Package ‘ipanema’

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Type Package

Title Read Data from 'LimeSurvey'

Version 1.1.0

Description Read data from 'LimeSurvey'
   (<https://www.limesurvey.org/>)
   in a comfortable way.
   Heavily inspired by 'limer'
   (<https://github.com/cloudyr/limer/>),
   which lacked a few comfort features for me.

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URL https://gitlab.com/REDS1736/ipanema

Encoding UTF-8

Imports base64enc, DBI, dplyr, httr, jsonlite, magrittr, RMySQL

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Depends R (>= 2.10)

NeedsCompilation no

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**base64_to_df**

Description

Convert a base64 representation of a CSV table into a `data.frame` object.

Usage

```r
base64_to_df(x)
```

Arguments

- `x`: The base64-encoded CSV string

Value

A `data.frame` object containing the data from `x`.

**connect_to_limesurvey**

Description

Connect to `LimeSurvey` instance via the RPC and direct MySQL connection. Store the RPC session key in `options('limesurvey_session_key')`. Store the MySQL connection object in `options('limesurvey_mysql_connection')`. Store the RPC URL in `options('limesurvey_api_url')`.

Usage

```r
connect_to_limesurvey(
  api_url,
  limesurvey_username,
  limesurvey_password,
  mysql_host,
  mysql_port,
  mysql_dbname,
  mysql_username,
  mysql_password
)
```
fix_column_data_types

Arguments

- **api_url**: URL to the ‘LimeSurvey’ RPC, e.g. 'http://localhost/index.php/admin/remotecontrol'
- **limesurvey_username**: Username for the ‘LimeSurvey’ API
- **limesurvey_password**: Password for the ‘LimeSurvey’ API
- **mysql_host**: Hostname of the MySQL server used by ‘LimeSurvey’
- **mysql_port**: Port on which the MySQL server listens for connections
- **mysql_dbname**: Name of the database on the MySQL server which is used by ‘LimeSurvey’
- **mysql_username**: Username for the MySQL server
- **mysql_password**: Password for the MySQL server

Value

No return value, called for side effects

Examples

```r
# This example assumes a locally hosted 'LimeSurvey' instance using a locally
# hosted MySQL server
## Not run:
connect_to_limesurvey(
  api_url = 'https://localhost/index.php/admin/remotecontrol',
  limesurvey_username = 'admin',
  limesurvey_password = '1234admin',
  mysql_host = '127.0.0.1',
  mysql_port = 3306,
  mysql_dbname = 'limesurvey',
  mysql_username = 'lime',
  mysql_password = '1234lime'
)
## End(Not run)
```

Description

Freshly exported data has all item-data columns as type "character". This function converts these columns to ideal types (e.g. integer). Currently simply converts all multiple-choice columns to integer. Future task: Add conversion to other data types as needed.

Usage

`fix_column_data_types(df_in)`
get_answer_options

Arguments

`df_in` The `data.frame` object to fix.

Value

A `data.frame` object containing the data from `df_in` but with fixed column data types.

Description

Get the answer options to a question with pre-defined answer options (e.g. a multiple choice question).

Usage

`get_answer_options(question_code)`

Arguments

`question_code` Code by which to identify the question. Follows a dot-based naming scheme: `<group title>..<subquestion title>`.

Value

`data.frame` object with the columns `code` and `answer` in which each row represents one answer option where `code` is the encoded value (as found in datasets exported by `get_survey_data()` and `answer` is the answer option text as seen by survey users).

Examples

```r
# This example assumes a locally hosted `LimeSurvey` instance using a locally hosted MySQL server.
# On this `LimeSurvey` instance, there is a survey with the ID 123456.
# In this survey, a multiple-choice question identified by the code "bdi.01" is used.
# For this question, this example retrieves the possible answer options.
## Not run:
connect_to_limesurvey(
  api_url = 'https://localhost/index.php/admin/remotecontrol',
  limesurvey_username = 'admin',
  limesurvey_password = '1234admin',
  mysql_host = '127.0.0.1',
  mysql_port = 3306,
  mysql_dbname = 'limesurvey',
  mysql_username = 'lime',
  mysql_password = '1234lime'
)
```
Description
Get the question text (e.g. "How have you been feeling?") to a question in the dataset.

Usage
get_question_text(question_code)

Arguments
question_code Code by which to identify the question. Follows a dot-based naming scheme: <group title>.<subquestion title>.

Value
'character' object containing the question text

Examples
# This example assumes a locally hosted 'LimeSurvey' instance using a locally
# hosted MySQL server.
# On this 'LimeSurvey' instance, there is a survey with the ID 123456.
# In this survey, a multiple-choice question identified by the code "bdi.01"
# is used.
# For this question, this example retrieves the question text which was shown
# to the user when answering the questionnaire.
## Not run:
connect_to_limesurvey(
  api_url = 'https://localhost/index.php/admin/remotecontrol',
  limesurvey_username = 'admin',
  limesurvey_password = '1234admin',
  mysql_host = '127.0.0.1',
  mysql_port = 3306,
  mysql_dbname = 'limesurvey',
  mysql_username = 'lime',
  mysql_password = '1234lime'
)
q_text <- get_question_text("bdi.01")
## End(Not run)
Description

Get the internal SQL field name (e.g. "697929X4X21") to a question from a specific survey in the dataset.

Usage

get_sql_varname(question_code, survey_id)

Arguments

question_code  Code by which to identify the question. Follows a dot-based naming scheme: <group title>.<subquestion title>.
survey_id Survey-ID of the survey from which to select the question.

Value

‘character’ object containing the field name

Examples

# This example assumes a locally hosted 'LimeSurvey' instance using a locally
# hosted MySQL server.
# On this 'LimeSurvey' instance, there is a survey with the ID 123456.
# In this survey, a multiple-choice question identified by the code "bdi.01"
# is used.
# For this question, this example retrieves name of the SQL table field in
# which 'LimeSurvey' internally stores the responses to this question.
## Not run:
connect_to_limesurvey(
    api_url = 'https://localhost/index.php/admin/remotecontrol',
    limesurvey_username = 'admin',
    limesurvey_password = '1234admin',
    mysql_host = '127.0.0.1',
    mysql_port = 3306,
    mysql_dbname = 'limesurvey',
    mysql_username = 'lime',
    mysql_password = '1234lime'
)
q_varname <- get_sql_varname("bdi.01", 123456)
## End(Not run)
get_survey_data

Description

Get collected data from a specific survey on the connected 'LimeSurvey' instance. Includes complete and incomplete cases! Returns 'NULL' if no data has been collected in this survey.

Usage

get_survey_data(survey_id, completion_status = "all")

Arguments

- survey_id: ID of the survey from which the collected data shall be extracted. 6-digit integer.
- completion_status: 'complete' = Return only complete cases; 'incomplete' = Return only incomplete cases; 'all' = Return both.

Value

A 'data.frame' object containing the survey data. Column names follow a dot-based naming scheme: <group title>.<subquestion title>. 'NULL' if no data has been collected.

Examples

# This example assumes a locally hosted 'LimeSurvey' instance using a locally
# hosted MySQL server.
# On this 'LimeSurvey' instance, there is a survey with the ID 123456.
## Not run:
connect_to_limesurvey(
  api_url = 'https://localhost/index.php/admin/remotecontrol',
  limesurvey_username = 'admin',
  limesurvey_password = '1234admin',
  mysql_host = '127.0.0.1',
  mysql_port = 3306,
  mysql dbname = 'limesurvey',
  mysql_username = 'lime',
  mysql_password = '1234lime'
)

df_data <- get_survey_data(123456)
## End(Not run)
Description
Get numerical LimeSurvey ID of the survey with the given title.

Usage
get_survey_id(survey_title)

Arguments
survey_title Title of the survey. String.

Value
An integer Survey ID which can be used as a parameter in 'get_survey_data()'

Examples
# This example assumes a locally hosted 'LimeSurvey' instance using a locally
# hosted MySQL server.
# On this 'LimeSurvey' instance, there is a survey with the title 'mysurvey'.
## Not run:
connect_to_limesurvey(
  api_url = 'https://localhost/index.php/admin/remotecontrol',
  limesurvey_username = 'admin',
  limesurvey_password = '1234admin',
  mysql_host = '127.0.0.1',
  mysql_port = 3306,
  mysql_dbname = 'limesurvey',
  mysql_username = 'lime',
  mysql_password = '1234lime'
)

survey_id <- get_survey_id('mysurvey')
df_data <- get_survey_data(survey_id)
## End(Not run)
Description

Perform a call to the ‘LimeSurvey’ RPC API.

Usage

limesurvey_api_call(method, params = list(), ...)

Arguments

- **method**: Name of the API method to call. A complete list of methods can be found here: https://api.limesurvey.org/classes/remotecontrol_handle.html
- **params**: Parameters to pass to the API
- **...**: Additional parameters passed from above

Value

A list containing the de-serialized response.

Description

Delete all data collected by this survey.

Usage

wipe_survey_data(survey_id)

Arguments

- **survey_id**: ID of the survey from which the collected data shall be deleted. 6-digit integer.

Value

Nothing. Function is called for side effects on SQL table.
Examples

# This example assumes a locally hosted `LimeSurvey` instance using a locally
# hosted MySQL server.
# On this `LimeSurvey` instance, there is a survey with the ID 123456.
## Not run:
connect_to_limesurvey(
    api_url = 'https://localhost/index.php/admin/remotecontrol',
    limesurvey_username = 'admin',
    limesurvey_password = '1234admin',
    mysql_host = '127.0.0.1',
    mysql_port = 3306,
    mysql_dbname = 'limesurvey',
    mysql_username = 'lime',
    mysql_password = '1234lime'
)

wipe_survey_data(123456)

## End(Not run)
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