☰   **Documentation**
     (https://docs.aws.amazon.com/index.html)   ❯   **Amazon Q**
                                                           (https://docs.aws.amazon.com/amazonq/index.html)   ❯   **Us...**

Supported languages for Amazon Q Developer in the IDE

⬇ **PDF (/pdfs/amazonq/latest/qdeveloper-ug/amazonq-developer-ug.pdf#q-language-ide-support)**

⬇ **RSS (amazonq-developer-ug-updates.rss)**   ◯ Focus mode

                                                                                                    ✕

On this page

Inline suggestions(#inline-suggestions-language-support)

Transformations(#transformation-language-support)

Unit test generation (/test)(#code-test-automation-language-support)

Code reviews (/review)(#code-reviews-language-support)

Customizations(#customization-language-support)

Adjust text size

14   20

You can use the following features of Amazon Q Developer in the IDE with any programming language:

- Chat (./q-in-IDE-chat.html)

- Inline chat (./q-in-IDE-inline-chat.html)

- Feature development - /dev (./software-dev.html)

- Documentation generation - /doc (./doc-generation.html)

The quality of outputs while using these features varies based on the popularity of the language.

For the remaining features of Amazon Q in the IDE, the supported languages are listed in the following sections.

Language support for inline suggestions

Amazon Q supports inline code suggestions (./inline-suggestions.html) for multiple programming languages. The accuracy and quality of the code generation for a programming language depends on the size and quality of the training data.

In terms of the quality of the training data, the programming languages with the most support are:

- C
- C++
- C#
- Dart
- Go
- Java
- JavaScript
- Kotlin
- Lua
- PHP
- PowerShell
- Python
- R
- Ruby
- Rust
- Scala
- Shell
- SQL
- Swift
- SystemVerilog
- TypeScript

The Infrastructure as Code (IaC) languages with the most support are:

- CDK (Typescript, Python)
- HCL (Terraform)
- JSON
- YAML

Language support for transformations

The supported languages for transformation depend on the environment where you are transforming code.

In JetBrains IDEs and Visual Studio Code, Amazon Q can transform code in the following languages:

- Java (./code-transformation.html)
- Embedded SQL conversion for Oracle to PostgreSQL database migration (./transform-sql.html)

In Visual Studio, Amazon Q can transform code in the following languages:

- C# in .NET applications (./transform-dotnet-IDE.html)

For more information about supported languages and other prerequisites for transformation, see the topic for the type of transformation you're performing.

Language and framework support for unit test generation with /test

Amazon Q can generate unit tests (./test-generation.html) for the following languages and test frameworks:

- Python
  - Supported test frameworks: Pytest, Unittest
- Java
  - Supported test frameworks: JUnit (JUnit 4 and 5, JUnit Jupiter), Mockito

Language support for code reviews with /review

Amazon Q can create code reviews (./code-reviews.html) and provide automatic code fixes for files and projects written in the following languages:

- Java - Java 17 and earlier
- JavaScript - ECMAScript 2021 and earlier
- Python - Python 3.11 and earlier, within the Python 3 series
- C# - All versions (.NET 6.0 and later recommended)
- TypeScript - All versions
- Ruby - Ruby 2.7 and 3.2
- Go - Go 1.18
- C - C11 and earlier
- C++ - C++17 and earlier
- PHP - PHP 8.2 and earlier
- Kotlin - Kotlin 2.0.0 and earlier
- Scala - Scala 3.2.2 and earlier
- JSX - React 17 and earlier
- Infrastructure as Code (IaC) languages
    - AWS CloudFormation - 2010-09-09
    - Terraform - 1.6.2 and earlier
    - AWS CDK - TypeScript and Python

Language support for customizations

Amazon Q supports customizations (./customizations.html) for the following languages, and uses the listed file types to create customizations:

- Bash/Shell (.sh, .zsh, .bash)
- C (.c, .h)
- C# (.cs)
- C++ (.cpp, .hpp, .h)
- Dart (.dart)
- Go (.go)
- HCL (.hcl)
- HTML (.html, .htm)
- Java (.java)

- JavaScript (.js, .jsx)
- JSON (.json)
- Kotlin (.kt, .kts)
- Markdown (.md, .mdx)
- PHP (.php)
- Powershell (.ps1, .psm1, .psd1)
- Python (.py)
- reStructuredText (.rst)
- Ruby (.rb)
- Rust (.rs)
- Scala (.scala)
- Terraform (.tf, .tfvars)
- Text (.txt)
- TypeScript (.ts, .tsx)
- YAML (.yaml, .yml)