# Contributing to the AWS SDK for Java

Thank you for your interest in contributing the AWS SDK for Java! We work hard

to provide a high quality and useful SDK for our customers, and we appreciate

your interest in helping us and the rest of our community of users. We welcome

bug reports, feature requests, and code contributions.

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\* [Bug Reports](#bug-reports)

\* [Feature Requests](#feature-requests)

\* [Code Contributions](#code-contributions)

## Bug Reports

Bug reports are accepted through the [Issues][issues] page.

The following labels are used to track bug related issues: [bug][label-bug],

[documentation][label-doc-issue].

### Before Submitting a Bug Report

Before submitting a bug report, please do the following:

1. Do a search through the existing issues to make sure it has not already been

reported. If there's an existing one, be sure give a +1 reaction which will

help us prioritize which issues to address first.

2. If possible, upgrade to the latest release of the SDK. The SDK has a near

daily release cadence so it's possible the bug has already been fixed in the

latest version. We maintain a strong backwards compatibility guarantee

between patch version releases so you can be confident that your application

will continue to work as expected with the newer version.

If, after doing the above steps, you determine that you need to submit a bug

report, refer to the next section.

### Submitting a Bug Report

So that we are able to assist you as effectively as possible with the issue,

please ensure that your bug report has the following:

\* A short, descriptive title. Ideally, other community members should be able

to get a good idea of the issue just from reading the title.

\* A succint, detailed description of the problem you're experiencing. This

should include:

\* Expected behavior of the SDK and the actual behavior exhibited.

\* Any details of your application environment that may be relevant. At

minimum, this should include the \_\_SDK version\_\_ and \_\_JRE version\_\_.

\* If applicable, the exception stacktrace.

\* If you are able to create one, include a [Minimal Working Example][mwe]

that reproduces the issue.

\* [Markdown][markdown] formatting as appropriate to make the report easier to

read; for example use code blocks when pasting a code snippet and exception

stacktraces.

## Feature Requests

Like bug reports, feature requests are submitted through the [Issues][issues]

page.

As with Bug Reports, please do a search of the open requests first before

submitting a new one to avoid duplicates. If you find an existing one, give it

a +1.

\_\_NOTE:\_\_ If this is a feature you intend to implement, please be sure to

submit the feature request \*before\* working on any code changes. This will

allow members on the SDK team to have a discussion with you to ensure that it's

the right design and that it makes sense to include in the SDK. Keep in mind

that other concerns like source and binary compatibility will also play a

deciding factor.

Feature requests are labeled with [feature-request][label-feature-request].

### Submitting a Feature Request

Open an [issue][issues] with the following:

\* A short, descriptive title. Ideally, other community members should be able

to get a good idea of the feature just from reading the title.

\* A detailed description of the the proposed feature. Include justification for

why it should be added to the SDK, and possibly example code to illustrate

how it should work.

\* [Markdown][markdown] formatting as appropriate to make the request easier to

read.

\* If you intend to implement this feature, indicate that you'd like to the

issue to be assigned to you

## Code Contributions

Code contributions to the SDK are done through [Pull Requests][pull-requests].

Please keep the following in mind when considering a code contribution:

\* The SDK is released under the [Apache 2.0 License][license].

Any code you submit will be released under this license. If you are

contributing a large/substantial feature, you may be asked to sign a

Contributor License Agreement (CLA).

\* For anything but very small or quick changes, you should always start by

checking the [Issues][issues] page to see if the work is already being done

by another person.

If you're working on a bug fix, check to see if the bug has already been

reported. If it has but no one is assigned to it, ask one of the maintainers

to assign it to you before beginning work. If you're confident the bug

hasn't been reported yet, create a new [Bug Report](#bug-reports) then ask to

be assigned to it.

If you are thinking about adding entirely new functionality, open a [Feature

Request](#feature-requests) or [ping][gitter] the maintainers to ask for

feedback first before beginning work; again this is to make sure that no one

else is already working on it, and also that it makes sense to be included in

the SDK.

\* All code contributions must be accompanied with new or modified tests that

verify that the code works as expected; i.e. that the issue has been fixed or

that the functionality works as intended.

### Pull Request Readiness

Before submitting your pull request, refer to the pull request readiness

checklist below:

\* [ ] Includes tests to exercise the new behavior

\* [ ] Code is documented, especially public and user-facing constructs

\* [ ] Local run of `mvn install` succeeds

\* [ ] Git commit message is detailed and includes context behind the change

\* [ ] If the change is related to an existing Bug Report or Feature Request,

the issue number is referenced

\_\_Note\_\_: Some changes have additional requirements. Refer to the section below

to see if your change will require additional work to be accepted.

### Additional Pull Request Requirements

#### Getting Your Pull Request Merged

All Pull Requests must be approved by at least one member of the SDK team

before it can be merged in. The members only have limited bandwidth to review

Pull Requests so it's not unusual for a Pull Request to go unreviewed for a few

days, especially if it's a large or complex one. If, after a week, your Pull

Request has not had any engagement from the SDK team, feel free to ping a

member to ask for a review.

If your branch has more than one commit when it's approved, you will also be

asked to [squash][git-rewriting-history] them into a single commit before it is

merged in.

## Getting in Contact

\* Come chat with us on [Gitter][gitter]!

[license]: ./LICENSE.txt

[mwe]: https://en.wikipedia.org/wiki/Minimal\_Working\_Example

[markdown]: https://guides.github.com/features/mastering-markdown/

[issues]: https://github.com/aws/aws-sdk-java/issues

[pull-requests]: https://github.com/aws/aws-sdk-java/pulls

[label-bug]: https://github.com/aws/aws-sdk-java/labels/bug

[label-doc-issue]: https://github.com/aws/aws-sdk-java/labels/documentation

[label-feature-request]: https://github.com/aws/aws-sdk-java/labels/feature-request

[git-rewriting-history]: https://git-scm.com/book/en/v2/Git-Tools-Rewriting-History

[gitter]: https://gitter.im/aws/aws-sdk-java