



Creating a personal access token

Free, Pro, & Team ▼

You should create a personal access token to use in place of a password with the command line or with the API.

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Note: If you use GitHub CLI to authenticate to GitHub on the command line, you can skip generating a personal access token and authenticate via the web browser instead. For more information about authenticating with GitHub CLI, see [gh auth login](#).

Personal access tokens (PATs) are an alternative to using passwords for authentication to GitHub when using the [GitHub API](#) or the [command line](#).

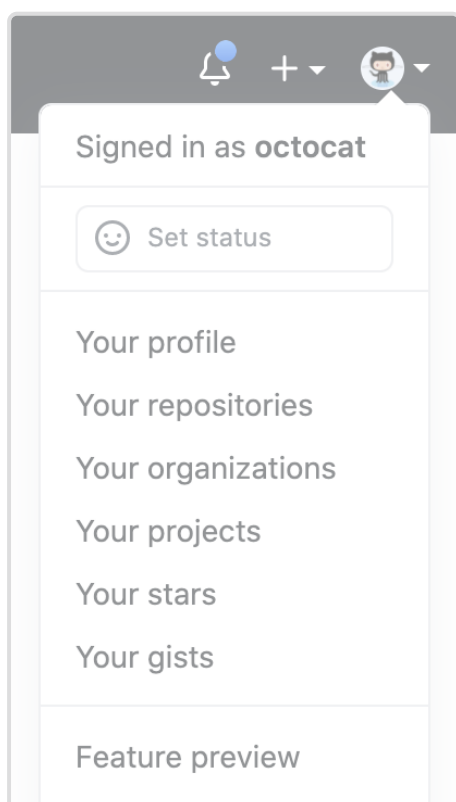
If you want to use a PAT to access resources owned by an organization that uses SAML SSO, you must authorize the PAT. For more information, see "[About authentication with SAML single sign-on](#)" and "[Authorizing a personal access token for use with SAML single sign-on](#)."

As a security precaution, GitHub automatically removes personal access tokens that haven't been used in a year. To provide additional security, we highly recommend adding an expiration to your personal access tokens.

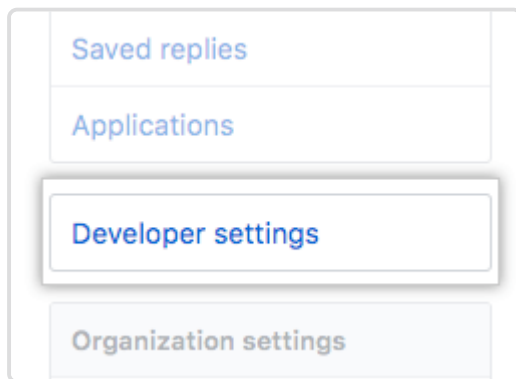
A token with no assigned scopes can only access public information. To use your token to access repositories from the command line, select `repo`. For more information, see "[Available scopes](#)".

Creating a token

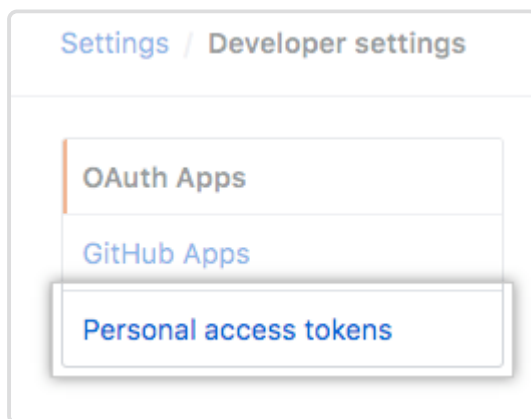
- 1 [Verify your email address](#), if it hasn't been verified yet.
- 2 In the upper-right corner of any page, click your profile photo, then click **Settings**.



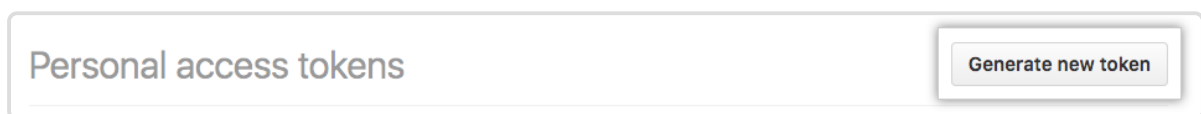
- 3 In the left sidebar, click **Developer settings**.



- 4 In the left sidebar, click **Personal access tokens**.



- 5 Click **Generate new token**.



- 6 Give your token a descriptive name.

Note

What's this token for?



- 8 Select the scopes, or permissions, you'd like to grant this token. To use your token to access repositories from the command line, select **repo**.

<input checked="" type="checkbox"/> repo	Full control of private repositories
<input type="checkbox"/> repo:status	Access commit status
<input type="checkbox"/> repo_deployment	Access deployment status
<input type="checkbox"/> public_repo	Access public repositories
<input type="checkbox"/> admin:org	Full control of orgs and teams
<input type="checkbox"/> write:org	Read and write org and team membership
<input type="checkbox"/> read:org	Read org and team membership
<input type="checkbox"/> admin:public_key	Full control of user public keys
<input type="checkbox"/> write:public_key	Write user public keys
<input type="checkbox"/> read:public_key	Read user public keys
<input type="checkbox"/> admin:repo_hook	Full control of repository hooks
<input type="checkbox"/> write:repo_hook	Write repository hooks
<input type="checkbox"/> read:repo_hook	Read repository hooks
<input type="checkbox"/> admin:org_hook	Full control of organization hooks
<input type="checkbox"/> gist	Create gists
<input type="checkbox"/> notifications	Access notifications
<input type="checkbox"/> user	Update all user data
<input type="checkbox"/> user:email	Access user email addresses (read-only)
<input type="checkbox"/> user:follow	Follow and unfollow users
<input type="checkbox"/> delete_repo	Delete repositories

- 9 Click **Generate token**.

<input type="checkbox"/> write:pgp_key	Write user pgp keys
<input type="checkbox"/> read:pgp_key	Read user pgp keys
<input type="button" value="Generate token"/>	<input type="button" value="Cancel"/>



- 10 To use your token to authenticate to an organization that uses SAML SSO, [authorize the token for use with a SAML single-sign-on organization](#).

Using a token on the command line

Once you have a token, you can enter it instead of your password when performing Git operations over HTTPS.

For example, on the command line you would enter the following:

```
$ git clone https://github.com/username/repo.git
Username: your_username
Password: your_token
```

Personal access tokens can only be used for HTTPS Git operations. If your repository uses an SSH remote URL, you will need to [switch the remote from SSH to HTTPS](#).

If you are not prompted for your username and password, your credentials may be cached on your computer. You can [update your credentials in the Keychain](#) to replace your old password with the token.

Instead of manually entering your PAT for every HTTPS Git operation, you can cache your PAT with a Git client. Git will temporarily store your credentials in memory until an expiry interval has passed. You can also store the token in a plain text file that Git can read before every request. For more information, see "[Caching your GitHub credentials in Git](#)."



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