

Managing code scanning alerts for your repository

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From the security view, you can view, fix, or dismiss alerts for potential vulnerabilities or errors in your project's code.

Who can use this feature

If you have write permission to a repository you can manage code scanning alerts for that repository.


Code scanning is available for organization-owned repositories in GitHub Enterprise Server. This feature requires a license for GitHub Advanced Security. For more information, see "[About GitHub Advanced Security](#)."

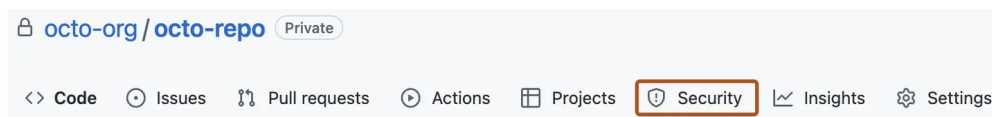
Viewing the alerts for a repository

Anyone with read permission for a repository can see code scanning annotations on pull requests. For more information, see "[Triaging code scanning alerts in pull requests](#)."

You need write permission to view a summary of all the alerts for a repository on the **Security** tab.

By default, the code scanning alerts page is filtered to show alerts for the default branch of the repository only.

- 1 On your GitHub Enterprise Server instance, navigate to the main page of the repository.
- 2 Under the repository name, click  **Security**. If you cannot see the "Security" tab, select the ... dropdown menu, and then click **Security**.



- 3 In the left sidebar, click **Code scanning alerts**.

- 4 Optionally, use the free text search box or the drop-down menus to filter alerts. For example, you can filter by the tool that was used to identify alerts.
- 5 Under "Code scanning," click the alert you'd like to explore to display the detailed alert page. The status and details on the alert page only reflect the state of the alert on the default branch of the repository, even if the alert exists in other branches. You can see the status of the alert on non-default branches in the **Affected branches** section on the right-hand side of the alert page. If an alert doesn't exist in the default branch, the status of the alert will display as "in pull request" or "in branch" and will be colored grey.
- 6 Optionally, if the alert highlights a problem with data flow, click **Show paths** to display the path from the data source to the sink where it's used.

Database query built from user-controlled sources

Open in main 15 hours ago

models/models.go:76

```
73 // the query, you should be using a parameterized query.
74 func ReadQuery(r string) ([]Book, error) {
75     // Fix: rows, err := DB.Query("SELECT * FROM books WHERE read = ?", r)
76     rows, err := DB.Query(fmt.Sprintf("SELECT * FROM books WHERE read = '%s'", r))

This query depends on a user-provided value.

CodeQL Show paths

77     if err != nil {
78         return nil, err
79     }
```

Tool	Rule ID	Query
CodeQL	go/sql-injection	View source

If a database query (such as an SQL or NoSQL query) is built from user-provided data without sufficient sanitization, a malicious user may be able to run commands that exfiltrate, tamper with, or destroy data stored in the database.

[Show more](#)

Severity

High

Affected branches

main

Tags

security

Weaknesses

CWE-89

- 7 Alerts from CodeQL analysis include a description of the problem. Click **Show more** for guidance on how to fix your code.

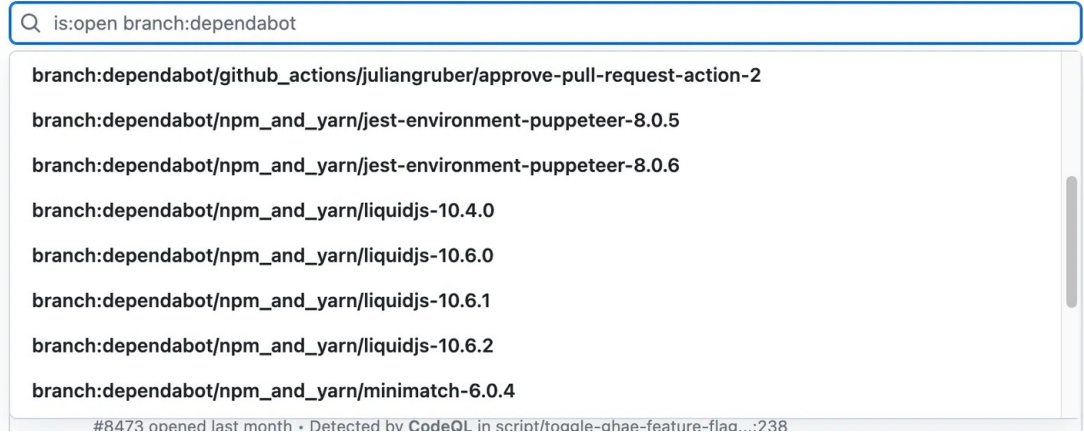
For more information, see ["About code scanning alerts."](#)

Note: You can see information about when code scanning analysis last ran on the tool status page. For more information, see ["About the tool status page for code scanning."](#)

Filtering code scanning alerts [↗](#)

You can filter the alerts shown in the code scanning alerts view. This is useful if there are many alerts as you can focus on a particular type of alert. There are some predefined filters and a range of keywords that you can use to refine the list of alerts displayed.

When you select a keyword from either a drop-down list, or as you enter a keyword in the search field, only values with results are shown. This makes it easier to avoid setting filters that find no results.



If you enter multiple filters, the view will show alerts matching *all* these filters. For example, `is:closed severity:high branch:main` will only display closed high-severity alerts that are present on the `main` branch. The exception is filters relating to refs (`ref` , `branch` and `pr`): `is:open branch:main branch:next` will show you open alerts from both the `main` branch and the `next` branch.

Please note that if you have filtered for alerts on a non-default branch, but the same alerts exist on the default branch, the alert page for any given alert will still only reflect the alert's status on the default branch, even if that status conflicts with the status on a non-default branch. For example, an alert that appears in the "Open" list in the summary of alerts for `branch-x` could show a status of "Fixed" on the alert page, if the alert is already fixed on the default branch. You can view the status of the alert for the branch you filtered on in the **Affected branches** section on the right side of the alert page.

You can prefix the `tag` filter with `-` to exclude results with that tag. For example, `-tag:style` only shows alerts that do not have the `style` tag.

Restricting results to application code only [🔗](#)

You can use the "Only alerts in application code" filter or `autofilter:true` keyword and value to restrict results to alerts in application code. For more information about the types of code that are automatically labeled as not application code, see "[About code scanning alerts](#)."

Searching code scanning alerts [🔗](#)

You can search the list of alerts. This is useful if there is a large number of alerts in your repository, or if you don't know the exact name for an alert for example. GitHub Enterprise Server performs the free text search across:

- The name of the alert
- The alert details (this also includes the information hidden from view by default in the **Show more** collapsible section)

Supported search	Syntax example	Results
Single word search	<code>injection</code>	Returns all the alerts containing the word <code>injection</code>
Multiple word search	<code>sql injection</code>	Returns all the alerts containing <code>sql</code> or <code>injection</code>
Exact match search (use double quotes)	<code>"sql injection"</code>	Returns all the alerts containing the exact phrase <code>sql injection</code>
OR search	<code>sql OR injection</code>	Returns all the alerts

containing `sql` or `injection`


AND search

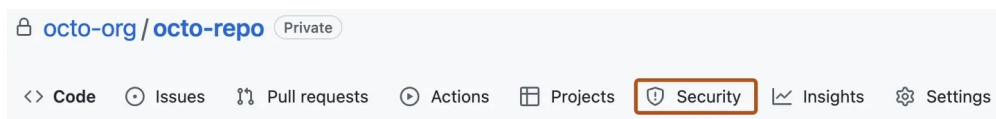
`sql AND injection`

Returns all the alerts containing both words `sql` and `injection`

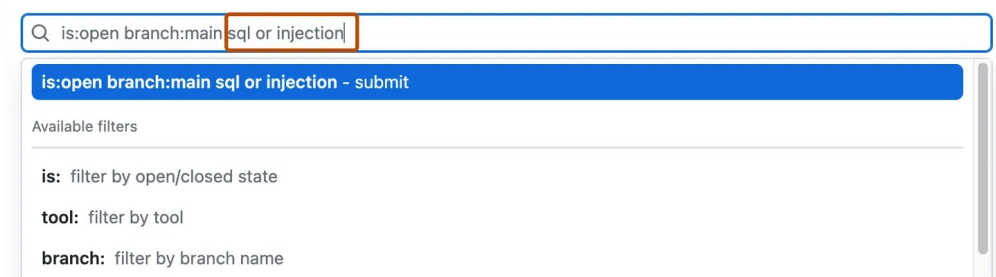
Tips:

- The multiple word search is equivalent to an OR search.
- The AND search will return results where the search terms are found *anywhere*, in any order in the alert name or details.

- 1 On your GitHub Enterprise Server instance, navigate to the main page of the repository.
- 2 Under the repository name, click  **Security**. If you cannot see the "Security" tab, select the ... dropdown menu, and then click **Security**.



- 3 In the left sidebar, click **Code scanning alerts**.
- 4 To the right of the **Filters** drop-down menus, type the keywords to search for in the free text search box.



- 5 Press `return`. The alert listing will contain the open code scanning alerts matching your search criteria.

Fixing an alert

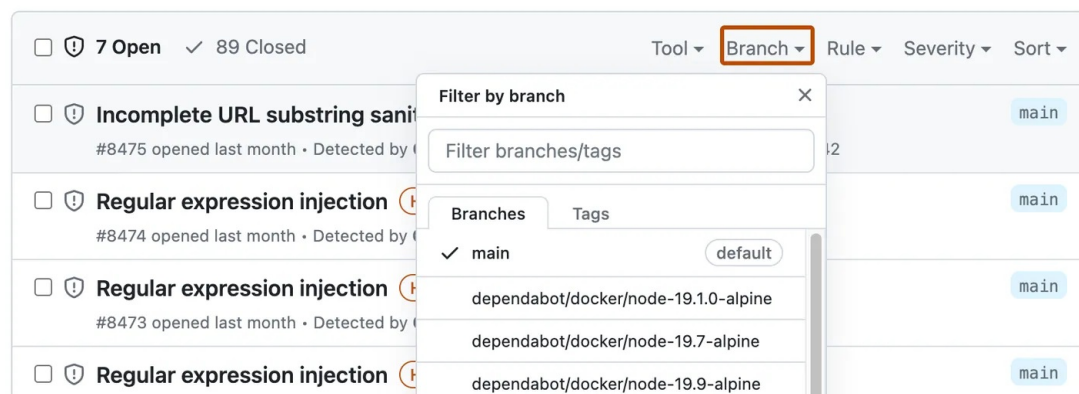
Anyone with write permission for a repository can fix an alert by committing a correction to the code. If the repository has code scanning scheduled to run on pull requests, it's best to raise a pull request with your correction. This will trigger code scanning analysis of the changes and test that your fix doesn't introduce any new problems. For more information, see "[Customizing your advanced setup for code scanning](#)" and "[Triaging code scanning alerts in pull requests](#)."

If you have write permission for a repository, you can view fixed alerts by viewing the summary of alerts and clicking **Closed**. For more information, see "[Viewing the alerts for a repository](#)." The "Closed" list shows fixed alerts and alerts that users have dismissed.

You can use the free text search or the filters to display a subset of alerts and then in turn mark all matching alerts as closed.

Alerts may be fixed in one branch but not in another. You can use the "Branch" filter, on

the summary of alerts, to check whether an alert is fixed in a particular branch.



Please note that if you have filtered for alerts on a non-default branch, but the same alerts exist on the default branch, the alert page for any given alert will still only reflect the alert's status on the default branch, even if that status conflicts with the status on a non-default branch. For example, an alert that appears in the "Open" list in the summary of alerts for `branch-x` could show a status of "Fixed" on the alert page, if the alert is already fixed on the default branch. You can view the status of the alert for the branch you filtered on in the **Affected branches** section on the right side of the alert page.

Note: If you run code scanning using multiple configurations, the same alert will sometimes be generated by more than one configuration. Unless you run all configurations regularly, you may see alerts that are fixed in one configuration but not in another. These stale configurations and alerts can be removed from a branch. For more information, see "[Removing stale configurations and alerts from a branch.](#)"

Dismissing alerts


There are two ways of closing an alert. You can fix the problem in the code, or you can dismiss the alert.

Dismissing an alert is a way of closing an alert that you don't think needs to be fixed. For example, an error in code that's used only for testing, or when the effort of fixing the error is greater than the potential benefit of improving the code. You can dismiss alerts from code scanning annotations in code, or from the summary list within the **Security** tab.

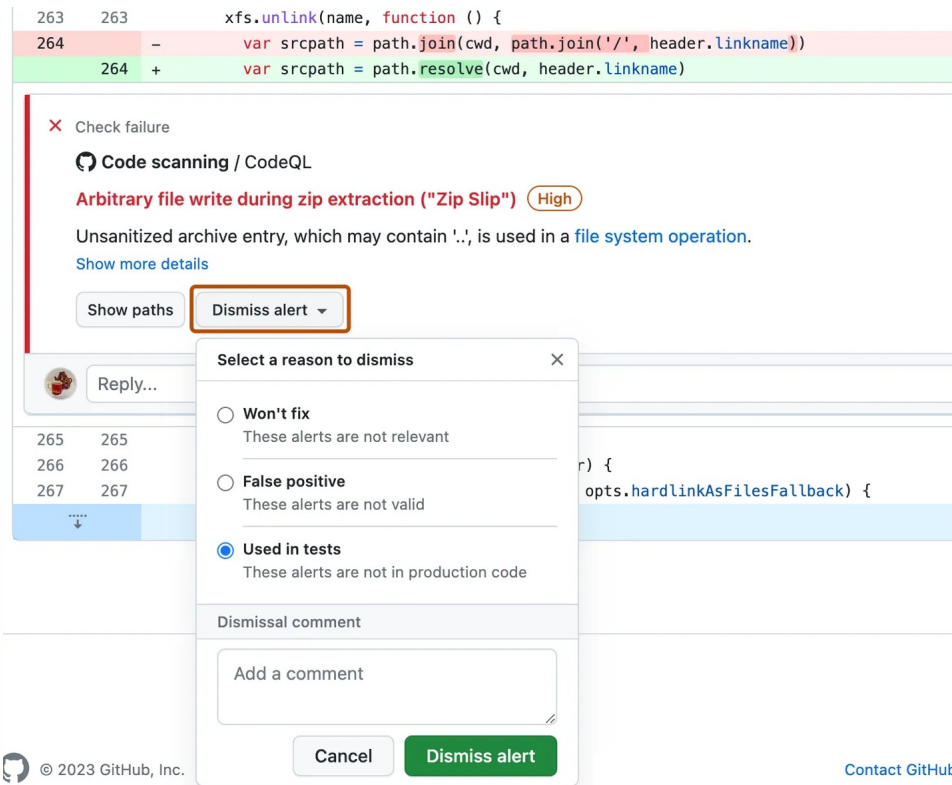
When you dismiss an alert:

- It's dismissed in all branches.
- The alert is removed from the number of current alerts for your project.
- The alert is moved to the "Closed" list in the summary of alerts, from where you can reopen it, if required.
- The reason why you closed the alert is recorded.
- Optionally, you can comment on a dismissal to record the context of an alert dismissal.
- Next time code scanning runs, the same code won't generate an alert.

To dismiss alerts:

- 1 On your GitHub Enterprise Server instance, navigate to the main page of the repository.
- 2 Under the repository name, click  **Security**. If you cannot see the "Security" tab, select the \dots dropdown menu, and then click **Security**.

- 3 In the left sidebar, click **Code scanning alerts**.
- 4 If you want to dismiss an alert, it's important to explore the alert first, so that you can choose the correct dismissal reason. Click the alert you'd like to explore.
- 5 Review the alert, then click **Dismiss alert** and choose, or type, a reason for closing the alert.



It's important to choose the appropriate reason from the drop-down menu as this may affect whether a query continues to be included in future analysis. Optionally, you can comment on a dismissal to record the context of an alert dismissal. The dismissal comment is added to the alert timeline and can be used as justification during auditing and reporting. You can retrieve or set a comment by using the code scanning REST API. The comment is contained in `dismissed_comment` for the `alerts/{alert_number}` endpoint. For more information, see "[Code Scanning](#)."


If you dismiss a CodeQL alert as a false positive result, for example because the code uses a sanitization library that isn't supported, consider contributing to the CodeQL repository and improving the analysis. For more information about CodeQL, see "[Contributing to CodeQL](#)."

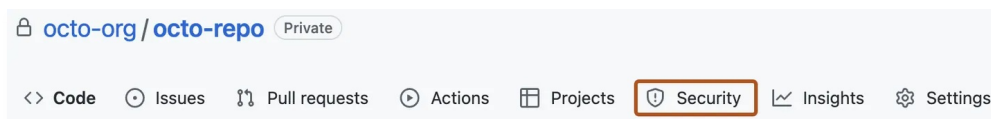
Dismissing multiple alerts at once [🔗](#)


If a project has multiple alerts that you want to dismiss for the same reason, you can bulk dismiss them from the summary of alerts. Typically, you'll want to filter the list and then dismiss all of the matching alerts. For example, you might want to dismiss all of the current alerts in the project that have been tagged for a particular Common Weakness Enumeration (CWE) vulnerability.

Removing stale configurations and alerts from a branch

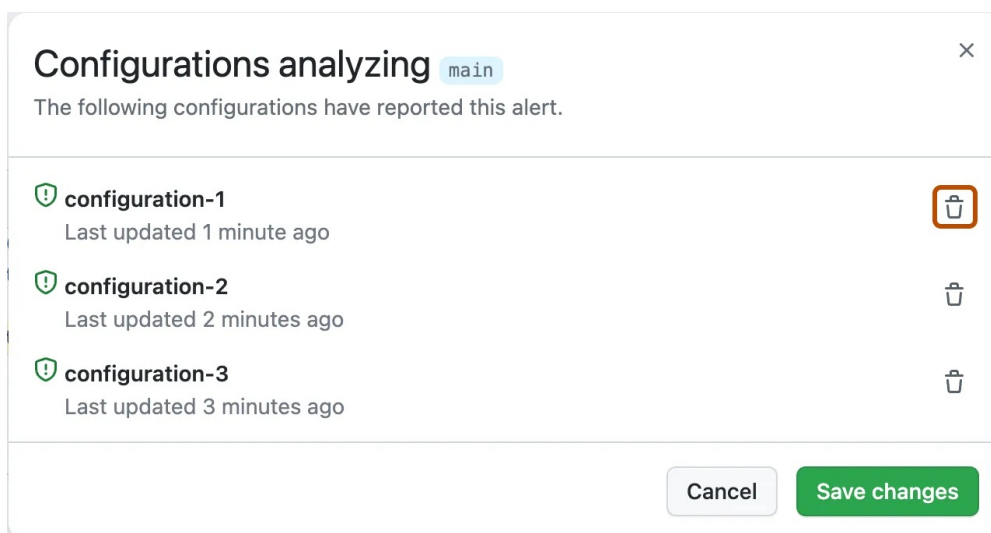
You may have multiple code scanning configurations on a single repository. When run, multiple configurations can generate the same alert. Additionally, if the configurations are run on different schedules, the alert statuses may become out-of-date for infrequent or stale configurations. For more information on alerts from multiple configurations, see "[About code scanning alerts](#)."

- 1 On your GitHub Enterprise Server instance, navigate to the main page of the repository.
- 2 Under the repository name, click  **Security**. If you cannot see the "Security" tab, select the ... dropdown menu, and then click **Security**.



- 3 In the left sidebar, click **Code scanning alerts**.
- 4 Under "Code scanning", click a code scanning alert.
- 5 In the "Affected branches" section of the sidebar, click the desired branch.
- 6 In the "Configurations analyzing" dialog, review details of the configurations that reported this alert on the selected branch. To delete an unwanted configuration for the desired branch, click .

If you delete a configuration by mistake, click **Cancel** to avoid applying your changes.



- 7 Once you have removed any unwanted configurations and confirmed the expected configurations are displayed, click **Save changes**.

If you save your changes after accidentally deleting a configuration, re-run the configuration to update the alert. For more information on re-running configurations that use GitHub Actions, see "[Re-running workflows and jobs](#)."

Notes:

- If you remove all code scanning configurations for the default branch of your repository, the default branch will remain in the "Affected branches" sidebar, but it will not be analyzed by any configurations.
- If you remove all code scanning configurations for any branch other than the default branch of your repository, that branch will be removed from the "Affected branches" sidebar.

Auditing responses to code scanning alerts

You can audit the actions taken in response to code scanning alerts using GitHub tools. For more information, see "[Auditing security alerts](#)."

Further reading

- "[Triaging code scanning alerts in pull requests](#)"
- "[Configuring default setup for code scanning](#)"
- "[About integration with code scanning](#)"

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