

The REST API is now versioned. For more information, see ["About API versioning."](#)

# Repository contents

Use the REST API to create, modify, and delete Base64 encoded content in a repository.

## About repository contents

To request the raw format or rendered HTML (when supported), use custom media types for repository contents.

### Custom media types for repository contents

[READMEs](#), [files](#), and [symlinks](#) support the following custom media types:

```
application/vnd.github.raw
application/vnd.github.html
```

Use the `.raw` media type to retrieve the contents of the file.

For markup files such as Markdown or AsciiDoc, you can retrieve the rendered HTML using the `.html` media type. Markup languages are rendered to HTML using our open-source [Markup library](#).

[All objects](#) support the following custom media type:

```
application/vnd.github.object
```

Use the `object` media type parameter to retrieve the contents in a consistent object format regardless of the content type. For example, instead of an array of objects for a directory, the response will be an object with an `entries` attribute containing the array of objects.

For more information about the use of media types in the API, see ["Media types."](#)

## Get repository content

Works with [GitHub Apps](#)

Gets the contents of a file or directory in a repository. Specify the file path or directory in `:path`. If you omit `:path`, you will receive the contents of the repository's root directory. See the description below regarding what the API response includes for directories.

Files and symlinks support [a custom media type](#) for retrieving the raw content or rendered HTML (when supported). All content types support [a custom media type](#) to ensure the content is returned in a consistent object format.

### Notes:

- To get a repository's contents recursively, you can [recursively get the tree](#).
- This API has an upper limit of 1,000 files for a directory. If you need to retrieve more files, use the [Git Trees API](#).
- Download URLs expire and are meant to be used just once. To ensure the download URL does not expire, please use the contents API to obtain a fresh download URL for each download. Size limits: If the requested file's size is:
  - 1 MB or smaller: All features of this endpoint are supported.
  - Between 1-100 MB: Only the `raw` or `object` [custom media types](#) are supported. Both will work as normal, except that when using the `object` media type, the `content` field will be an empty string and the `encoding` field will be `"none"`. To get the contents of these larger files, use the `raw` media type.
  - Greater than 100 MB: This endpoint is not supported.

If the content is a directory: The response will be an array of objects, one object for each item in the directory. When listing the contents of a directory, submodules have their "type" specified as "file". Logically, the value *should* be "submodule". This behavior exists in API v3 [for backwards compatibility purposes](#). In the next major version of the API, the type will be returned as "submodule".

If the content is a symlink: If the requested `:path` points to a symlink, and the symlink's target is a normal file in the repository, then the API responds with the content of the file (in the format shown in the example. Otherwise, the API responds with an object describing the symlink itself.

If the content is a submodule: The `submodule_git_url` identifies the location of the submodule repository, and the `sha` identifies a specific commit within the submodule repository. Git uses the given URL when cloning the submodule repository, and checks out the submodule at that specific commit.

If the submodule repository is not hosted on github.com, the Git URLs ( `git_url` and `_links["git"]` ) and the github.com URLs ( `html_url` and `_links["html"]` ) will have null values.

### Parameters for "Get repository content"

#### Headers

**accept** string  
Setting to `application/vnd.github+json` is recommended.

#### Path parameters

**owner** string **Required**  
The account owner of the repository. The name is not case sensitive.

**repo** string **Required**  
The name of the repository without the `.git` extension. The name is not case sensitive.

**path** string **Required**

path parameter

### Query parameters

**ref** string

The name of the commit/branch/tag. Default: the repository's default branch.

### HTTP response status codes for "Get repository content"

Status code	Description
200	OK
302	Found
403	Forbidden
404	Resource not found

## Code samples for "Get repository content"

Example 1: Status Code 200 (application/vnd.github.object) 

**GET** /repos/{owner}/{repo}/contents/{path}

cURL JavaScript GitHub CLI

```
curl -L \ -H "Accept: application/vnd.github+json" \ -H "Authorization: Bearer <YOUR-TOKEN>" \ -H "X-GitHub-API-Version: 2022-11-28" \ http(s)://HOSTNAME/api/v3/repos/OWNER/REPO/contents/PATH
```

### Response if content is a file

### Example response

### Response schema

Status: 200

```
"type": "file", "encoding": "base64", "size": 5362, "name": "README.md", "path": "README.md", "content":
  "IyB2b2dhIEVmsga4gc3Vzc3Jlcm9EIEZlZWdGa0K0ndhc3pmbC9IdFVc\\nZnJlZS8mUgdG8ybyBjaG9vY2UgaXQgdGhlIGFwcGwYV2UgaXQmY29lcGxldG9uCGpBHDhYlBhcHAgdGhhcCBs\\n\\nZWfKcyB
  \"sha\": \"3d2lec3a331ae1087a91c368710b99387d012c1\", \"url\": \"https://HOSTNAME/repos/octokit/octokit.ruby.gist\", \"git_url\": \"https://HOSTNAME/repos/octokit/octokit.ruby.gist/blobs/3d2lec3a331ae1087a91c368710b99387d012c1\"}
```

### Create or update file contents

- ✔ Works with [GitHub Apps](#)

Creates a new file or replaces an existing file in a repository. You must authenticate using an access token with the `repo` scope to use this endpoint. If you want to modify files in the `.github/workflows` directory, you must authenticate using an access token with the `workflow` scope.

**Note:** If you use this endpoint and the "[Delete a file](#)" endpoint in parallel, the concurrent requests will conflict and you will receive errors. You must use these endpoints serially instead.

### Parameters for "Create or update file contents"

## Headers

**accept** string

Setting to `application/vnd.github+json` is recommended.

### Path parameters

**owner** string Required

The account owner of the repository. The name is not case sensitive.

**repo** string Required

The name of the repository without the `.git` extension. The name is not case sensitive.

**path** string Required

path parameter

### Body parameters

**message** string Required

The commit message.

**content** string Required

The new file content, using Base64 encoding.

**sha** string

**Required if you are updating a file.** The blob SHA of the file being replaced.

**branch** string

The branch name. Default: the repository's default branch.

**committer** object

The person that committed the file. Default: the authenticated user.

► Properties of **committer**

**author** object

The author of the file. Default: The **committer** or the authenticated user if you omit **committer**.

► Properties of **author**

**HTTP response status codes for "Create or update file contents"**

Status code	Description
200	OK
201	Created
404	Resource not found
409	Conflict
422	Validation failed, or the endpoint has been spammed.

**Code samples for "Create or update file contents"**

Example for creating a file ◀

PUT/repos/{owner}/{repo}/contents/{path}

cURL

JavaScript

```
curl -L \ -X PUT \ -H "Accept: application/vnd.github+json" \ -H "Authorization: Bearer <YOUR-TOKEN>" \ -H "X-GitHub-Api-Version: 2022-11-28" \
http(s)://HOSTNAME/api/v3/repos/OWNER/REPO/contents/PATH \ -d '{"message": "my commit message", "committer": {"name": "Monalisa Octocat", "email": "octocat@github.com"}, "content": "bXkgbmV3IGZpbGUyZ9udGVudHM="}'
```

**Response**

Example response

Response schema

Status: 201

```
{ "content": { "name": "hello.txt", "path": "notes/hello.txt", "sha": "95b966a1c166bd92f8ae7d1c313e738c731dfc3", "size": 9, "url": "https://HOSTNAME/repos/octocat/Hello-World/contents/notes/hello.txt", "html_url": "https://github.com/octocat/Hello-World/blob/master/notes/hello.txt", "git_url": "https://HOSTNAME/repos/octocat/Hello-World/git/blobs/95b966a1c166bd92f8ae7d1c313e738c731dfc3", "download_url": "https://raw.githubusercontent.com/octocat/HelloWorld/master/notes/hello.txt", "type": "file", "_links": { "self": "https://HOSTNAME/repos/octocat/Hello-World/contents/notes/hello.txt", "git": "https://HOSTNAME/repos/octocat/Hello-World/git/blobs/95b966a1c166bd92f8ae7d1c313e738c731dfc3", "html": "https://github.com/octocat/Hello-World/blob/master/notes/hello.txt" } }, "commit": { "sha": "7638417db6d59f3c431d3e1f261cc637155684cd", "node_id":
```

**Delete a file**

✔ Works with [GitHub Apps](#)

Deletes a file in a repository.

You can provide an additional **committer** parameter, which is an object containing information about the committer. Or, you can provide an **author** parameter, which is an object containing information about the author.

The **author** section is optional and is filled in with the **committer** information if omitted. If the **committer** information is omitted, the authenticated user's information is used.

You must provide values for both **name** and **email**, whether you choose to use **author** or **committer**. Otherwise, you'll receive a **422** status code.

**Note:** If you use this endpoint and the ["Create or update file contents"](#) endpoint in parallel, the concurrent requests will conflict and you will receive errors. You must use these endpoints serially instead.

**Parameters for "Delete a file"**

**Headers**

**accept** string

Setting to **application/vnd.github+json** is recommended.

**Path parameters**

**owner** string **Required**

The account owner of the repository. The name is not case sensitive.

**repo** string **Required**

The name of the repository without the `.git` extension. The name is not case sensitive.

**path** string **Required**  
path parameter

Body parameters

**message** string **Required**  
The commit message.

**sha** string **Required**  
The blob SHA of the file being deleted.

**branch** string  
The branch name. Default: the repository's default branch

**committer** object  
object containing information about the committer.

► Properties of **committer**

**author** object  
object containing information about the author.

► Properties of **author**

HTTP response status codes for "Delete a file"

Status code	Description
200	OK
404	Resource not found
409	Conflict
422	Validation failed, or the endpoint has been spammed.
503	Service unavailable

Code samples for "Delete a file"

**DELETE** /repos/{owner}/{repo}/contents/{path}

cURLJavaScript

```
curl -L \ -X DELETE \ -H "Accept: application/vnd.github+json" \ -H "Authorization: Bearer <YOUR-TOKEN>" \ -H "X-GitHub-API-Version: 2022-11-28" \
http(s)://HOSTNAME/api/v3/repos/OWNER/REPO/contents/PATH \ -d '{"message": "my commit message", "committer": {"name": "Monalisa Octocat", "email": "octocat@github.com"}, "sha": "329688480d39049927147c162b9d2deaf885005f"}'
```

Response

Example responseResponse schema

Status: 200

```
{ "content": null, "commit": { "sha": "7638417db6d59f3c431d3e1f261cc637155684cd", "node_id": "MDY6Q29tbWl0NzYzODQxN2RlNmQ1OWYzYzQzMWQzZTFmMjYxY2M2MzcxNTU2ODRjZA==", "url": "https://HOSTNAME/repos/octocat/Hello-World/git/commits/7638417db6d59f3c431d3e1f261cc637155684cd", "html_url": "https://github.com/octocat/Hello-World/git/commit/7638417db6d59f3c431d3e1f261cc637155684cd", "author": { "date": "2014-11-07T22:01:45Z", "name": "Monalisa Octocat", "email": "octocat@github.com" }, "committer": { "date": "2014-11-07T22:01:45Z", "name": "Monalisa Octocat", "email": "octocat@github.com" }, "message": "my commit message", "tree": { "url": "https://HOSTNAME/repos/octocat/Hello-World/git/trees/691272480426f78a0138979dd3ce63b77f706feb", "sha": "691272480426f78a0138979dd3ce63b77f706feb" }, "parents": [ { "url": "https://HOSTNAME/repos/octocat/Hello-World/git/commits/1acc419d4d6a9ce985db7be48c6349a0475975b5", "html_url": "https://github.com/octocat/Hello-
```

Get a repository README

✔ Works with [GitHub Apps](#)

Gets the preferred README for a repository.

READMEs support [custom media types](#) for retrieving the raw content or rendered HTML.

Parameters for "Get a repository README"

Headers

**accept** string  
Setting to `application/vnd.github+json` is recommended.

Path parameters

**owner** string **Required**  
The account owner of the repository. The name is not case sensitive.

`repo` string **Required**

The name of the repository without the `.git` extension. The name is not case sensitive.

Query parameters

`ref` string

The name of the commit/branch/tag. Default: the repository's default branch.

HTTP response status codes for "Get a repository README"

Status code	Description
200	OK
404	Resource not found
422	Validation failed, or the endpoint has been spammed.

Code samples for "Get a repository README"

GET

/repos/{owner}/{repo}/readme

cURL

JavaScript

GitHub CLI

```
curl -L \ -H "Accept: application/vnd.github+json" \ -H "Authorization: Bearer <YOUR-TOKEN>" \ -H "X-GitHub-Api-Version: 2022-11-28" \
http(s)://HOSTNAME/api/v3/repos/OWNER/REPO/readme
```

Response

Example response

Response schema

Status: 200

```
{ "type": "file", "encoding": "base64", "size": 5362, "name": "README.md", "path": "README.md", "content": "encoded content ...", "sha":
"3d21ec53a331a6f037a91c368710b99387d012c1", "url": "https://HOSTNAME/repos/octokit/octokit.rb/contents/README.md", "git_url":
"https://HOSTNAME/repos/octokit/octokit.rb/git/blobs/3d21ec53a331a6f037a91c368710b99387d012c1", "html_url": "https://github.com/octokit/octokit.rb/blob/master/README.md",
"download_url": "https://raw.githubusercontent.com/octokit/octokit.rb/master/README.md", "links": { "git":
"https://HOSTNAME/repos/octokit/octokit.rb/git/blobs/3d21ec53a331a6f037a91c368710b99387d012c1", "self": "https://HOSTNAME/repos/octokit/octokit.rb/contents/README.md",
"html": "https://github.com/octokit/octokit.rb/blob/master/README.md" } }
```

Get a repository README for a directory

✔ Works with [GitHub Apps](#)

Gets the README from a repository directory.

READMEs support [custom media types](#) for retrieving the raw content or rendered HTML.

Parameters for "Get a repository README for a directory"

Headers

`accept` string

Setting to `application/vnd.github+json` is recommended.

Path parameters

`owner` string **Required**

The account owner of the repository. The name is not case sensitive.

`repo` string **Required**

The name of the repository without the `.git` extension. The name is not case sensitive.

`dir` string **Required**

The alternate path to look for a README file

Query parameters

`ref` string

The name of the commit/branch/tag. Default: the repository's default branch.

HTTP response status codes for "Get a repository README for a directory"

Status code	Description
200	OK
404	Resource not found
422	Validation failed, or the endpoint has been spammed.

Code samples for "Get a repository README for a directory"

GET

/repos/{owner}/{repo}/readme/{dir}

cURL

JavaScript

GitHub CLI

curl -L \ -H "Accept: application/vnd.github+json" \ -H "Authorization: Bearer <YOUR-TOKEN>" \ -H "X-GitHub-API-Version: 2022-11-28" \ http(s)://HOSTNAME/api/v3/repos/OWNER/REPO/readme/DIR

Response

Example response

Response schema

Status: 200

{ "type": "file", "encoding": "base64", "size": 5362, "name": "README.md", "path": "README.md", "content": "encoded content ...", "sha": "3d21ec53a331a6f037a91c368710b99387d012c1", "url": "https://HOSTNAME/repos/octokit/octokit.rb/contents/README.md", "git\_url": "https://HOSTNAME/repos/octokit/octokit.rb/git/blobs/3d21ec53a331a6f037a91c368710b99387d012c1", "html\_url": "https://github.com/octokit/octokit.rb/blob/master/README.md", "download\_url": "https://raw.githubusercontent.com/octokit/octokit.rb/master/README.md", "\_links": { "git": "https://HOSTNAME/repos/octokit/octokit.rb/git/blobs/3d21ec53a331a6f037a91c368710b99387d012c1", "self": "https://HOSTNAME/repos/octokit/octokit.rb/contents/README.md", "html": "https://github.com/octokit/octokit.rb/blob/master/README.md" } }

Download a repository archive (tar)

Works with [GitHub Apps](#)

Gets a redirect URL to download a tar archive for a repository. If you omit `:ref`, the repository’s default branch (usually `main`) will be used. Please make sure your HTTP framework is configured to follow redirects or you will need to use the `Location` header to make a second `GET` request. **Note:** For private repositories, these links are temporary and expire after five minutes.

Parameters for "Download a repository archive (tar)"

Headers

`accept` string  
Setting to `application/vnd.github+json` is recommended.

Path parameters

`owner` string **Required**  
The account owner of the repository. The name is not case sensitive.

`repo` string **Required**  
The name of the repository without the `.git` extension. The name is not case sensitive.

`ref` string **Required**

HTTP response status codes for "Download a repository archive (tar)"

Status code	Description
302	Found

Code samples for "Download a repository archive (tar)"

GET

/repos/{owner}/{repo}/tarball/{ref}

cURL

JavaScript

GitHub CLI

curl -L \ -H "Accept: application/vnd.github+json" \ -H "Authorization: Bearer <YOUR-TOKEN>" \ -H "X-GitHub-API-Version: 2022-11-28" \ http(s)://HOSTNAME/api/v3/repos/OWNER/REPO/tarball/REF

Response

Status: 302

Download a repository archive (zip)

Works with [GitHub Apps](#)

Gets a redirect URL to download a zip archive for a repository. If you omit `:ref`, the repository’s default branch (usually `main`) will be used. Please make sure your HTTP framework is configured to follow redirects or you will need to use the `Location` header to make a second `GET` request.

**Note:** For private repositories, these links are temporary and expire after five minutes. If the repository is empty, you will receive a 404 when you follow the redirect.

Parameters for "Download a repository archive (zip)"

Headers

**accept** string  
Setting to `application/vnd.github+json` is recommended.

Path parameters

**owner** string **Required**  
The account owner of the repository. The name is not case sensitive.

**repo** string **Required**  
The name of the repository without the `.git` extension. The name is not case sensitive.

**ref** string **Required**

HTTP response status codes for "Download a repository archive (zip)"

Status code	Description
302	Found

Code samples for "Download a repository archive (zip)"

GET

`/repos/{owner}/{repo}/zipball/{ref}`

cURL

JavaScript

GitHub CLI

```
curl -L \ -H "Accept: application/vnd.github+json" \ -H "Authorization: Bearer <YOUR-TOKEN>" \ -H "X-GitHub-Api-Version: 2022-11-28" \
http(s)://HOSTNAME/api/v3/repos/OWNER/REPO/zipball/REF
```

Response

Status: 302

Legal