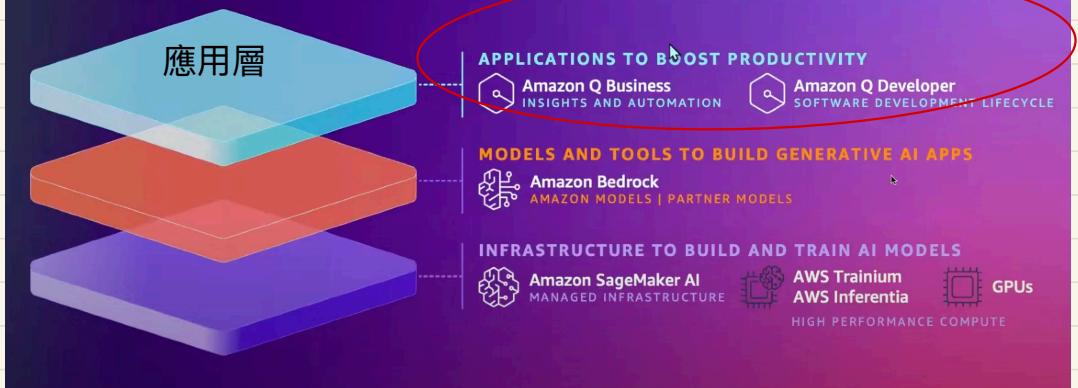


## AWS Generative AI Stack



輔助修正程式碼協助測試

## Amazon Q Developer



幫助開發人員和 IT 專業人員加速整個軟體開發生命週期 (SDLC) 的開發流程



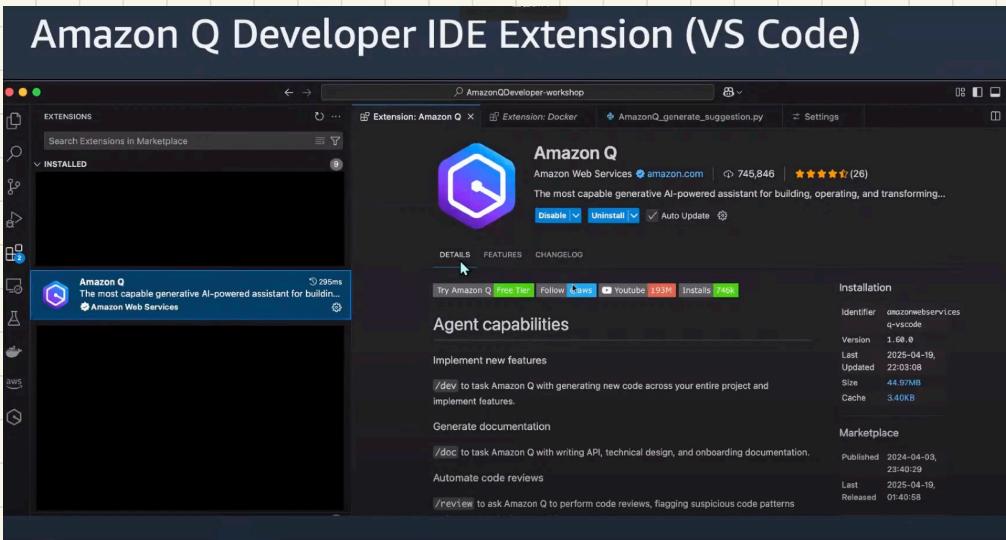
準確的程式碼建議

Agent 可自主協助你實現功能開發、最佳化程式碼、升級軟體等。

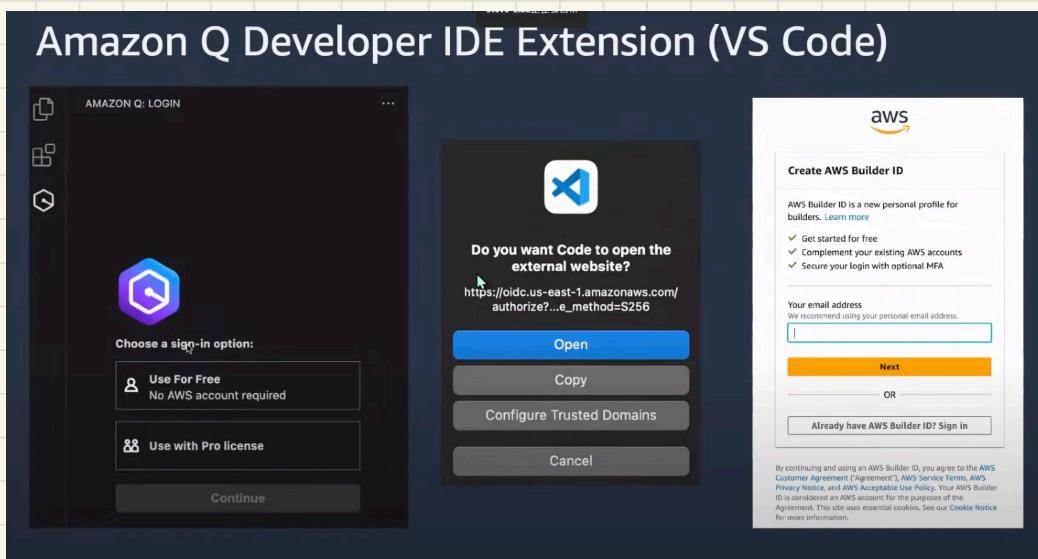
Amazon Q Developer 是 AWS 專家，精通最佳化雲端環境。

業界領先的安全漏洞掃描與修復方案。

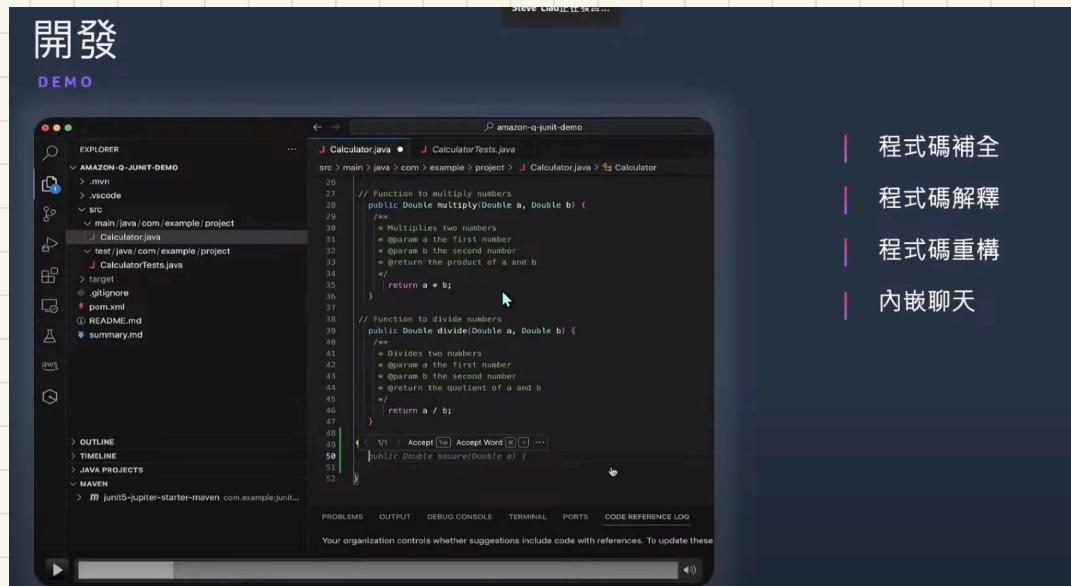
download



use for pro lincense



可以由註解生code(按tab)



輸入指令>accept

The screenshot shows the AWS Lambda interface with the following details:

- Top Bar:** Shows "Steve Liu正在發言...".
- Main Area:** A chat window titled "Feature development" with the sub-section "Amazon Q Developer Agent for Software Development". It displays a message: "generate - Python Flask 應用程式架構，包含用戶認證系統、REST API 和 SQLAlchemy 資料庫整合。請包含目錄結構和主要權限的程式碼。".
- Bottom Left:** Shows a progress bar with the text "Gathering context..." and a "Stop" button.
- Bottom Right:** A sidebar titled "Q Developer Agent (/dev)" with the sub-section "Amazon Q Developer Agent for Software Development". It lists features:
  - 能夠在幾分鐘內直接從您 IDE 中的簡單自然語言提示編寫並實現整個應用程式功能。
  - 分步式的互動式指導、編碼、測試並符合最佳實踐
- Bottom Footer:** Shows the AWS logo and the text "© 2025, Amazon Web Services, Inc. or its affiliates. All rights reserved. Amazon Confidential and Trademark."

製作單元測試test，也可以生成文件readme

## Agent – 單元測試生成

DEMO

The screenshot shows the Amazon Q Developer interface with a Java project named 'Calculator'. The code editor displays 'Calculator.java' with methods for addition, subtraction, multiplication, and division. Below the code, a diff viewer shows generated unit tests for each method. A message at the bottom says 'Select View diff to see the generated unit tests.' A red box highlights the text '要先給指令' (You must give instructions) in the top right corner.

要先給指令

Agent (/test) 是專為單元測試而設計的，可以自動生成單元測試

測試覆蓋率更高，交付程式碼更可靠

## Agent – 文件生成

DEMO

The screenshot shows the Amazon Q Developer interface with a Python project named 'flask'. A modal window titled 'Create a README for your project' is open, with a 'Create a README' button. A red circle highlights this button. Below the modal, a progress bar indicates the process of generating a README. A red box highlights the text '確認文件正確process (繼續)' (Confirm file generation continues) in the center of the screen. On the right, a red box highlights the text 'Agent (/doc) 自動生成 README 文檔' (Agent (/doc) automatically generates README documents).

確認文件正確process (繼續)

Agent (/doc) 自動生成 README 文檔

幫助團隊成員妥善維護專案文檔，節省時間

/ review 檢視錯誤

# Agent – 安全和程式碼品質掃描

DEMO

The screenshot shows the AWS Lambda interface for reviewing Python code. On the left, a sidebar displays 'CHAT' and 'Ask a question or enter "?" for quick actions'. Below that is a section for 'Responses. See the AWS Responsible AI Policy.' and a 'CODE ISSUES' section with a tree view showing 'Critical 0 issues', 'High 0 issue', 'Low 0 issues', and 'Info 0 issues'. A message 'Complex code can be difficult to read and hard to maintain.' is displayed above the code editor. The code editor itself contains a snippet of Python code related to AWS Lambda detectors, with several red underlines indicating errors. The right side of the interface shows 'Code Issue Details' for a specific error, including a title 'Complex code can be difficult to read and hard to maintain.', a detailed description of the issue, and a 'Learn more' link.

Agent (/review) 自動掃描程式碼

自動檢測並解決常見的程式碼品質問題

提升程式碼審核的一致性

## Amazon Q Developer CLI

安裝 Amazon Q Developer CLI

[https://docs.aws.amazon.com/zh\\_tw/amazonq/latest/qdeveloper-uq/command-line-installing.html](https://docs.aws.amazon.com/zh_tw/amazonq/latest/qdeveloper-uq/command-line-installing.html)

macOS：可以下載應用程式或使用 Homebrew，為 macOS 安裝 Amazon Q Developer CLI

Windows：Amazon Q Developer CLI 沒有原生 Windows 版本，但可以透過 Windows Subsystem for Linux (WSL) 提供在 Windows 上執行的 Linux 環境，在其中安裝和使用。

Linux AppImage：可以使用 AppImage 格式安裝適用於 Linux 命令列的 Amazon Q，這是可攜式格式，可在大多數 Linux 發行版本上運作，而不需要安裝。

Ubuntu：可以使用 .deb 套件為 Ubuntu 安裝命令列的 Amazon Q

## Amazon Q Developer CLI

DEMO

終端機 Q chat

```
[/tmp % q chat
Hi, I'm Amazon Q. Ask me anything.

@history to pass your shell history
@git to pass information about your current git repository
@env to pass your shell environment

> Scaffold a new application named call-for-content using React and Vite, and then commit it to git.
```

Steve LINU正在發言...

多輪對話支援

- 支援對話互動
- 保持上下文
- 使用者與 Agent 協作完成任務

工具使用

- 直接修改程式碼文件
- 執行本地命令列工具
- 自動執行常見開發任務（如框架建立、Git操作、安裝相依套件）

速度快、準確性高



# 部署雲端

## Amazon Q Developer CLI agent

在 AMAZON Q DEVELOPER CLI 中提供極速全新的 AGENT 體驗

The infrastructure consists of a parent stack that deploys three nested stacks:

1. VPC Stack: Network infrastructure
2. Cluster Stack: ECS cluster for container orchestration
3. Service Stack: Containerized application deployment

**Stack Details**

**Parent Stack (parent.yaml)**  
The parent stack orchestrates the deployment of all nested stacks and manages dependencies between them.

**VPC Stack (vpc.yaml)**

透過互動式編碼，自主執行複雜工作體驗流程

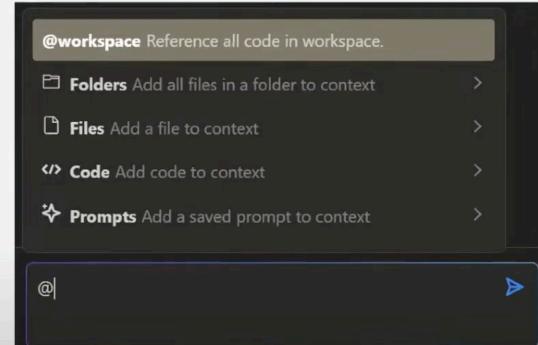
透過自然語言對話和上下文感知優化開發工作流程

- 讀寫本地文件
- 寫程式碼
- 跑測試
- 調試問題
- 部署程式碼

為對話提供正確的上下文

使用 @ 引用額外內容

- @workspace – 引用整個 workspace
- @folder – 引用特定資料夾
- @file – 引用特定檔案
- @code – 引用 code
- @prompt – 引用之前保存的 prompt



\* 注意上下文大小，不要引用過大的內容

帳號 : stellajane711@gmail.com

密碼 : ronkac-buxxox-Xibfi5

# 直接修改程式碼用快捷鍵

## 先選中程式碼！！！

快捷鍵觸發

MacOS: Cmd + I

Windows: Ctrl + I

使用自然語言描述需求 (支援中文)

## Amazon Q Developer 會

直接生成修改後的程式碼在文件編輯區中，無需複製貼上

生成 diff

使用 Enter 接受或是 ESC 拒絕

The screenshot shows a code editor window with the following code:

```
make these variables public
Enter instructions for Q [confirm or 'Escape' to cancel]
Users > mrlie > TS inlinechat.ts > inlineChatController.ts

30
31
32
33
34
35
36 export class InlineChatController { // Amazon Q: Edit I
37   private task: InlineTask | undefined
38   private readonly decorator = new InlineDecorator()
39   private readonly inlineChatProvider: InlineChatProvider
40   private readonly codeLensProvider: CodeLensProvider
41   private readonly referenceLogController = new ReferenceLogController()
42   private readonly inlineLineAnnotationController: InlineLineAnnotationController
43   private userQuery: string | undefined
44   private listeners: vscode.Disposable[] = []
```

Below the code editor, there is another code block with the same content, likely representing the generated or modified code.

## CLI命令

### 使用 q chat 內建命令

- /help
- /tools
- /compact
- /profile
- /context
- /editor or Ctrl+J
- /issue
- !{command}

The screenshot shows the AWS Lambda Chat CLI help output with the following commands and descriptions:

Commands:	Description
/clear	Clear the conversation history
/issue	Report an issue or make a feature request
/editor	Open \$EDITOR (defaults to vi) to compose a prompt
/help	Show this help dialogue
/quit	Quit the application
/compact	Summarize the conversation to free up context space
help	Show help for the compact command
[prompt]	Optional custom prompt to guide summarization
--summary	Display the summary after compacting
/tools	View and manage tools and permissions
help	Show an explanation for the trust command
trust	Trust a specific tool for the session
untrust	Revert a tool to per-request confirmation
trustall	Trust all tools (equivalent to deprecated /acceptall)
reset	Reset all tools to default permission levels
/profile	Manage profiles
help	Show profile help
list	List profiles
set	Set the current profile
create	Create a new profile
delete	Delete a profile
rename	Rename a profile
/context	Manage context files for the chat session
help	Show context help
show	Display current context rules configuration [--expand]
add	Add file(s) to context [--global] [--force]
rm	Remove file(s) from context [--global]
clear	Clear all files from current context [--global]

**Tips:**

- !{command} Quickly execute a command in your current session
- Ctrl+(`) + j Insert new-line to provide multi-line prompt. Alternatively, [Alt(`) + Enter(`)]