

Package: NSO1212 (via r-universe)

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Title National Statistical Office of Mongolia's Open Data API Handler

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Description The National Statistical Office of Mongolia (NSO) is the national statistical service and an organization of the Mongolian government. NSO distributes data sets freely available for open access via its API <http://opendata.1212.mn/en/doc>. NSO1212 is an R package that contains functions for effortlessly accessing such data through NSO's API. Importing data with the package has an advantage in filtering and tidying data for further processing and analysis. The functions are compatible with the API v2.0 and get data sets and detailed information from the API.

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URL <https://github.com/makhgal-ganbold/NSO1212>

BugReports <https://github.com/makhgal-ganbold/NSO1212/issues>

Depends R (>= 3.5.0)

Imports httr, jsonlite

License GPL-3

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all_tables	<i>Brief Information about All Database Tables</i>
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Description

Brief information about all available database tables on the open-data API, which is supported by the National Statistical Office of Mongolia (NSO)

Usage

```
all_tables(try = FALSE, timeout = Inf, na.rm = FALSE)
```

Arguments

try	logical: Should the body of the function be wrapped by the function try ? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. You can not set it to less than 1 ms or 0.001 s.
na.rm	logical: If TRUE, it removes empty rows in a data frame that is the result of this function.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, it needs error handling. If try is TRUE, you must write code with error handling, as shown in the example.

Value

If the function is executed without error, it returns a data frame with brief information about all available database tables. Otherwise, it returns a class "try-error" object containing the error message. The data frame has the following structure:

- rownum** Row number
- list_id** Sector number
- tbl_id** Table identification number
- tbl_nm** Table name in Mongolian

tbl_eng_nm Table name in English
unit_id Unit code
cd_nm Unit name in Mongolian
cd_eng_nm Unit name in English
strt_prd Start date
end_prd Finish date
prd_se Time frequency
lst_chn_de Last update date

References

<http://opendata.1212.mn/en/doc/Api/GET-api-Items>

See Also

[get_table](#), [get_table_info](#), [get_sector_info](#)

Examples

```
all.tables <- all_tables(try = TRUE, timeout = 4)
if (!inherits(all.tables, "try-error")) {
  str(all.tables)
}
```

get_sector_info

Detailed Information about All Main Sectors

Description

Detailed information about all main sectors is the primary classification of data on the open-data API supported by the National Statistical Office of Mongolia (NSO)

Usage

```
get_sector_info(try = FALSE, timeout = Inf)
```

Arguments

try	logical: Should the body of the function be wrapped by the function try ? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. You can not set it to less than 1 ms or 0.001 s.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, it needs error handling. If try is TRUE, you must write code with error handling, as shown in the example.

Value

If the function is executed without error, it returns a data frame that includes sector information. Otherwise, it returns a class "try-error" object containing the error message. The data frame has the following structure:

rownum Row number
list_id Sector identification number
up_list_id Sub sector identification number
list_nm Sector name in Mongolian
list_eng_nm Sector name in English
isExist Whether or exist sub-sectors

References

<http://opendata.1212.mn/en/doc/Api/GET-api-Sector>

See Also

[all_tables](#), [get_table](#), [get_table_info](#), [get_subsector_info](#)

Examples

```
sector_info <- get_sector_info(try = TRUE, timeout = 4)
if (!inherits(sector_info, "try-error")) {
  print(sector_info)
}
```

get_subsector_info	<i>Detailed Information about a Sub-Sector</i>
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Description

Detailed information about a sub-sector, which is the minor classification of data, on the open-data API supported by the National Statistical Office of Mongolia

Usage

```
get_subsector_info(subid, try = FALSE, timeout = Inf)
```

Arguments

subid	character string, Sub-sector identification number
try	logical: Should the body of the function be wrapped by the function try ? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. You can not set it to less than 1 ms or 0.001 s.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, it needs error handling. If try is TRUE, you must write code with error handling, as shown in the example.

Value

If the function is executed without error, it returns a data frame that includes sub-sector information. If it fails, it returns an object of class "try-error" containing the error message. The data frame has the following structure:

rownum Row number

list_id Sector identification number

up_list_id Sub sector identification number

list_nm Sector name in Mongolian

list_eng_nm Sector name in English

isExist Whether or exist sub-sectors

References

http://opendata.1212.mn/en/doc/Api/GET-api-Sector_subid

See Also

[all_tables](#), [get_table](#), [get_table_info](#), [get_sector_info](#)

Examples

```
subsector_info <- get_subsector_info("976_L05", try = TRUE, timeout = 4)
if (!inherits(subsector_info, "try-error")) {
  print(subsector_info)
}
```

get_table

Download a Database Table

Description

It downloads a database table containing statistical data from the open-data API supported by the National Statistical Office of Mongolia (NSO).

Usage

```
get_table(
  tbl_id,
  PERIOD = NULL,
  CODE = NULL,
  CODE1 = NULL,
  CODE2 = NULL,
  try = FALSE,
  timeout = Inf
)

make_period(start, end = NULL, period = "Y")
```

Arguments

tbl_id	character string, Table identification number
PERIOD	character vector, Time
CODE, CODE1, CODE2	character vector, Classification code (age, gender etc)
try	logical: Should the main body of the function be wrapped by the function try ? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. You can not set it to less than 1 ms or 0.001 s.
start, end	The starting and stopping moments of a period have the following formats: "YYYY", "YYYYMM", "YYYYMMDD", "YYYYQQ". Notations YYYY, MM, DD, and QQ, respectively, indicate a date's year, month, day, and quarter. If necessary, write it as a number that has a leading zero.
period	One of the following letters: "Y" (default), "M", "D", and "Q" respectively represent periods yearly, monthly, daily, and quarterly. There is another value (F) that means no specific time period; you cannot use it for this function.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, it needs error handling. If try is TRUE, you must write code with error handling, as shown in the example.

Value

A data frame if the function is executed without error, but an object of class "try-error" containing the error message if it fails. The data frame has the following structure:

TBL_ID Row number
Period Time
CODE Classification code
SCR_MN Classification name in Mongolian
SCR_ENG Classification name in English

CODE1 Classification code

SCR_MN1 Classification name in Mongolian

SCR_ENG1 Classification name in English

CODE2 Classification code

SCR_MN2 Classification name in Mongolian

SCR_ENG2 Classification name in English

DTVAL_CO Datum

A character vector that contains an API compatible period

Functions

- `make_period()`: It is used to prepare values for the argument `PERIOD` of the function `get_table`.

References

<http://opendata.1212.mn/en/doc/Api/POST-api-Data>

See Also

[all_tables](#), [get_table_info](#), [get_sector_info](#)

Examples

```
nso.data <- get_table(
  tbl_id = "DT_NSO_2400_015V2",
  PERIOD = make_period(start = "201711", end = "202103", period = "M"),
  CODE = c("10", "11"),
  CODE1 = "11",
  try = TRUE, # to prevent a server error
  timeout = 4
)
if (!inherits(nso.data, "try-error")) {
  print(nso.data)
}
```

get_table_info

Detailed Information about a Database Table and Its Classification

Description

Detailed information about a database table and its classification on the open-data API supported by the National Statistical Office of Mongolia (NSO)

Usage

```
get_table_info(tbl_id, simplify = FALSE, try = FALSE, timeout = Inf)
```

Arguments

tbl_id	character string, Table identification number
simplify	logical: Should the result be simplified to a vector and a data frame?
try	logical: Should the body of the function be wrapped by the function <code>try</code> ? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. You can not set it to less than 1 ms or 0.001 s.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, it needs error handling. If `try` is TRUE, you must write code with error handling, as shown in the example.

Value

If the function is executed without error, it returns a list that includes detailed information about the database table and its classification. If it fails, it returns an object of class "try-error" containing the error message. The list has the following structure:

tbl_id Table identification number
unit_id Unit identification number
unit_nm Unit name in Mongolia
unit_eng_nm Unit name in English
obj Table classification:
 obj_var_id Variable identification
 var_ord_sn Variable identification number
 field Field name
 scr_mn Variable name in Mongolian
 scr_eng Variable identification
 itm Variable classification and code:
 itm_id Classification number
 up_itm_id Sub-classification
 scr_mn Classification name in Mongolian
 scr_eng Classification name in English

if `simplify` is TRUE, an user-friendly result is returned.

References

<http://opendata.1212.mn/en/doc/Api/GET-api-Itms-id>

See Also

[all_tables](#), [get_table](#), [get_sector_info](#)

Examples

```
# tree shaped result
table_info <- get_table_info("DT_NSO_2400_015V2", try = TRUE,, timeout = 4)
if (!inherits(table_info, "try-error")) {
  str(table_info)
}
# tabular result
table_info_simplified <- get_table_info(
  "DT_NSO_2400_015V2", simplify = TRUE, try = TRUE, timeout = 4)
if (!inherits(table_info_simplified, "try-error")) {
  str(table_info_simplified)
}
```

NSO1212

National Statistical Office of Mongolia's Open Data API Handler

Description

The National Statistical Office of Mongolia (NSO) is the national statistical service and an organization of the Mongolian government. NSO provides open access to official data via its open-data API. The package NSO1212 has functions for accessing the API service. The functions are compatible with API v2.0 and get data sets or their detailed information from the API.

Author(s)

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References

<http://opendata.1212.mn/en/doc>

See Also

Useful links:

- <https://github.com/makhgal-ganbold/NSO1212>
- Report bugs at <https://github.com/makhgal-ganbold/NSO1212/issues>

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