Package ‘gitlabr’

August 5, 2021

Title Access to the 'Gitlab' API

Version 2.0.0

Description Provides R functions to access the API of the project and repository management web application 'GitLab'. For many common tasks (repository file access, issue assignment and status, commenting) convenience wrappers are provided, and in addition the full API can be used by specifying request locations. 'GitLab' is open-source software and can be self-hosted or used on <https://about.gitlab.com>.

License GPL (>= 3)

URL https://statnmap.github.io/gitlabr/

BugReports https://github.com/statnmap/gitlabr/issues

Depends R (>= 3.1.2)

Imports arpr, base64enc, dplyr (>= 0.4.3), httr (>= 1.1.0), magrittr, purr (>= 0.2.2), shiny (>= 0.13.0), stringr, tibble (>= 1.1), utils

Suggests knitr, rmarkdown, testthat (>= 1.0.2), yaml

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NeedsCompilation no

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Request GitLab API

**Description**

This is gitlabr’s core function to talk to GitLab’s server API via HTTP(S). Usually you will not use this function directly too often, but either use gitlabr’s convenience wrappers or write your own. See the gitlabr vignette for more information on this.

**Usage**

```r
gitlab(
  req,
  api_root,
  verb = httr::GET,
  auto_format = TRUE,
  debug = FALSE,
  gitlab_con = "default",
  page = "all",
)```

**R topics documented:**

- `gitlab`: Request GitLab API.
- `gitlabr-deprecated`: Deprecation-related functions.
- `gitlabr_0_7_renaming`: Renaming-related functions.
- `gitlabr_options_set`: Option setting functions.
- `glLoginInput`: Login input functions.
- `gl_archive`: Archive-related functions.
- `gl_ci_job`: CI Job-related functions.
- `gl_connection`: Connection-related functions.
- `gl_create_merge_request`: Merge request creation functions.
- `gl_get_comments`: Comment-related functions.
- `gl_get_commits`: Commit-related functions.
- `gl_get_project_id`: Project ID-related functions.
- `gl_list_branches`: Branch-related functions.
- `gl_list_issues`: Issue-related functions.
- `gl_list_projects`: Project-related functions.
- `gl_new_issue`: Issue creation functions.
- `gl_new_project`: Project creation functions.
- `gl_pipelines`: Pipeline-related functions.
- `glProj_req`: Project request-related functions.
- `gl_push_file`: Push file-related functions.
- `gl_repository`: Repository-related functions.
- `gl_to_issue_id`: Issue ID transformation functions.
- `set_gitlab_connection`: Connection setup functions.
- `use_gitlab_ci`: CI usage-related functions.
max_page = 10,
enforce_api_root = TRUE,
argname_verb = if (identical(verb, httr::GET) | identical(verb, httr::DELETE)) {
  "query" } else { "body" },
...
)

Arguments

req vector of characters that represents the call (e.g. c("projects","project_id","events"))
api_root URL where the GitLab API to request resides (e.g. https://gitlab.myserver.com/api/v3/)
verb http verb to use for request in form of one of the httr functions httr::GET(),
         httr::PUT(), httr::POST(), httr::DELETE()
auto_format whether to format the returned object automatically to a flat data.frame
debug if TRUE API URL and query will be printed, defaults to FALSE
gitlab_con function to use for issuing API requests (e.g. as returned by gitlab_connection())
page number of page of API response to get; if "all" (default), all pages (up to max_page parameter!) are queried successively and combined.
max_page maximum number of pages to retrieve. Defaults to 10. This is an upper limit to prevent gitlabr getting stuck in retrieving an unexpectedly high number of entries (e.g. of a project list). It can be set to NA/Inf to retrieve all available pages without limit, but this is recommended only under controlled circumstances.
enforce_api_root if multiple pages are requested, the API root URL is ensured to be the same as in the original call for all calls using the "next page" URL returned by GitLab. This makes sense for security and in cases where GitLab is behind a reverse proxy and ignorant about its URL from external.
argname_verb name of the argument of the verb that fields and information are passed on to
... named parameters to pass on to GitLab API (technically: modifies query parameters of request URL), may include private_token and all other parameters as documented for the GitLab API

Details

gitlab() function allows to use any request of the GitLab API https://docs.gitlab.com/ee/api/.

For instance, the API documentation shows how to create a new project in https://docs.gitlab.com/ee/api/projects.html#create-project:

• The verb is POST
• The request is projects
• Required attributes are name or path (if name not set)
• default_branch is an attribute that can be set if wanted

The corresponding use of gitlab() is:
gitlab(
    req = "projects",
    verb = httr::POST,
    name = "toto",
    default_branch = "main"
)

Note: currently GitLab API v4 is supported. GitLab API v3 is no longer supported, but you can give it a try.

Value

the response from the GitLab API, usually as a tibble and including all pages

Examples

## Not run:
# Connect as a fixed user to a GitLab instance
set_gitlab_connection(
    gitlab_url = "https://gitlab.com",
    private_token = Sys.getenv("GITLAB_COM_TOKEN")
)

# Use a simple request
gitlab(req = "projects")
# Use a combined request with extra parameters
gitlab(req = c("projects", 1234, "issues"),
    state = "closed")

## End(Not run)

---

### Deprecated functions

**Description**

Many functions were renamed with version 0.7 to the gl_ naming scheme. Note that the old function names are deprecated and might be removed without further notice.

**Usage**

archive(...)

assign_issue(...)

close_issue(...)

comment_commit(...)

comment_issue(...)  
create_branch(...)  
create_merge_request(...)  
delete_branch(...)  
edit_commit_comment(...)  
edit_issue(...)  
edit_issue_comment(...)  
file_exists(...)  
get_comments(...)  
get_commit_comments(...)  
get_commits(...)  
get_diff(...)  
get_file(...)  
get_issue(...)  
get_issue_comments(...)  
get_issues(...)  
get_project_id(...)  
gitlab_connection(...)  
list_branches(...)  
list_files(...)  
list_projects(...)  
new_issue(...)  
project_connection(...)  
proj_req(...)
push_file(...)
reopen_issue(...)
repository(...)
to_issue_id(...)
unassign_issue(...)

Arguments

... Parameters to the new function

Value

Warning for deprecated functions and output depending on the superseeding function.

Details

archive is now called gl_archive
assign_issue is now called gl_assign_issue
close_issue is now called gl_close_issue
comment_commit is now called gl_comment_commit
comment_issue is now called gl_comment_issue
create_branch is now called gl_create_branch
create_merge_request is now called gl_create_merge_request
delete_branch is now called gl_delete_branch
edit_commit_comment is now called gl_edit_commit_comment
edit_issue is now called gl_edit_issue
edit_issue_comment is now called gl_edit_issue_comment
file_exists is now called gl_file_exists
get_comments is now called gl_get_comments
get_commit_comments is now called gl_get_commit_comments
get_commits is now called gl_get_commits
get_diff is now called gl_get_diff
get_file is now called gl_get_file
get_issue is now called gl_get_issue
get_issue_comments is now called gl_get_issue_comments
get_issues is now called gl_list_issues
get_project_id is now called gl_get_project_id
gitlab_connection is now called gl_connection
list_branches is now called gl_list_branches
list_files is now called gl_list_files
list_projects is now called gl_list_projects
new_issue is now called gl_new_issue
project_connection is now called gl_project_connection
proj_req is now called gl_proj_req
push_file is now called gl_push_file
### gitlabr_0_7_renaming

renaming from gitlabr version 0.6.4 to 0.7

#### Description

List of old and new function names.

#### Format

A data frame with 33 rows and 2 variables

#### gitlabr_options_set

Set gitlabr options

#### Description

Set gitlabr options

#### Usage

```
gitlabr_options_set(key, value)
```

#### Arguments

- `key`: option name
- `value`: option value

#### Details

Options accounted for by gitlabr:

- `gitlabr.main`: Name of the main branch of your repository. Default to "main" in functions.

#### Value

Used for side effect. Populates user `options()`
Examples

# Principal branch is called "master"
gitlabr_options_set("gitlabr.main", "master")
# Go back to default option (default branch will be "main")
gitlabr_options_set("gitlabr.main", NULL)

---

**glLoginInput**

*Shiny module to login to GitLab API*

Description

The UI contains a login and a password field as well as an (optional) login button. The server side function returns a reactive GitLab connection, just as `gl_connection()` and `gl_project_connection()`.

Usage

```r
glLoginInput(id, login_button = TRUE)
```

```r
glReactiveLogin(
  input, output, session, gitlab_url, project = NULL, api_version = 4,
  success_message = "GitLab login successful!",
  failure_message = "GitLab login failed!",
  on_error = function(...) { stop(failure_message) }
)
```

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>id</td>
<td>shiny namespace for the login module</td>
</tr>
<tr>
<td>login_button</td>
<td>whether to show a login button (TRUE) or be purely reactive (FALSE)</td>
</tr>
<tr>
<td>input</td>
<td>from shinyServer function, usually not user provided</td>
</tr>
<tr>
<td>output</td>
<td>from shinyServer function, usually not user provided</td>
</tr>
<tr>
<td>session</td>
<td>from shinyServer function, usually not user provided</td>
</tr>
<tr>
<td>gitlab_url</td>
<td>root URL of GitLab instance to login to</td>
</tr>
<tr>
<td>project</td>
<td>if not NULL, a codegl_project_connection is created to this project</td>
</tr>
<tr>
<td>api_version</td>
<td>A character with value either &quot;3&quot; or &quot;4&quot; to specify the API version that should be used</td>
</tr>
<tr>
<td>success_message</td>
<td>message text to be displayed in the UI on successful login</td>
</tr>
<tr>
<td>failure_message</td>
<td>message text to be displayed in the UI on login failure in addition to HTTP status</td>
</tr>
<tr>
<td>on_error</td>
<td>function to be returned instead of GitLab connection in case of login failure</td>
</tr>
</tbody>
</table>
Details

`glLoginInput` is supposed to be used inside a `shinyUI`, while `glReactiveLogin` is supposed to be passed on to `shiny::callModule()`

Value

An input or output element for use in shiny UI.

gl_archive

Description

Archive a repository

Usage

`gl_archive(project, ...)`

Arguments

<table>
<thead>
<tr>
<th>project</th>
<th>Project name or id</th>
</tr>
</thead>
<tbody>
<tr>
<td>...</td>
<td>further parameters passed on to <code>gitlab()</code> API call, may include parameter <code>sha</code> for specifying a commit hash</td>
</tr>
</tbody>
</table>

Value

if `save_to_file` is NULL, a raw vector of the archive, else the path to the saved archived file

Examples

```r
## Not run:
set_gitlab_connection(
  gitlab_url = "https://gitlab.com",
  private_token = Sys.getenv("GITLAB_COM_TOKEN")
)

## Not run:
gl_archive(project = "<<your-project-id>>", save_to_file = "example-project.zip")
## End(Not run)
```
gl_ci_job  Define GitLab CI jobs content

Description

Exploration of job content is deprecated as of 'gitlabr' 1.1.7. Content of .gitlab-ci.yml file is now created using templates with use_gitlab_ci(type = "check-coverage-pkgdown"). See use_gitlab_ci().

Usage

gl_ci_job()

Value

Creates the content of a .gitlab-ci.yml file as character.

See Also

use_gitlab_ci()

Examples

## Not run:
# Deprecated
gl_ci_job()

## End(Not run)

gl_connection  Connect to a specific GitLab instance API

Description

Creates a function that can be used to issue requests to the specified GitLab API instance with the specified user private token and (for gl_project_connection) only to a specified project.

Usage

```
gl_connection(
  github_url,  # required
  private_token,  # required
  api_version = 4,
  api_location = paste0("/api/v", api_version, "/")
)
```

gl_project_connection(

```
```r
    gl_connection

    gl_connection = function(gitlab_url, project, private_token, api_version = 4, api_location = paste0("/api/v", api_version, "/")
    )

Arguments

    gitlab_url  URL to the GitLab instance (e.g. https://gitlab.myserver.com)
    private_token  private_token with which to identify. You can generate one in the web interface under GITLABINSTANCEURL/-/profile/personal_access_tokens.html when logged on.
    api_version  Currently "4" for the latest GitLab API version. See Details section on API versions.
    api_location  location of the GitLab API under the gitlab_url, usually and by default "/api/$api_version/"
    project  id or name of project to issue requests to

Details

    The returned function should serve as the primary way to access the GitLab API in the following. It can take vector/character arguments in the same way as the function gitlab() does, as well as the convenience functions provided by this package or written by the user. If it is passed such that function it calls it with the arguments provided in ... and the GitLab URL, api location and private_token provided when creating it via gl_connection.

    Note: currently GitLab API v4 is supported. GitLab API v3 is no longer supported, but you can give it a try.

Value

    A function to access a specific GitLab API as a specific user, see details

API versions

    "v4" is the standard API since GitLab version 9.0 and only this version is officially supported by gitlabr since version 1.1.6. "v3" as a parameter value is not removed, since for many instances, gitlabr code will still work if you try.

Examples

    ## Not run:
    # Set the connection for the session
    set_gitlab_connection("https://gitlab.com", private_token = Sys.getenv("GITLAB_COM_TOKEN"))
    # Get list of projects
    gl_list_projects(max_page = 1)
    # Unset the connection for the session
    unset_gitlab_connection()

    # Set connection for a specific project
```
```r
my_project <- gl_project_connection(
  gitlab_url = "https://gitlab.com",
  project = 1234,
  private_token = Sys.getenv("GITLAB_COM_TOKEN")
)
# List files of a project
my_project_list_files <- my_project(gl_list_files, max_page = 1)
## End(Not run)

---

**gl_create_merge_request**

*Manage merge requests*

**Description**

Manage merge requests

**Usage**

```r
gl_create_merge_request(
  project,
  source_branch,
  target_branch = get_main(),
  title,
  description,
  ...
)
```

gl_edit_merge_request(project, merge_request_iid, ...)

gl_close_merge_request(project, merge_request_iid)

gl_delete_merge_request(project, merge_request_iid, ...)

gl_list_merge_requests(project, ...)

**Arguments**

- `project` name or id of project (not repository!)
- `source_branch` name of branch to be merged
- `target_branch` name of branch into which to merge
- `title` title of the merge request
- `description` description text for the merge request
- `...` passed on to `gitlab()`. Might contain more fields documented in GitLab API doc.
gl_get_comments

merge_request_iid

iid of the merge request

Value

 Tibble of created or remaining merge requests of the project with informative variables.

Examples

## Not run:
set_gitlab_connection(
    gitlab_url = "https://gitlab.com",
    private_token = Sys.getenv("GITLAB_COM_TOKEN")
)

# Create MR and get its information
mr_infos <- gl_create_merge_request(project = <<your-project-id>>,
    source_branch = "my-extra-branch",
    title = "Merge extra to main", description = "These modifications are wonderful")

# List all opened MR
gl_list_merge_requests(project = <<your-project-id>>, status = "opened")

# Edit MR created
gl_edit_merge_request(project = <<your-project-id>>, merge_request_iid = mr_infos$iid,
    assignee_id = "<<user-id>>")

# Close MR
gl_close_merge_request(project = <<your-project-id>>, merge_request_iid = mr_infos$iid)

# Delete MR as it never existed
gl_delete_merge_request(project = <<your-project-id>>, merge_request_iid = mr_infos$iid)

## End(Not run)

---

gl_get_comments

**Get the comments/notes of a commit or issue**

Description

Get the comments/notes of a commit or issue

Usage

gl_get_comments(project, object_type = "issue", id, note_id = c(), ...)

gl_get_issue_comments(project, id, ...)

gl_get_commit_comments(project, id, ...)

gl_comment_commit(project, id, text, ...)

gl_comment_issue(project, id, text, ...)
gl_get_comments

\texttt{gl\_edit\_comment}(project, object\_type, text, ...)

\texttt{gl\_edit\_issue\_comment}(project, ...)

\texttt{gl\_edit\_commit\_comment}(project, ...)

\textbf{Arguments}

\begin{itemize}
  \item \textbf{project} \hspace{1cm} project name or id
  \item \textbf{object\_type} \hspace{1cm} one of "issue" or "commit". Snippets and merge_requests are not implemented yet.
  \item \textbf{id} \hspace{1cm} id of object:
    \begin{itemize}
      \item commits: sha
      \item issues notes/comments:
        \begin{itemize}
          \item (project-wide) id for api version 4,
          \item (global) iid for api version 3
        \end{itemize}
    \end{itemize}
  \item \textbf{note\_id} \hspace{1cm} id of note
  \item \textbf{text} \hspace{1cm} Text of comment/note to add or edit (translates to GitLab API note/body respectively)
\end{itemize}

\textbf{Details}

\begin{itemize}
  \item \texttt{gl\_comment\_commit}: might also contain path, line and line\_type (old or new) to attach the comment to a specific in a file. See https://docs.gitlab.com/ce/api/commits.html
  \item \texttt{gl\_get\_issue\_comments}: might also contain comment\_id to get a specific comment of an issue.
\end{itemize}

\textbf{Value}

Tibble of comments with descriptive variables.

\textbf{Examples}

```
## Not run:
# fill in login parameters
set\_gitlab\_connection(gitlab\_url = "https://gitlab.com",
private\_token = Sys.getenv("GITLAB\_COM\_TOKEN"))
gl\_get\_comments(project = "<<your\_project\_id>>", object\_type = "issue", 1)
gl\_get\_comments(project = "<<your\_project\_id>>", "commit",
  id = "8ce5ef240123cd78c1537991e5de8d8323666b15")
gl\_comment\_issue(project = "<<your\_project\_id>>", 1,
  text = "Almost done!")
```

## End(Not run)
gl_get_commits

Get commits and diff from a project repository

Description

Get commits and diff from a project repository

Usage

gl_get_commits(project, commit_sha = c(), ...)

    gl_get_diff(project, commit_sha, ...)

Arguments

  project                  project name or id
  commit_sha              if not null, get only the commit with the specific hash; for gl_get_diff() this
                          must be specified
  ...                     passed on to gitlab() API call, may contain ref_name for specifying a branch
                          or tag to list commits of

Value

Tibble of commits or diff of the branch with informative variables.

Examples

  ## Not run:
  my_commits <- gl_get_commits("<<your-project-id>>")
  gl_get_commits("<<your-project-id>>", my_commits$id[1])

  ## End(Not run)

---

gl_get_project_id

Get a project id by name

Description

Get a project id by name

Usage

gl_get_project_id(project_name, ...)

---
Arguments

- `project_name`: project name
- ... passed on to `gitlab()`

Details

Number of pages searched is limited to (per_page =) 20 * (max_page =) 10 by default. If the `project_name` is an old project lost in a big repository (position > 200), `gl_get_project_id()` may not find the project id.

Value

Integer. ID of the project if found.

Examples

```r
## Not run:
gl_get_project_id("<<your-project-name>>")
## End(Not run)
```

---

### gl_list_branches

**List, create and delete branches**

**Description**

List, create and delete branches

**Usage**

```r
gl_list_branches(project, ...)
gl_get_branch(project, branch, ...)
gl_create_branch(project, branch, ref = get_main(), ...)
gl_delete_branch(project, branch, ...)
```

**Arguments**

- `project`: name or id of project (not repository!)
- ... passed on to `gitlab()`
- `branch`: name of branch to create / delete / get information
- `ref`: ref name of origin for newly created branch
Value

Tibble of branches available in the project with descriptive variables

Examples

```r
## Not run:
set_gitlab_connection(gitlab_url = "https://gitlab.com",
                      private_token = Sys.getenv("GITLAB_COM_TOKEN"))
project_id <- ... ## Fill in your project ID

# List branches of the project
gl_list_branches(project_ = "<<your-project-id>>")
# Create branch "new_feature"
gl_create_branch(project = "<<your-project-id>>",
                  branch = "new_feature")
# Confirm that the branch was created
gl_get_branch("<<your-project-id>>", branch = "new_feature")
# List all branches - this may take some time before your branch really appears there
gl_list_branches(project = "<<your-project-id>>")
# Delete branch again
gl_delete_branch(project = "<<your-project-id>>",
                  branch = "new_feature")
# Check that we're back where we started
gl_list_branches(project = "<<your-project-id>>")

## End(Not run)
```

---

**gl_list_issues**  
*Get issues of a project or user*

Description

Get issues of a project or user

Usage

```r
gl_list_issues(
  project = NULL,
  issue_id = NULL,
  verb = httr::GET,
  api_version = 4,
  ...
)
```

```r
gl_get_issue(project, issue_id, ...)
```
Arguments

project project name or id, may be null for all issues created by user. If using the ID, set it as numeric, otherwise this is used as project name.

issue_id optional issue id (projectwide; for API v3 only you can use global iid when api_version is 3)

verb ignored; all calls with this function will have `gitlab()`'s default verb `httr::GET`

api_version a switch to force deprecated GitLab API v3 behavior that allows filtering by global iid. If 3 filtering happens by global iid, if false, it happens by projectwide ID. For API v4, this must be FALSE (default)

... further parameters passed on to `gitlab()`, may be state, labels, issue id, ...

Details

`gl_get_issue` provides a wrapper with swapped arguments for convenience, esp. when using a project connection

Value

Tibble of issues of the project with descriptive variables.

Examples

```r
## Not run:
# Set the connection for the session
set_gitlab_connection(
  gitlab_url = test_url,
  private_token = test_private_token
)
# list issues
gl_list_issues("<<your-project-id>>", max_page = 1)
# list opened issues
gl_list_issues("<<your-project-id>>", state = "opened")
# Get one issue
gl_get_issue("<<your-project-id>>", issue_id = 1)
# Create new issue
gl_new_issue("<<your-project-id>>", title = "Implement new feature",
  description = "It should be awesome.")
# Assign user to issue 1
gl_assign_issue("<<your-project-id>>", issue_id = 1, assignee_id = "<<user-id>>")

## End(Not run)
```
**gl_list_projects**

**List projects information**

**Description**

List projects information

**Usage**

- `gl_list_projects(...)`
- `gl_get_projects(...)`
- `gl_list_user_projects(user_id, ...)`
- `gl_get_project(project, ...)`

**Arguments**

- `...`: passed on to `gitlab()`
- `user_id`: id of the user to list project from
- `project`: project name or id

**Details**

`gl_list_projects()` is an alias for `gl_get_projects()`

**Value**

tibble of each project with corresponding information

**Examples**

```r
## Not run:
set_gitlab_connection(
  gitlab_url = "https://gitlab.com",
  private_token = Sys.getenv("GITLAB_COM_TOKEN")
)
# List all projects
gl_get_projects(max_page = 1)
# List users projects
gl_list_user_projects(user_id = "<<user-id>>", max_page = 1)
## End(Not run)
```
Description

Post a new issue or edit one

Usage

\[\text{gl\_new\_issue(project, title, ...)}\]
\[\text{gl\_create\_issue(project, title, ...)}\]
\[\text{gl\_edit\_issue(project, issue\_id, api\_version = 4, ...)}\]
\[\text{gl\_close\_issue(project, issue\_id, ...)}\]
\[\text{gl\_reopen\_issue(project, issue\_id, ...)}\]
\[\text{gl\_assign\_issue(project, issue\_id, assignee\_id = NULL, ...)}\]
\[\text{gl\_unassign\_issue(project, issue\_id, ...)}\]
\[\text{gl\_delete\_issue(project, issue\_id, ...)}\]

Arguments

- project: project where the issue should be posted
- title: title of the issue
- ...: further parameters passed to the API call, may contain description, assignee_id, milestone_id, labels, state_event (for edit_issue).
- issue_id: issue id (projectwide; for API v3 only you can use global iid when force_api_v3 is TRUE although this is not recommended!)
- api_version: a switch to force deprecated GitLab API v3 behavior that allows filtering by global iid. If 3 filtering happens by global iid, if false, it happens by projectwide ID. For API v4, this must be 4 (default)
- assignee_id: numeric id of users as returned in `/users/` API request

Value

Tibble with the created or remaining issues and descriptive variables.
Examples

```
## Not run:
# create an issue
new_issue_infos <- gl_create_issue(project = "<<your-project-id>>", "A simple issue")
new_issue_iid <- new_issue_infos$iid[1]
## close issue
gl_close_issue("<<your-project-id>>", new_issue_iid)
## reopen issue
gl_reopen_issue("<<your-project-id>>", new_issue_iid)
## edit its description
gl_edit_issue("<<your-project-id>>", new_issue_iid, description = "This is a test")
## assign it
gl_assign_issue("<<your-project-id>>", new_issue_iid, assignee_id = "<<user-id>>")
## unassign it
gl_unassign_issue("<<your-project-id>>", new_issue_iid)
## Delete issue as if it never existed
gl_delete_issue("<<your-project-id>>", new_issue_iid)
## End(Not run)
```

### gl_new_project

**Manage projects**

#### Description

Manage projects

#### Usage

```
gl_new_project(name, path, ...)
```

```
gl_edit_project(project, ...)
```

```
gl_delete_project(project)
```

#### Arguments

- **name**: Name of the new project. The name of the new project. Equals path if not provided.
- **path**: Path to the new project if name is not provided. Repository name for new project. Generated based on name if not provided (generated as lowercase with dashes).
- **...**: Passed on to `gitlab()` API call for "Create project"
- **project**: The ID or URL-encoded path of the project.

#### Details

You can use extra parameters as proposed in the GitLab API:

- **namespace_id**: Namespace for the new project (defaults to the current user’s namespace).
Value

A tibble with the project information. `gl_delete_project()` returns an empty tibble.

Examples

```r
## Not run:
set_gitlab_connection(
  gitlab_url = "https://gitlab.com",
  private_token = Sys.getenv("GITLAB_COM_TOKEN")
)
# Create new project
gl_new_project(name = "toto")
# Edit existing project
gl_edit_project(project = "<<your-project-id>>", default_branch = "main")
# Delete project
gl_delete_project(project = "<<your-project-id>>")
## End(Not run)
```

---

**gl_pipelines**

Access the GitLab CI builds

Description

List the jobs with `gl_jobs`, the pipelines with `gl_pipelines` or download the most recent artifacts archive with `gl_latest_build_artifact`. For every branch and job combination only the most recent artifacts archive is available. `gl_builds` is the equivalent for GitLab API v3.

Usage

```r
gl_pipelines(project, ...)

gl_jobs(project, ...)

gl_builds(project, api_version = 4, ...)

gl_latest_build_artifact(
  project,
  job,
  ref_name = get_main(),
  save_to_file = tempfile(fileext = ".zip"),
  ...)
```
**Arguments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>project</td>
<td>project name or id, required</td>
<td></td>
</tr>
<tr>
<td>api_version</td>
<td>Since <code>gl_builds</code> is no longer working for GitLab API v4, this must be set to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&quot;3&quot; in order to avoid deprecation warning and HTTP error. It currently default</td>
<td></td>
</tr>
<tr>
<td></td>
<td>to &quot;4&quot; with deprecation message.</td>
<td></td>
</tr>
<tr>
<td>job</td>
<td>Name of the job to get build artifacts from</td>
<td></td>
</tr>
<tr>
<td>ref_name</td>
<td>name of ref (i.e. branch, commit, tag)</td>
<td></td>
</tr>
<tr>
<td>save_to_file</td>
<td>either a path where to store .zip file or NULL if raw should be returned</td>
<td></td>
</tr>
</tbody>
</table>

**Value**

returns the file path if `save_to_file` is TRUE, or the archive as raw otherwise.

**Examples**

```r
## Not run:
# connect as a fixed user to a GitLab instance
set_github_connection(  
github_url = "https://github.com",
private_token = Sys.getenv("GITHUB_TOKEN"))

# Get pipelines and jobs information
gl_pipelines(project = "<<your-project-id>>")
gl_jobs(project = "<<your-project-id>>")
gl_latest_build_artifact(project = "<<your-project-id>>", job = "build")
## End(Not run)
```

**Description**

Prefixes the request location with "project/id" and automatically translates project names into ids

**Usage**

```
gl_proj_req(project, req, ...)
```

**Arguments**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>project</td>
<td>project name or id</td>
<td></td>
</tr>
<tr>
<td>req</td>
<td>character vector of request location</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td>passed on to <code>gl_get_project_id()</code></td>
<td></td>
</tr>
</tbody>
</table>
Value

A vector of character to be used as request for functions involving projects

Examples

```r
## Not run:
gl_proj_req("test_project"<<your-project-id>>, req = "merge_requests")

## End(Not run)
```

---

### gl_push_file

Upload, delete a file to a GitLab repository

Description

If the file already exists, it is updated/overwritten by default

Usage

```r
gl_push_file(
  project,
  file_path,
  content,
  commit_message,
  branch = get_main(),
  overwrite = TRUE,
  ...)
```

```r
gl_delete_file(project, file_path, commit_message, branch = get_main(), ...)
```

Arguments

- `project` : Project name or id
- `file_path` : path where to store file in gl_repository. If in subdirectory, the parent directory should exist.
- `content` : Character of length 1. File content (text)
- `commit_message` : Message to use for commit with new/updated file
- `branch` : name of branch where to append newly generated commit with new/updated file
- `overwrite` : whether to overwrite files that already exist
- `...` : passed on to `gitlab()`

Value

returns a tibble with changed branch and path (0 rows if nothing was changed, since overwrite is FALSE)
Examples

```r
## Not run:
# Create fake dataset
tmpfile <- tempfile(fileext = ".csv")
write.csv(mtcars, file = tempfile)
# Push content to repository with a commit
gl_push_file(
  project = <<your-project-id>>,
  file_path = "test_data.csv",
  content = paste(readLines(tmpfile), collapse = "\n"),
  commit_message = "New test data")

## End(Not run)
```

---

**Description**

Access to repository files in GitLab

For `gl_file_exists` dots are passed on to `gl_list_files()` and GitLab API call

Get a file from a GitLab repository

**Usage**

```r
gl_repository(project, req = c("tree"), ref = get_main(), ...)
gl_list_files(project, ref = get_main(), ...)
gl_file_exists(project, file_path, ref, ...)
gl_get_file(
  project,
  file_path,
  ref = get_main(),
  to_char = TRUE,
  api_version = 4,
  ...
)
```

**Arguments**

- `project` : name or id of project (not repository!)
- `req` : request to perform on repository (everything after `/repository/` in GitLab API, as vector or part of URL)
- `ref` : name of ref (commit branch or tag)
... passed on to `gitlab()` API call

- `file_path`: path to file
- `to_char`: flag if output should be converted to char; otherwise it is of class raw
- `api_version`: a switch to force deprecated GitLab API v3 behavior. See details section "API version" of `gl_connection()`

**Value**

Tibble of files available in the branch with descriptive variables.

**Examples**

```r
## Not run:
# Set GitLab connection for examples
set_gitlab_connection(
  gitlab_url = "https://gitlab.com",
  private_token = Sys.getenv("GITLAB_COM_TOKEN"))

# Access repository
# _All files
gl_repository(project = <<your-project-id>>)
# _All contributors
gl_repository(project = <<your-project-id>>, "contributors")
# _List files
gl_list_files(project = <<your-project-id>>)
# _Get content of one file
gl_get_file(project = <<your-project-id>>, file_path = "README.md")
# _Test if file exists
gl_file_exists(project = <<your-project-id>>, file_path = "README.md", ref = "main")
## End(Not run)
```

---

**gl_to_issue_id**

*Translate projectwide issue id to global GitLab API issue id*

**Description**

This function is only intended to be used with GitLab API v3. With v4, the global iid is no longer functional.

**Usage**

```r
gl_to_issue_id(project, issue_id, api_version = 3, ...)
```
set_gitlab_connection

Arguments

project       project name or id
issue_id      projectwide issue id (as seen by e.g. GitLab website users)
api_version   Since this function is no longer necessary for GitLab API v4, this must be set to
              3 in order to avoid deprecation warning and HTTP error.
...            passed on to gitlab()

Value

Global GitLab API issue id

Examples

## Not run:
gl_to_issue_id(project = "<my-project>", issue_id = 1, api_version = 3)
## End(Not run)

set_gitlab_connection  Get/set a GitLab connection for all calls

Description

This sets the default value of gitlab_con in a call to gitlab()

Usage

set_gitlab_connection(gitlab_con = NULL,...)

get_gitlab_connection()

unset_gitlab_connection()

Arguments

gitlab_con   A function used for GitLab API calls, such as gitlab() or as returned by
             gl_connection().
...           if gitlab_con is NULL, a new connection is created used the parameters is ...
             using gl_connection()

Value

Used for side effects. Set or unset global connection settings.
Examples

```r
## Not run:
set_gitlab_connection("https://gitlab.com", private_token = Sys.getenv("GITLAB_COM_TOKEN"))
## End(Not run)
```

| use_gitlab_ci | Add .gitlab-ci.yml file in your current project from template |

Description

Add .gitlab-ci.yml file in your current project from template

Usage

```r
use_gitlab_ci(
  image = "rocker/verse:latest",
  repo_name = "https://packagewriter.rstudio.com/all/__linux__/focal/latest",
  url = "https://gitlab.com",
  path = ".gitlab-ci.yml",
  overwrite = TRUE,
  add_to_Rbuildignore = TRUE,
  type = "check-coverage-pkgdown"
)
```

Arguments

- `image`: Docker image to use in GitLab CI. If NULL, not specified!
- `repo_name`: REPO_NAME environment variable for R CRAN mirror used
- `url`: url of the GitLab instance
- `path`: destination path for writing GitLab CI yml file
- `overwrite`: whether to overwrite existing GitLab CI yml file
- `add_to_Rbuildignore`: add CI yml file (from `path`) to .Rbuildignore?
- `type`: type of the CI template to use

Details

Types available are:
- "check-coverage-pkgdown": Check package along with Code coverage with covr and pkgdown site on GitLab Pages.
- "check-coverage-pkgdown-renv": Check package built in a fixed renv state along with Code coverage with covr and pkgdown site on GitLab Pages.
- "bookdown": Build bookdown HTML and PDF site on GitLab Pages.
- "bookdown-production": Build bookdown HTML and PDF site on GitLab Pages. Where default page is for branch named 'production' and "dev/" sub-folder is for 'main' (or 'master') branch.
use_gitlab_ci

Value

Used for side effects. Creates a .gitlab-ci.yml file in your directory.

Examples

```r
# Create in another directory
use_gitlab_ci(image = "rocker/verse:latest", path = tempfile(fileext = ".yml"))

## Not run:
# Create in your current project with template for packages checking
use_gitlab_ci(image = "rocker/verse:latest", type = "check-coverage-pkgdown")

## End(Not run)
```
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