","2010"),
# var-Id" = c("2137","148190")))
# get_request(dir = "data/By-Variable", id = "3643", filters = list(year = c("2000","2010"),
# unit-Level" = 2, lang = "en"))
```

14 get\_subjects

get\_subjects

Get subject id codes.

## **Description**

Retrieve all subjects id's or sub-subjects.

# Usage

```
get_subjects(
  parentId = "",
  sort = c("id", "-id", "name", "-name"),
  lang = c("pl", "en"),
   ...
)
```

# Arguments

| parentId | A parent subject id code. If not specified returns all top level subjects. Use search_subjects to find subject codes. |  |
|----------|---|--|
| sort     | A type of sorting, "id" (default), "-id", "name", "-name"   |  |
| lang     | A language of returned data, "pl" (default), "en"   |  |
|          | Other arguments passed on to GET. For example a proxy parameters, see details   |  |

## **Details**

To get all top level subjects skip the parentId parameter or list sub-subjects for given parent subject.

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

#### Value

A dataset as a tibble.

```
# get_subjects()
# get_subjects("K3")
# get_subjects("G7")
```

get\_units 15

get\_units

Get unit NUTS codes.

# Description

Retrieve all unit codes or sub to given unit,

# Usage

```
get_units(
  parentId = "",
  level = NULL,
  sort = c("id", "-id", "name", "-name"),
  lang = c("pl", "en"),
  ...
)
```

# Arguments

| parentId | A 12 character NUTS id code of parent unit. Use search_units to find unit id code.  |
|----------|---|
| level    | A number from 0 to 6, filters the returned unit by its level. If NULL (default) no level filters apply. Use get_levels to find more info. |
| sort     | A type of sorting, "id" (default), "-id", "name", "-name"   |
| lang     | A language of returned data, "pl" (default), "en"   |
|          | Other arguments passed on to GET. For example a proxy parameters, see details.  |

## **Details**

To get all units skip the parentId parameter. Warning! Downloading all unit can take around 1 minute.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A dataset as a tibble.

```
# get_units(level = 2)
# get_units("010000000000")
```

get\_unit\_localities

```
get_unit_localities Get unit locality codes.
```

# Description

Retrieve unit locality codes.

## Usage

```
get_unit_localities(
  parentId,
  sort = c("id", "-id", "name", "-name"),
  lang = c("pl", "en"),
  ...
)
```

# Arguments

| parentId | A 12 character NUTS id code of parent unit. Use search_units to find unit id code. |
|----------|--|
| sort     | A type of sorting, "id" (default), "-id", "name", "-name"                          |
| lang     | A language of returned data, "pl" (default), "en"                                  |
|          | Other arguments passed on to GET. For example a proxy parameters, see details.     |

## **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

# Value

A dataset as a tibble.

```
# get_unit_localities("030210106062")
```

get\_variables 17

| variable id codes. |
|--------------------|
|--------------------|

# Description

Retrieve variables for given subjectId.

## Usage

```
get_variables(
  subjectId,
  level = NULL,
  year = NULL,
  sort = c("id", "-id", "subjectId", "-subjectId"),
  lang = c("pl", "en"),
  ...
)
```

# Arguments

| subjectId | A subject id code. If not specified returns all top level subjects. Use search_subjects or get_subjects to get subject id.                |
|-----------|---|
| level     | A number from 0 to 6, filters the returned unit by its level. If NULL (default) no level filters apply. Use get_levels to find more info. |
| year      | A vector of years. If NULL (default) returns data for all available years.  |
| sort      | A type of sorting, "id" (default), "-id", "subjectId", "-subjectId"   |
| lang      | A language of returned data, "pl" (default), "en"   |
|           | Other arguments passed on to GET. For example a proxy parameters, see details.  |

# **Details**

Variables for specified subject optionally filtered by level and year.

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

## Value

A dataset as a tibble.

```
# get_variables("P2425")
```

line\_plot

line\_plot

Generate quick line plot

# Description

Generate line plot for one unit/multiple variables or variable/multiple units

# Usage

```
line_plot(
  data_type = c("unit", "unit.locality", "variable", "variable.locality"),
  unitId = NULL,
  varId = NULL,
  year = NULL,
  aggregateId = NULL,
  lang = NULL,
  unitParentId = NULL,
  unitLevel = NULL,
  ...
)
```

# Arguments

| data_type    | A type of data used for generating plot, "unit" (default), "unit.locality", "variable", "variable.locality"  |
|--------------|--|
| unitId       | A 12 character NUTS unit id or locality 12 character id with 7 characters locality individual id, separated by dash.   |
| varId        | A vector of variable Id's (data_type equal "unit" or "unit.locality) or single variable (data_type equal "variable" or "variable.locality"). Use search_variables or get_variables to find variable id code. |
| year         | A vector of years. If NULL (default) returns data for all available years.   |
| aggregateId  | An aggregate id. Use get_aggregates for more info.   |
| lang         | A language of returned data, "pl" (default), "en"  |
| unitParentId | A 12 character NUTS id code of interested unit. (Used only with data_type equal "variable" or "variable.locality") Use search_units or get_units to find unit id code.                                       |
| unitLevel    | A number from 0 to 6, filters the returned unit by its level. (Used only with data_type equal "variable") If NULL (default) no level filters apply. Use get_levels to find more info.                        |
|              | Other arguments passed on to GET. For example a proxy parameters, see details.   |

# **Details**

Generate quickly 'ggplot2' plot, using BDL data.

Plot multiple variable values for one unit or one variable value for multiple units.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

pie\_plot

# Value

```
A ggplot2 plot.
```

# **Examples**

```
# line_plot(data_type = "unit", unitId = "00000000000", varId = c("415","420"))
```

pie\_plot

Generate quick pie plot

# Description

Generate pie plot for variable/multiple units

## Usage

```
pie_plot(
  data_type = c("variable", "variable.locality"),
  varId,
  year,
  unitParentId = NULL,
  unitLevel = NULL,
  aggregateId = NULL,
  label = T,
  lang = c("pl", "en"),
  ...
)
```

# Arguments

| data_type    | A type of data used for generating plot, "variable" (default), "variable", "variable.locality"  |  |
|--------------|---|--|
| varId        | A variable Id. Use search_variables or get_variables to find variable id code.  |  |
| year         | A single year. If NULL (default) returns data for all available years.  |  |
| unitParentId | A 12 character NUTS id code of interested unit. Use search_units or get_units to find unit id code.   |  |
| unitLevel    | A number from 0 to 6, filters the returned unit by its level. (Used only with data_type equal "variable") If NULL (default) no level filters apply. Use get_levels to find more info. |  |
| aggregateId  | An aggregate id. Use get_aggregates for more info.  |  |
| label        | Logical; if TRUE (default) adds labels.   |  |
| lang         | A language of returned data, "pl" (default), "en"   |  |
|              | Other arguments passed on to GET. For example a proxy parameters, see details.  |  |

20 scatter\_2var\_plot

#### **Details**

Generate quickly 'ggplot2' plot, using BDL data.

Pie plot one variable value for multiple units on single year.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A ggplot2 plot.

### **Examples**

```
# pie_plot(data_type ="variable" ,"1", "2018",unitParentId="042214300000", unitLevel = "6")
```

scatter\_2var\_plot

Generate quick scatter correlation plot

## Description

Generate scatter correlation plot for 2 variables

#### Usage

```
scatter_2var_plot(
  data_type = c("variable", "variable.locality"),
  varId,
  year = NULL,
  unitParentId = NULL,
  unitLevel = NULL,
  aggregateId = NULL,
  lang = c("pl", "en"),
  ...
)
```

#### **Arguments**

data\_type A type of data used for generating plot, "variable"(default), "variable.locality"

A vector of 2 variable Id's. Use search\_variables or get\_variables to find variable id code.

year A vector of years. If NULL (default) returns data for all available years.

unitParentId A 12 character NUTS id code of interested unit. (Used only with data\_type

equal "variable" or "variable.locality")Use search\_units or get\_units to find

unit id code.

unitLevel A number from 0 to 6, filters the returned unit by its level. (Used only with

data\_type equal "variable") If NULL (default) no level filters apply. Use get\_levels

to find more info.

search\_subjects 21

```
aggregateId An aggregate id. Use get_aggregates for more info.

lang A language of returned data, "pl" (default), "en"

Other arguments passed on to GET. For example a proxy parameters, see details.
```

#### **Details**

Generate quickly 'ggplot2' scatter correlation plot, using BDL data.

Scatter plot 2 variables for given units with regression line, confidence interval and correlation coefficient.

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A ggplot2 plot.

#### **Examples**

```
# scatter_2var_plot(data_type = "variable" ,c("415", "60559"), unitLevel = "2")
```

search\_subjects

Search for subject codes

## **Description**

Search for given phrase in subject names

#### Usage

```
search_subjects(
  name,
  sort = c("id", "-id", "name", "-name"),
  lang = c("pl", "en"),
   ...
)
```

#### Arguments

```
name A phrase to search.

sort A type of sorting, "id" (default), "-id", "name", "-name"

lang A language of returned data, "pl" (default), "en"

Other arguments passed on to GET. For example a proxy parameters, see details.
```

#### **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

22 search\_units

## Value

A dataset as a tibble.

# Examples

```
# search_subjects("samochody")
# search_subjects("car", lang = "en")
```

search\_units

Search for units

# Description

Search for a given phrase in unit names.

# Usage

```
search_units(
  name,
  level = NULL,
  year = NULL,
  kind = NULL,
  sort = c("id", "-id", "name", "-name"),
  lang = c("pl", "en"),
  ...
)
```

# Arguments

| name  | A phrase to search.   |  |
|-------|---|--|
| level | A number from 0 to 6, filters the returned unit by its level. If NULL (default) no level filters apply. Use get_levels to find more info. |  |
| year  | A vector of years. If NULL (default) returns data for all available years.  |  |
| kind  | A type of unit. More info at: https://bdl.stat.gov.pl/BDL/metadane/teryt/rodzaj   |  |
| sort  | A type of sorting, "id" (default), "-id", "name", "-name"   |  |
| lang  | A language of returned data, "pl" (default), "en"   |  |
|       | Other arguments passed on to GET. For example a proxy parameters, see details.  |  |

# **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

search\_unit\_localities 23

## Value

A dataset as a tibble.

#### **Examples**

```
# search_units("wro")
# search_units("pol", type = "5")
```

search\_unit\_localities

Search for unit localities

#### **Description**

Search for a given phrase in unit locality names.

# Usage

```
search_unit_localities(
  name,
  year = NULL,
  sort = c("id", "-id", "name", "-name"),
  lang = c("pl", "en"),
  ...
)
```

# Arguments

```
name A phrase to search.

year A vector of years. If NULL (default) returns data for all available years.

sort A type of sorting, "id" (default), "-id", "name", "-name"

A language of returned data, "pl" (default), "en"

Other arguments passed on to GET. For example a proxy parameters, see details.
```

#### **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

#### Value

A dataset as a tibble.

```
# search_unit_localities("wro")
```

24 search\_variables

search\_variables

Search for variable codes

# Description

Search for given phrase in variable names

# Usage

```
search_variables(
  name,
  subjectId = NULL,
  level = NULL,
  year = NULL,
  sort = c("id", "-id", "subjectId", "-subjectId"),
  lang = c("pl", "en"),
  ...
)
```

## **Arguments**

| name      | A phrase to search.   |  |
|-----------|---|--|
| subjectId | A subject id code. If not specified returns all top level subjects. Use search_subjects or get_subjects to get subject id.                |  |
| level     | A number from 0 to 6, filters the returned unit by its level. If NULL (default) no level filters apply. Use get_levels to find more info. |  |
| year      | A vector of years. If NULL (default) returns data for all available years.  |  |
| sort      | A type of sorting, "id" (default), "-id", "name", "-name"   |  |
| lang      | A language of returned data, "pl" (default), "en"   |  |
|           | Other arguments passed on to GET. For example a proxy parameters, see details.  |  |

## **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

## Value

A dataset as a tibble.

```
# search_variables("samochody")
# search_variables("cars", lang = "en")
```

subject\_info 25

# Description

Retrieve information about subject

## Usage

```
subject_info(subjectId, lang = c("pl", "en"), ...)
```

#### **Arguments**

A subject id code. If not specified returns all top level subjects. Use search\_subjects or get\_subjects to find subject codes.

A language of returned data, "pl" (default), "en"

Other arguments passed on to GET. For example a proxy parameters, see details.

## **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

# Value

A named list.

# **Examples**

```
# subject_info("G7")
```

| summary.bdl | Summarize bdl data frame |  |
|-------------|--------------------------|--|
| summary.bd1 | Summarize vai aata frame |  |

# **Description**

Prints brief summary with basic statistical functions like mean, standard deviation, variance, min and max for bdl data frame.

### Usage

```
## S3 method for class 'bdl'
summary(object, ...)
```

26 unit\_info

# **Arguments**

object bdl data frame to summarise
... other arguments ignored (for compatibility with generic)

## **Examples**

```
# df <- get_data_by_variable(varId = "3643")
# summary(df)</pre>
```

unit\_info

Information about unit

# **Description**

Retrieve information about unit

# Usage

```
unit_info(unitId, lang = c("pl", "en"), ...)
```

## **Arguments**

unitId A 12 character NUTS id code of interested unit. Use search\_units or get\_units to find unit id code.

lang A language of returned data, "pl" (default), "en"

... Other arguments passed on to GET. For example a proxy parameters, see details.

# **Details**

```
To use a proxy to connect, a use_proxy can be passed to GET. For example get_request(id, filters, config = httr::use_proxy(url, port, username, password)).
```

#### Value

A named list.

```
# unit_info("030210106062")
```

unit\_locality\_info 27

| unit    | _locality  | info   |
|---------|------------|--------|
| unit c_ | _IUCAIILY. | _11110 |

Information about unit locality

#### **Description**

Retrieve information about unit locality

# Usage

```
unit_locality_info(unitId, lang = c("pl", "en"), ...)
```

# Arguments

unitId A 12 character NUTS id with 7 characters locality individual id, separated by

dash. Use search\_unit\_localities or get\_unit\_localities to find unit id

code.

lang A language of returned data, "pl" (default), "en"

... Other arguments passed on to GET. For example a proxy parameters, see details.

#### **Details**

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

#### Value

A named list.

# Examples

```
# unit_locality_info("030210106062-0189782")
```

variable\_info

Information about variable

# **Description**

Retrieve information about variable.

# Usage

```
variable_info(varId, lang = c("pl", "en"), ...)
```

28 variable\_info

# Arguments

| varId | A vector of variable Id's. Use search_variables or get_variables to find variable id code. |
|-------|--|
| lang  | A language of returned data, "pl" (default), "en"  |
|       | Other arguments passed on to GET. For example a proxy parameters, see details.             |

## **Details**

To use a proxy to connect, a use\_proxy can be passed to GET. For example get\_request(id, filters, config = httr::use\_proxy(url, port, username, password)).

# Value

A named list.

```
# variable_info("420")
```

# **Index**

| * database                                   | search_unit_localities, 23                   |  |
|--|--|--|
| <pre>get_data_by_unit, 7</pre>               | search_units, 22                             |  |
| <pre>get_data_by_unit_locality, 8</pre>      | unit_info, 26                                |  |
| get_data_by_variable, 9                      | unit_locality_info, 27                       |  |
| <pre>get_data_by_variable_locality, 10</pre> | * utilities                                  |  |
| get_panel_data, 12                           | get_aggregates, 5                            |  |
| get_request, 13                              | get_attributes, 6                            |  |
| * info                                       | get_data_by_unit,7                           |  |
| attribute_info, 2                            | <pre>get_data_by_unit_locality, 8</pre>      |  |
| subject_info, 25                             | <pre>get_data_by_variable, 9</pre>           |  |
| unit_info, 26                                | <pre>get_data_by_variable_locality, 10</pre> |  |
| unit_locality_info, 27                       | <pre>get_levels, 11</pre>                    |  |
| variable_info, 27                            | get_panel_data, 12                           |  |
| * levels                                     | get_request, 13                              |  |
| get_aggregates, 5                            | get_subjects, 14                             |  |
| get_attributes, 6                            | <pre>get_unit_localities, 16</pre>           |  |
| get_levels, 11                               | get_units, 15                                |  |
| * localities                                 | get_variables, 17                            |  |
| <pre>get_unit_localities, 16</pre>           | search_subjects, 21                          |  |
| search_unit_localities, 23                   | search_unit_localities, 23                   |  |
| unit_locality_info, 27                       | search_units, 22                             |  |
| * seach                                      | search_variables, 24                         |  |
| search_subjects, 21                          | * variables                                  |  |
| * search                                     | attribute_info, 2                            |  |
| <pre>get_subjects, 14</pre>                  | get_variables, 17                            |  |
| <pre>get_unit_localities, 16</pre>           | variable_info,27                             |  |
| get_units, 15                                | attailents in Co. O                          |  |
| get_variables, 17                            | attribute_info,2                             |  |
| search_unit_localities, 23                   | bdl. 3                                       |  |
| search_units, 22                             | bdl-package (bdl), 3                         |  |
| search_variables, 24                         |  |  |
| * subjects                                   | generate_map, 4                              |  |
| get_subjects, 14                             | GET, 2–28                                    |  |
| search_subjects, 21                          | get_aggregates, 4, 5, 7, 9, 18, 19, 21       |  |
| search_variables, 24                         | get_attributes, 2, 6                         |  |
| <pre>subject_info, 25</pre>                  | get_data_by_unit, 7                          |  |
| * units                                      | <pre>get_data_by_unit_locality, 8, 13</pre>  |  |
| <pre>get_unit_localities, 16</pre>           | get_data_by_variable, 9                      |  |
| get_units, 15                                | <pre>get_data_by_variable_locality, 10</pre> |  |
|  |  |  |

30 INDEX

```
get_levels, 4, 9, 11, 15, 17-20, 22, 24
get_panel_data, 12
get_request, 7, 8, 10-13, 13
get_subjects, 14, 17, 24, 25
get_unit_localities, 8, 16, 27
get_units, 4, 7, 9, 10, 12, 15, 18-20, 26
\mathtt{get\_variables}, 4, 7-10, 12, 17, 18-20, 28
line_plot, 18
pie_plot, 19
scatter_2var_plot, 20
search_subjects, 14, 17, 21, 24, 25
search_unit_localities, 8, 23, 27
search_units, 4, 7, 9, 10, 12, 15, 16, 18-20,
         22, 26
search_variables, 4, 7-10, 12, 18-20, 24, 28
subject_info, 25
summary.bdl, 25
unit_info, 26
unit_locality_info, 27
use_proxy, 3, 5–8, 10–18, 20–28
variable_info, 27
```