

Package ‘gitgadget’

August 15, 2022

Type Package

Title 'Rstudio' Addin for Version Control and Assignment Management using Git

Version 0.7.5

Date 2022-8-13

Description An 'Rstudio' addin for version control that allows users to clone repositories, create and delete branches, and sync forks on GitHub, GitLab, etc. Furthermore, the addin uses the GitLab API to allow instructors to create forks and merge requests for all students/teams with one click of a button.

Depends R (>= 3.6.0)

Imports shiny (>= 1.7.1), miniUI (>= 0.1.1.1), rstudioapi (>= 0.7), curl (>= 3.2), jsonlite (>= 1.5), dplyr (>= 0.8.3), shinyFiles (>= 0.7.5), callr (>= 2.0.4), usethis (>= 1.5.1), markdown

Suggests knitr, rmarkdown

URL URL: <https://github.com/vnijs/gitgadget>

BugReports <https://github.com/vnijs/gitgadget/issues>

License GPL-3

RoxygenNote 7.1.2

Encoding UTF-8

Language en-US

VignetteBuilder knitr

NeedsCompilation no

Author Vincent Nijs [aut, cre],
Sanjiv Erat [aut]

Maintainer Vincent Nijs <vnijs@ucsd.edu>

Repository CRAN

Date/Publication 2022-08-15 07:10:16 UTC

R topics documented:

add_users_repo	2
assign_work	3
checkerr	4
check_tokens	4
collect_work	5
create_group	5
create_repo	6
fetch_work	7
get_port	7
gitgadget	8
gitgadget_callr	8
gitgadget_url	9
projID	9
read_ufile	10
remove_project	10
remove_users_repo	11
Index	12

add_users_repo	<i>Add users to a repo</i>
----------------	----------------------------

Description

Add users to a repo

Usage

```
add_users_repo(
  token,
  repo,
  userfile,
  permission = 20,
  server = "https://gitlab.com/api/v4/"
)
```

Arguments

token	GitLab token
repo	Repo to update
userfile	A csv file with student information (i.e., username, token, and email)
permission	Permission setting for the repo (default is 20, i.e., reporter)
server	The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

 assign_work

Assign work to each student/team by creating a fork of the main repo

Description

Assign work to each student/team by creating a fork of the main repo

Usage

```
assign_work(
  token,
  groupname,
  assignment,
  userfile,
  tafile = "",
  type = "individual",
  pre = "",
  server = "https://gitlab.com/api/v4/"
)
```

Arguments

token	GitLab token
groupname	Group to create on GitLab (defaults to user's namespace)
assignment	Name of the assignment to assign
userfile	A csv file with student information (i.e., username, token, and email)
tafile	A optional csv file with TA information (i.e., username, token, and email)
type	Individual or Team work
pre	Pre-amble for the assignment name, usually groupname + "-"
server	The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

checkerr *Check error status*

Description

Check error status

Usage

```
checkerr(code)
```

Arguments

code Code returned by an API request

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

check_tokens *Check student tokens*

Description

Check student tokens

Usage

```
check_tokens(  
  userfile,  
  server = Sys.getenv("git.server", "https://gitlab.com/api/v4/")  
)
```

Arguments

userfile A csv file with student information (i.e., username, token, and email)
server The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

collect_work	<i>Create merge requests for each student/team</i>
--------------	--

Description

Create merge requests for each student/team

Usage

```
collect_work(  
  token,  
  assignment,  
  userfile,  
  type = "individual",  
  server = "https://gitlab.com/api/v4/"  
)
```

Arguments

token	GitLab token
assignment	Name of the assignment (e.g., "class345/class345-assignment1")
userfile	A csv file with student information (i.e., username, token, and email)
type	Individual or Team work
server	The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

create_group	<i>Create a group on GitLab using the API</i>
--------------	---

Description

Create a group on GitLab using the API

Usage

```
create_group(  
  token,  
  groupname = "",  
  userfile = "",  
  permission = 20,  
  server = "https://gitlab.com/api/v4/"  
)
```

Arguments

token	GitLab token
groupname	Group to create on GitLab (defaults to user's namespace)
userfile	A csv file with student information (i.e., username, token, and email)
permission	Permission setting for the group (default is 20, i.e., reporter)
server	The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

create_repo	<i>Create the main repo from a local directory</i>
-------------	--

Description

Create the main repo from a local directory

Usage

```
create_repo(
  username = Sys.getenv("git.user"),
  token = Sys.getenv("git.token"),
  repo = basename(getwd()),
  base_dir = dirname(getwd()),
  groupname = "",
  pre = "",
  ssh = FALSE,
  server = "https://gitlab.com/api/v4/"
)
```

Arguments

username	Username
token	Token (e.g., Sys.getenv("git.token") or Sys.getenv("GITHUB_PAT"))
repo	Name of the repo (assignment)
base_dir	Base directory for the repo. file.path(directory, assignment) should exist
groupname	Group to create on GitLab (defaults to user's namespace)
pre	Pre-amble for the repo (assignment) name
ssh	Use SSH for authentication
server	The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

fetch_work	<i>Fetch all merge requests as local branches and link to a remote</i>
------------	--

Description

Fetch all merge requests as local branches and link to a remote

Usage

```
fetch_work(token, assignment, page = 1, server = "https://gitlab.com/api/v4/")
```

Arguments

token	GitLab token
assignment	Name of the assignment (e.g., "class345/class345-assignment1")
page	Number of the results page to select
server	The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

get_port	<i>noRd export</i>
----------	--------------------

Description

noRd export

Usage

```
get_port()
```

`gitgadget`*gitgadget*

Description

Run gitgadget in the Rstudio viewer if available

Usage

```
gitgadget(port = get_port(), host = "127.0.0.1", launch.browser = TRUE)
```

Arguments

`port` Port to use for the app

`host` Host ip to use

`launch.browser` Launch app in viewer (browsers) or only show the URL

Details

See <https://github.com/vnijs/gitgadget> for documentation

`gitgadget_callr`*Launch gitgadget in a separate process*

Description

Launch gitgadget in a separate process

Usage

```
gitgadget_callr()
```

Details

Using the callr package to launch gitgadget in a separate process so the console is not blocked. Rstudio viewer is used if available. See <https://github.com/vnijs/gitgadget> for documentation

gitgadget_url	<i>Start gitgadget and show url to open the application in an external browser</i>
---------------	--

Description

Start gitgadget and show url to open the application in an external browser

Usage

```
gitgadget_url()
```

Details

See <https://github.com/vnijs/gitgadget> for documentation

projID	<i>Find project ID</i>
--------	------------------------

Description

Find project ID

Usage

```
projID(path_with_namespace, token, server, owned = TRUE, search = "")
```

Arguments

path_with_namespace	Repo name together with the group or user namespace
token	GitLab token
server	The GitLab API server
owned	Restrict listing to only repos owned by the user? TRUE or FALSE
search	Search term to use to narrow down the set of projects

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

read_ufile	<i>Reach user file</i>
------------	------------------------

Description

Reach user file

Usage

```
read_ufile(userfile, cols = c("userid", "team", "token"))
```

Arguments

userfile	File with student information
cols	Column names that must exists in the file

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

remove_project	<i>Remove a project</i>
----------------	-------------------------

Description

Remove a project

Usage

```
remove_project(token, id, server)
```

Arguments

token	GitLab token
id	Project ID
server	The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

remove_users_repo	<i>Remove users from a repo</i>
-------------------	---------------------------------

Description

Remove users from a repo

Usage

```
remove_users_repo(token, repo, userfile, server = "https://gitlab.com/api/v4/")
```

Arguments

token	GitLab token
repo	Repo the update
userfile	A csv file with student information (i.e., username, token, and email)
server	The GitLab API server

Details

See <https://github.com/vnijs/gitgadget> for additional documentation

Index

add_users_repo, 2
assign_work, 3

check_tokens, 4
checkerr, 4
collect_work, 5
create_group, 5
create_repo, 6

fetch_work, 7

get_port, 7
gitgadget, 8
gitgadget_callr, 8
gitgadget_url, 9

projID, 9

read_ufile, 10
remove_project, 10
remove_users_repo, 11