Package ‘Rexperigen’

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Title R Interface to Experigen

Version 0.2.1

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Description Provides convenience functions to communicate with
    an Experigen server: Experigen (<http://github.com/aquincum/experigen>)
    is an online framework for creating linguistic experiments,
    and it stores the results on a dedicated server. This package can be
    used to retrieve the results from the server, and it is especially
    helpful with registered experiments, as authentication with the server
    has to happen.

Depends R (>= 3.2.3)

License GPL-3

URL https://github.com/aquincum/Rexperigen

LazyData true

Imports RCurl, digest, jsonlite

Suggests testthat

RoxygenNote 5.0.1

NeedsCompilation yes

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Run a request to the API

Description

Run a request to the API

Usage

API.request(server = getOption("Rexperigen.server"), request = "version",
params = list(), auth = FALSE, method = "GET")

Arguments

server        The server name (no need to be clean)
request       The request verb to the server
params        A list of name=value pairs that will be passed to the server
auth          Do we send authentication? If this is FALSE, we don’t.
method        The HTTP method to use (GET | POST | PUT | DELETE).

See Also

Other development: checkAuthentication, create.API.request.URL, prepare.server.URL,
server.version
checkAuthentication

Description

Checks whether the authentication is supported by the server and handles the different POST request routes.

Usage

checkAuthentication(request, auth, version.needed = 1)

Arguments

- request: The needed request to be made (without .cgi).
- auth: Whether authentication is requested in R.
- version.needed: The minimum version of the request. If it is 1, and the server is version 1, the function will append .cgi to the request.

Value

A list:

1. request: the request to send
2. auth: whether to still send an authenticated request.

See Also

Other development: API.request, create.API.request.URL, prepare.server.URL, server.version

Examples

checkAuthentication("makecsv", TRUE)
checkAuthentication("registration", TRUE, 2)
**checkLogin**

*Checks whether the user is logged in.*

**Description**

Checks whether the user is logged in. It also throws an exception if the server is of an old version and logging in is not supported.

**Usage**

checkLogin()

**Value**

The experimenter login user name

**Examples**

```r
options(Rexperigen.server.version="2.0.0")
setExperigenCredentials("my", "credentials", check = FALSE)
checkLogin()
```

---

**cleanURL**

*Returns the cleaned source URL.*

**Description**

Experigen has been using some URL cleaning since version 1. This function asks the server (if version >= 2) to return how it would clean the given URL. For older versions, you still have to replace /'s and stuff by .s by yourself, sorry!

**Usage**

cleanURL(sourceURL)

**Arguments**

*sourceURL*  
The source URL to clean

**Value**

The cleaned URL
create.API.request.URL

Create an URL for a request to the Experigen API.

Description

Create an URL for a request to the Experigen API.

Usage

create.API.request.URL(server, request, params = list())

Arguments

server The server name (no need to be clean)
request The request verb to the server
params A list of name=value pairs that will be passed to the server

Value

A URL that can be queried.

See Also

Other development: API.request.checkAuthentication.prepare.server.URL, server.version

Examples

create.API.request.URL("db.phonologist.org", "users", list(sourceurl="x.y", experimentName="z"))
createExperimenter  
Create a login for yourself using this function

Description
Create a login for yourself using this function

Usage
createExperimenter(experimenter, password)

Arguments
experimenter  The username.
password     Your password.

Value
A string that the server returns ("done" if success)

downloadExperiment  
Makes a download request from the server.

Description
This function downloads the results of an experiment.

Usage
downloadExperiment(sourceURL, experimentName, destination = "default.csv", auth = FALSE)

Arguments
sourceURL     The source URL for the experiment
experimentName The experiment name as set in settings.js
destination   The file to download. By default, all uploaded results are saved in default.csv, which is the default file to download.
auth          Whether authentication is needed

Value
The downloaded data set as data frame
getDestinations

See Also

Other download: getDestinations, getUsers

Examples

## Not run:
downloadExperiment("https://s3.amazonaws.com/myexperiment/index.html", "testing")

## End(Not run)

getDestinations Returns the list of destination files for an experiment.

Description

Returns the list of destination files for an experiment.

Usage

getDestinations(sourceURL, experimentName, auth = FALSE)

Arguments

sourceURL The source URL for the experiment
experimentName The experiment name as set in settings.js
auth Whether authentication is needed

Value

The list of destinations

See Also

Other download: downloadExperiment, getUsers

Examples

## Not run:

## End(Not run)
getRegisteredExperiments

Get a list of registered experiments.

Description

Returns a list of the registered experiments for the logged in experimenter.

Usage

getRegisteredExperiments()

Value

The parsed list of experiments

See Also

Other registration: registerExperiment, removeRegistration

Examples

```plaintext
## Not run:
getRegisteredExperiments()

## End(Not run)
```

getUsers

Requests the table of users from the server.

Description

Requests the table of users from the server.

Usage

getUsers(sourceURL, experimentName, auth = FALSE)

Arguments

- `sourceURL` The source URL for the experiment
- `experimentName` The experiment name as set in settings.js
- `auth` Whether authentication is needed
logoutExperigen

Value

The table of users

See Also

Other download: downloadExperiment, getDestinations

Examples

```r
## Not run:

## End(Not run)
```

<table>
<thead>
<tr>
<th>logoutExperigen</th>
<th>Simply removes the stored credentials, so following requests will be unauthenticated.</th>
</tr>
</thead>
</table>

Description

Simply removes the stored credentials, so following requests will be unauthenticated.

Usage

```r
logoutExperigen()
```

<table>
<thead>
<tr>
<th>NO_SERVER_ERROR</th>
<th>Error string returned when no server is found</th>
</tr>
</thead>
</table>

Description

Error string returned when no server is found

Usage

```r
NO_SERVER_ERROR
```

Format

An object of class character of length 1.
**prepare.server.URL**

*Server URL preparation.*

**Description**

Prepares the server URL by checking for the presence of a protocol prefix, and prefixing http:// if there is none. Also, returns the URL with a trailing / if that was not present either.

**Usage**

```
prepare.server.URL(server)
```

**Arguments**

- `server` A server name.

**Value**

A clean URL with protocol prefix and trailing slash.

**See Also**

Other development: API.request, checkAuthentication, create.API.request.URL, server.version

**Examples**

```
prepare.server.URL("db.phonologist.org")
prepare.server.URL("https://myserver.com/")
```

---

**registerExperiment**

*Registers an experiment to the experimenter.*

**Description**

Registers the given experiment to the experimenter. Returns the server’s response. Do provide the credentials before calling this function.

**Usage**

```
registerExperiment(sourceURL, experimentName)
```

**Arguments**

- `sourceURL` The source URL for the experiment
- `experimentName` The experiment name as set in settings.js
removeRegistration

Value
The server response.

See Also
Other registration: getRegisteredExperiments, removeRegistration

Examples

## Not run:
```
registerExperiment("https://s3.amazonaws.com.myexperiment.index.html", "running")
```

## End(Not run)

---

removeRegistration Removes the registration of the experiment

Description
Removes the registration of the experiment to the logged in experimenter. Does not remove any data though! All of the data will be available to anyone.

Usage
```
removeRegistration(sourceURL, experimentName)
```

Arguments
- sourceURL: The source URL for the experiment
- experimentName: The experiment name as set in settings.js

Value
The server response.

See Also
Other registration: getRegisteredExperiments, registerExperiment

Examples

## Not run:
```
removeRegistration("https://s3.amazonaws.com.myexperiment.index.html", "running")
```

## End(Not run)
Rexperigen

Rexperigen: an R interface to Experigen

Description
An R interface for downloading results from an Experigen server. Works with the "classic" server that is currently running on db.experigen.org as well, but its main advantage is that it helps a lot with the new functions of the newer version of the Experigen server. Most importantly, it helps with registration of experimenters, registration of experiments and accessing their data.

Setup functions
setExperigenServer, setExperigenCredentials

Registration functions
registerExperiment, removeRegistration, getRegisteredExperiments

Download functions
The main function is downloadExperiment. Further information about the experiment can be inquired with getUsers and getDestinations

server.version

Returns the version of an Experigen server

Description
Returns the version of an Experigen server

Usage
server.version(server =getOption("Rexperigen.server"))

Arguments
server The server name

Value
A string with the Experigen server version

See Also
Other development: API.request, checkAuthentication, create.API.request.URL, prepare.server.URL
setExperigenCredentials

Examples

    server.version("db.phonologist.org")

setExperigenCredentials

Sets up the experimenter credentials for the further requests. It can also check whether the authentication is successful.

Description

Sets up the experimenter credentials for the further requests. It can also check whether the authentication is successful.

Usage

    setExperigenCredentials(experimenter, password, check = TRUE, quiet = FALSE)

Arguments

    experimenter  The experimenter username
    password      The password for the experimenter
    check         Whether to check if the experimenter is registered.
    quiet         If TRUE, the function will not print out the result of the existence check

Value

Whether the existence check is successful. If check = FALSE, it will return TRUE by default

See Also

Other setup: setExperigenServer

Examples

    ## Not run:
    setExperigenCredentials("joesmith", "1234")

    ## End(Not run)
    setExperigenCredentials("janemiller", "passdrow", check = FALSE)
setExperigenServer  Sets the Experigen server address for further operations. By default, it checks the existence of the server and sets the Rexperigen.server.version option based on the response of the server. If check = FALSE, set the version by yourself!

Description
Sets the Experigen server address for further operations. By default, it checks the existence of the server and sets the Rexperigen.server.version option based on the response of the server. If check = FALSE, set the version by yourself!

Usage
setExperigenServer(server, check = TRUE)

Arguments
- server: The server’s URL
- check: Whether to check the server’s existence

See Also
Other setup: setExperigenCredentials

Examples
setExperigenServer("db.phonologist.org")
setExperigenServer("localhost:3000", FALSE)

versionMain  Returns the main version number of the server.

Description
Returns the main version number of the server.

Usage
versionMain()

Value
The main version number as a numeric
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