

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 National Statistical Office of Mongolia (NSO) is the national statistical service and an organization of Mongolian government. NSO provides open access to official data via its API <<http://opendata.1212.mn/en/doc>>. The package NSO1212 has functions for accessing the API service. The functions are compatible with the API v2.0 and get data sets and its detailed informations from the API.

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URL <https://github.com/galaamn/NSO1212>

BugReports <https://github.com/galaamn/NSO1212/issues>

Depends R (>= 3.5.0)

Imports httr, jsonlite

License GPL-3

Encoding UTF-8

ByteCompile true

NeedsCompilation no

RoxygenNote 7.1.1

Repository <https://makhgal-ganbold.r-universe.dev>

RemoteUrl <https://github.com/makhgal-ganbold/nso1212>

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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 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 <code>try</code> ? See details.
timeout	positive numeric or <code>Inf</code> : The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.
na.rm	logical: If TRUE, it removes empty rows in a data frame which is result of this function.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is TRUE, you have to write code with error handling as shown in the example.

Value

A data frame which has brief information of all available database tables 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 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-Itms>

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, which are major classification of data, on the open-data API which is supported by 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 <code>try</code> ? See details.
timeout	positive numeric or Inf: The number of seconds to wait for a response from the NSO server. Can not be less than 1 ms or 0.001 s.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is TRUE, you have to write code with error handling as shown in the example.

Value

A data frame which has sector information 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 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 *Detailed Information about a Sub-Sector*

Description

Detailed information about a sub-sector, which is minor classification of data, on the open-data API which is supported by 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. Can not be less than 1 ms or 0.001 s.

Details

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

Value

A data frame which has sub-sector information 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 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, which contains statistical data, from the open-data API which is supported by 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. Can not be less than 1 ms or 0.001 s.
start, end	Starting and stopping moments of period which has following formats: "YYYY", "YYYYMM", "YYYYMMDD", "YYYYQQ". Notations YYYY, MM, DD and QQ, respectively, indicate year, month, day and quarter of a date. These are written as a number has a leading zero, if necessary.
period	One of single characters "Y" (default), "M", "D" and "Q" which represent periods yearly, monthly, daily and quarterly respectively. There is one more value "F" which is supported by the API. However it can not be used for such function due to there is not a fixed rule for this type of periods.

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if try is TRUE, you have to 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 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 which 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 which is supported by National Statistical Office of Mongolia (NSO)

Usage

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

Arguments

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

Details

The NSO server returns "HTTP error 500" frequently. Due to the server error, error handling is supported. if `try` is TRUE, you have to write code with error handling as shown in the example.

Value

A list which contains information about database table and its classification if the function is executed without error, but an object of class "try-error" containing the error message, if it fails. The list has 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_NS0_2400_015V2", try = TRUE,, timeout = 4)
if (!inherits(table_info, "try-error")) {
  str(table_info)
}
# tabular result
table_info_simplified <- get_table_info(
  "DT_NS0_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

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

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References

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

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