Package 'FormShare'

January 20, 2025

Type Package

Title A Simple Connection Between the 'FormShare App' and 'R' for Advanced Analytics

Version 1.0.1

Description Provides analytics directly from 'R'. It requires:
'FormShare App': <https://github.com/qlands/FormShare >= 2.22.0> .
Analytics plugin: <https://github.com/qlands/formshare_analytics_plugin> .
Remote SQL plugin: <https://github.com/qlands/formshare_sql_plugin> .

URL https://github.com/qlands/formshare-R-package

BugReports https://github.com/qlands/formshare-R-package/issues

Depends R (>= 3.0)

Imports R6, httr, jsonlite

License GPL-3

Encoding UTF-8

RoxygenNote 7.2.2

StagedInstall yes

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

NeedsCompilation no

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Repository CRAN

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Contents

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FormShare   *An R6 Class Representing a connection to FormShare*

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Description

The main FormShare class.

Details

This class encapsulates all functions to execute analytics in FormShare.

Public fields

user_id The user ID in FormShare.

api_key The API key used to connect to FormShare.

api_secret The API secret used to connect to FormShare

server_url The FormShare server to connect to

logged_in Whether the used has a valid connection

api_token Token to use in other functions

token_url FormShare URL to retrieve a valid token

Methods

Public methods:

- FormShare$new()
- FormShare$get_api_key()
- FormShare$set_api_key()
- FormShare$get_api_secret()
- FormShare$set_api_secret()
- FormShare$get_server_url()
- FormShare$set_server_url()
- FormShare$login()
- FormShare$get_repositories()
- FormShare$get_tables()
- FormShare$get_fields()
- FormShare$execute()
- FormShare$get_table()
- FormShare$clone()

Method new(): Create a new FormShare object.

Usage:

```
FormShare$new(
  server_url = "https://formshare.org",
  user_id = "",
  api_key = "",
  api_secret = ""
)
```

Arguments:

server_url Server URL. By default https://formshare.org

user_id The user ID to use

api_key The API Key to use.

api_secret The API Secret to use.

Returns: A new FormShare object.

Method get_api_key(): Get the current API key.

Usage:

FormShare$get_api_key()

Method set_api_key(): Sets the current API key.

Usage:

FormShare$set_api_key(new_key)

Arguments:

new_key New API key

Method get_api_secret(): Get the current API secret

Usage:

FormShare$get_api_secret()

Method set_api_secret(): Sets the current API secret.

Usage:

FormShare$set_api_secret(new_secret)

Arguments:

new_secret New API secret

Method get_server_url(): Get the current server URL

Usage:

FormShare$get_server_url()

Method set_server_url(): Sets the current server URL.

Usage:

FormShare$set_server_url(new_url)

Arguments:

new_url New server URL

Method login(): Log-in to the FormShare server and stores a API token

Usage:

```
FormShare$login()
```

Returns: True of False if the connection was successful.

Method `get_repositories()`: Return the repositories that the user has access to.

Usage:

```
FormShare$get_repositories()
```

Returns: A data frame with repositories that the user has access to.

Method `get_tables()`: Get the tables in a repository.

Usage:

```
FormShare$get_tables(repository)
```

Arguments:

`repository` The repository to use

Returns: A data frame with tables inside a repository.

Method `get_fields()`: Get the fields in a table of a repository.

Usage:

```
FormShare$get_fields(repository, table)
```

Arguments:

`repository` The repository to use

`table` The table to use

Returns: A data frame with fields inside a table.

Method `execute()`: Executes an SQL and returns it result.

Usage:

```
FormShare$execute(repository, sql)
```

Arguments:

`repository` The repository to use

`sql` SQL to execute

Returns: A data frame with the result of the execution.

Method `get_table()`: A convenient function to return the contents of a table.

Usage:

```
FormShare$get_table(repository, table)
```

Arguments:

`repository` The repository to use

`table` Table to retrieve

Returns: A data frame with data of the table

Method `clone()`: The objects of this class are cloneable with this method.

Usage:

```
FormShare$clone(deep = FALSE)
```

Arguments:

`deep` Whether to make a deep clone.

Examples

```
# This class requires an API key and secret
# you can get one at https://formshare.org/
#
# Create a new connection to FormShare
my_connection = FormShare$new(server_url = "https://formshare.org",
user_id = "my_user",api_key = "my_api_key",api_secret = "my_api_secret")

# Log in with your account credentials
my_connection$login()

# Get the repositories that your account has access to
repositories = my_connection$get_repositories()

# Get the tables in a repository
tables = my_connection$get_tables("a_repository")

# Get the fields in a table
fields = my_connection$get_fields("a_repository", "a_table")

# Execute a SQL
data = my_connection$execute("a_repository", "SELECT * FROM maintable")

# Get the data from a table
data = my_connection$get_table("a_repository", "a_table")
```

Index

FormShare,