



AI + Antigravity + Python/R



RWEPA: <https://rwepa.blogspot.com/>
YT: <https://www.youtube.com/@alan9956>



大綱

- 1.認識 Google Antigravity AI 平台
- 2.安裝 Antigravity
- 3.使用 Antigravity 事前準備
- 4.Antigravity + Python + SQL
- 5.Antigravity + R + SQL
- 6.結論



1. 認識 Google Antigravity AI 平台



Google Antigravity 簡介

- Google Antigravity 是一個於 2025 年 11 月推出的「代理優先 (Agent-first)」AI 程式開發平台與整合開發環境 (IDE)，由 Google DeepMind 團隊打造。
- 它基於 VS Code 介面，核心功能在於讓 AI Agent 自主進行規劃、編碼、終端操作與測試、除錯、部署，實現從「輔助編碼」到「自主開發」的轉變。



Google Antigravity 特性

- **自主AI代理 (Agent-First)**：AI 不再僅是程式碼補全助手，而邁向代理型開發平台 (Agentic Development Platform)，成為能夠獨立執行任務的智慧開發者。
- **Gemini 3 Pro 整合**：結合了強大的 Gemini 3 等相關模型，支援複雜邏輯處理。
- **雙工作視角**：包含 Editor View (編輯器視圖) 和 Manager Surface (任務管理面板)，允許用戶切換編輯模式與管理 AI 工作流程。
- **自主測試與偵錯**：Agent 能夠在虛擬環境中運行程式、瀏覽器驗證與**測試與說明**。
- **透明化工作流**：提供任務清單、截圖、終端操作錄影，讓 AI 的工作過程可以審查。
- **跨平台使用**：支援 Windows、macOS 與 Linux。
- **未來趨勢**：如何定義問題、拆解任務，以及領導 AI 代理團隊的能力。

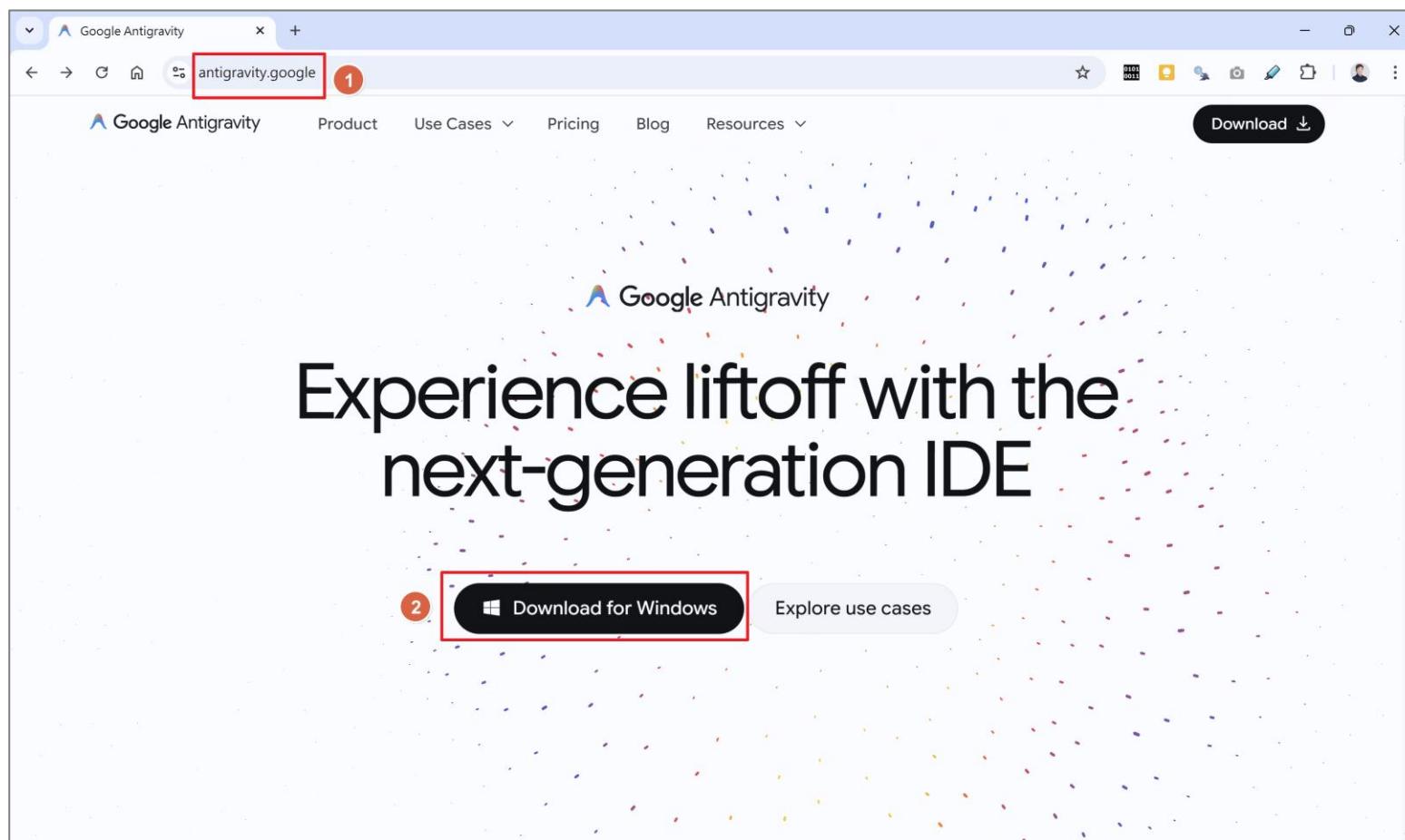


2. 安裝 Antigravity



下載 Antigravity.exe

- <https://antigravity.google/>





下載 Windows x64

Download Google Antigravity for Windows | [View previous releases](#)

Select download

MacOS ↓ Download for Apple Silicon ↓ Download for Intel	Windows ↓ Download for x64 (highlighted) ↓ Download for ARM64	Linux ↓ Download
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A red arrow points from the text "Download Windows x64" in the main title to the "Download for x64" link in the center column.



授權合約

Antigravity (User) 安裝程式

授權合約
請閱讀以下授權合約。

請閱讀以下授權合約，您必須接受合約的各項條款才能繼續安裝。

Google Antigravity Additional Terms of Service

BY CLICKING “I ACCEPT,” SIGNING AN ORDER FORM THAT REFERENCES THESE TERMS OF SERVICE, OR BY DOWNLOADING, INSTALLING, OR OTHERWISE ACCESSING OR USING THE GOOGLE ANTIGRAVITY SERVICES (HEREIN REFERRED TO AS THE “SERVICE”), YOU AGREE THAT YOU HAVE READ AND UNDERSTOOD, AND, AS A CONDITION TO YOUR USE OF THE SERVICE, YOU AGREE TO BE BOUND BY, THE FOLLOWING TERMS AND CONDITIONS:

1. All of the following documents govern your use of the Service:

a. the Google Terms of Service (the “Universal Terms”) - <https://policies.google.com/terms>;

b. these Google Antigravity Additional Terms of Service (the “Google Antigravity Terms”);

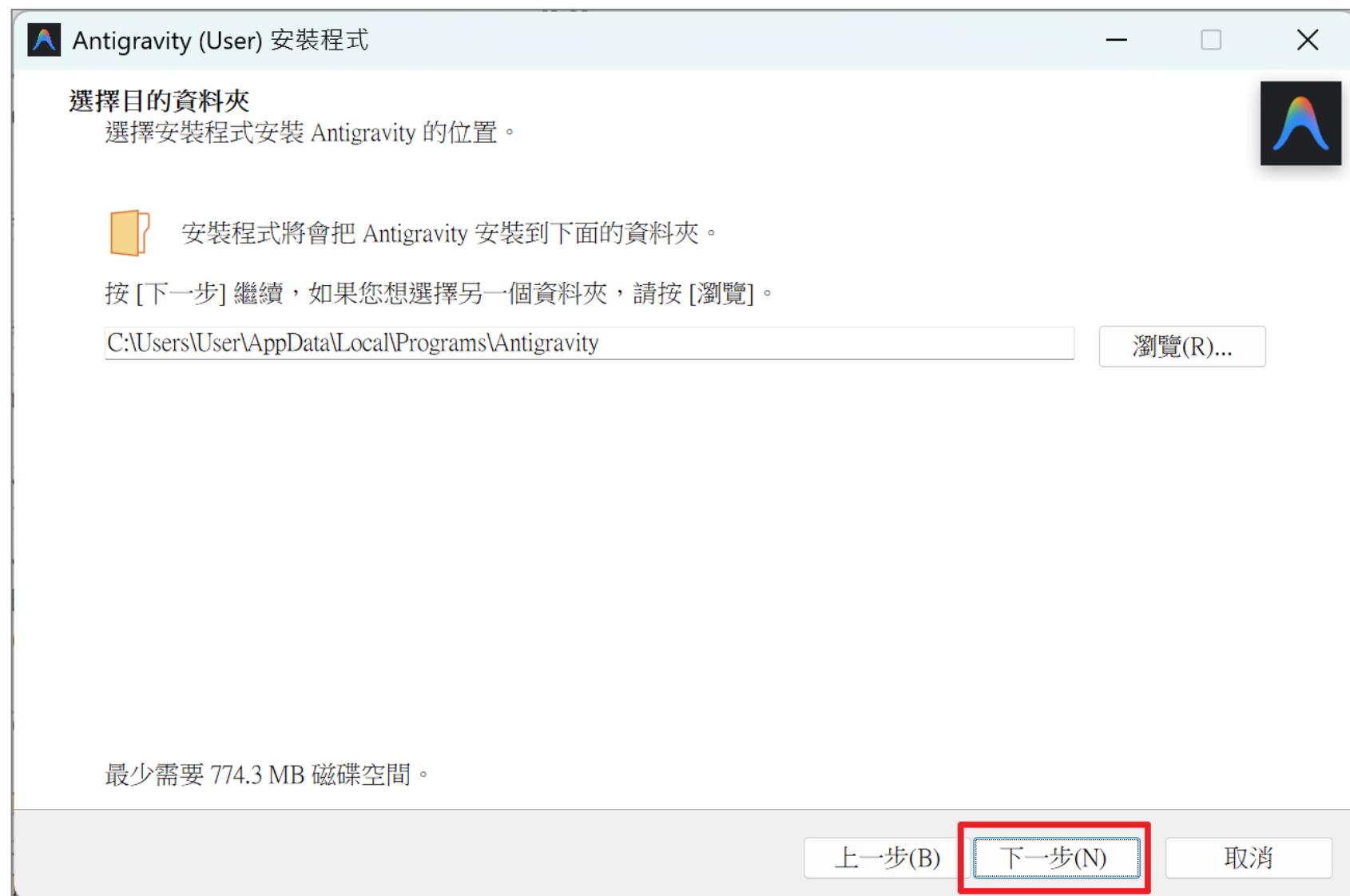
c. the Google Privacy Policy (the “Privacy Policy”) - <https://policies.google.com/privacy>; and

我同意(A)
 我不同意(D)

下一步(N) 取消

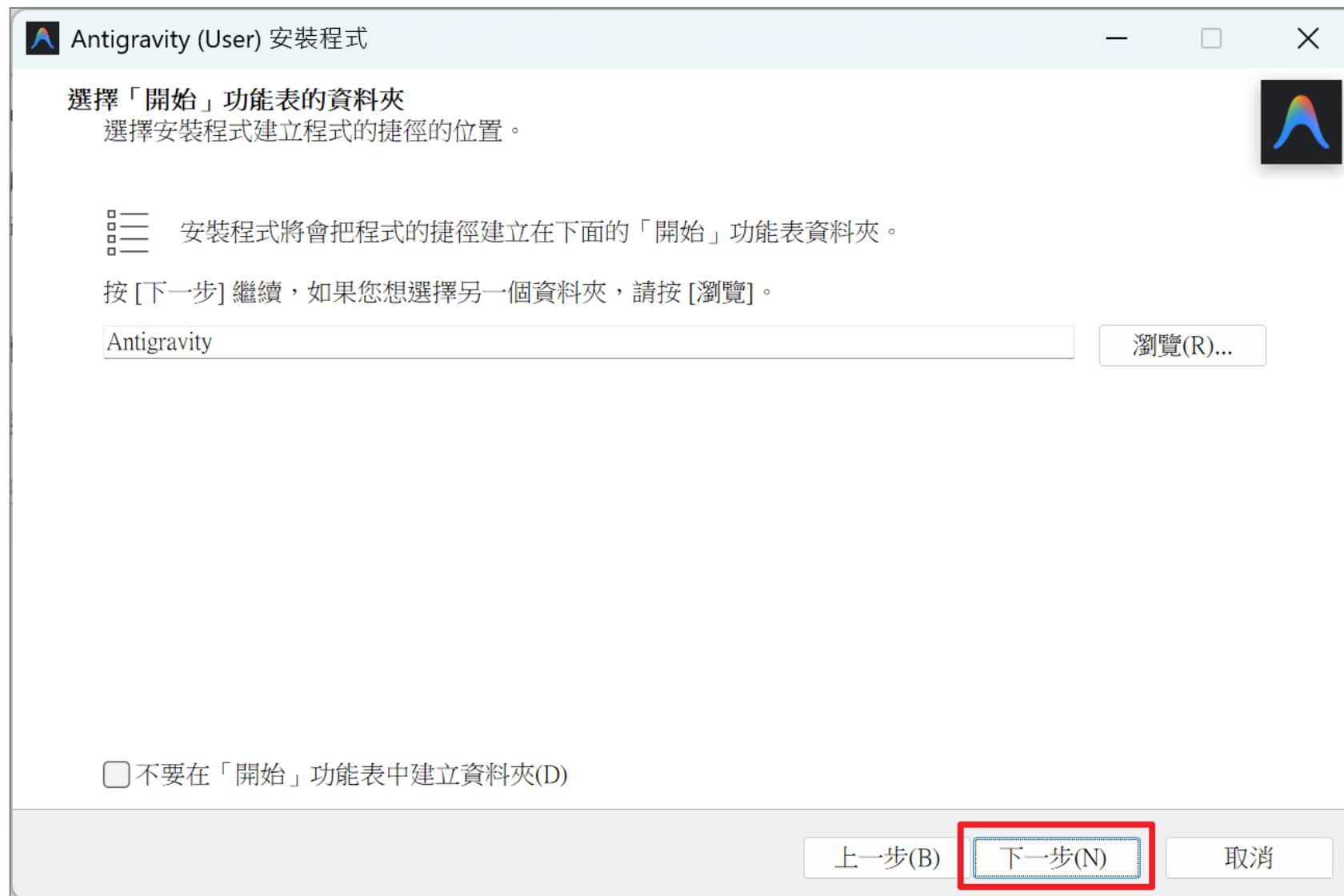


選擇目的資料夾



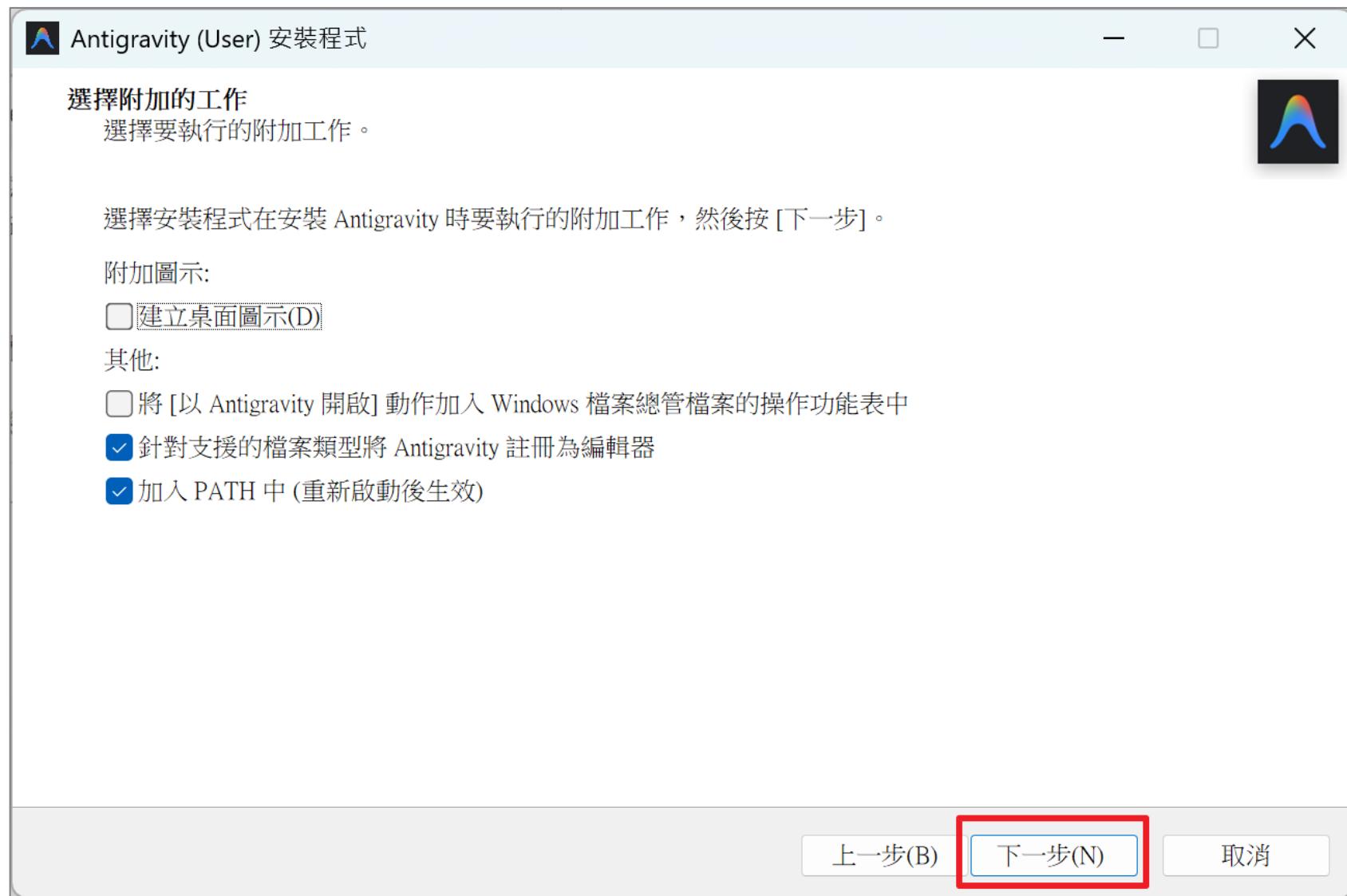


選擇開始功能表的資料夾



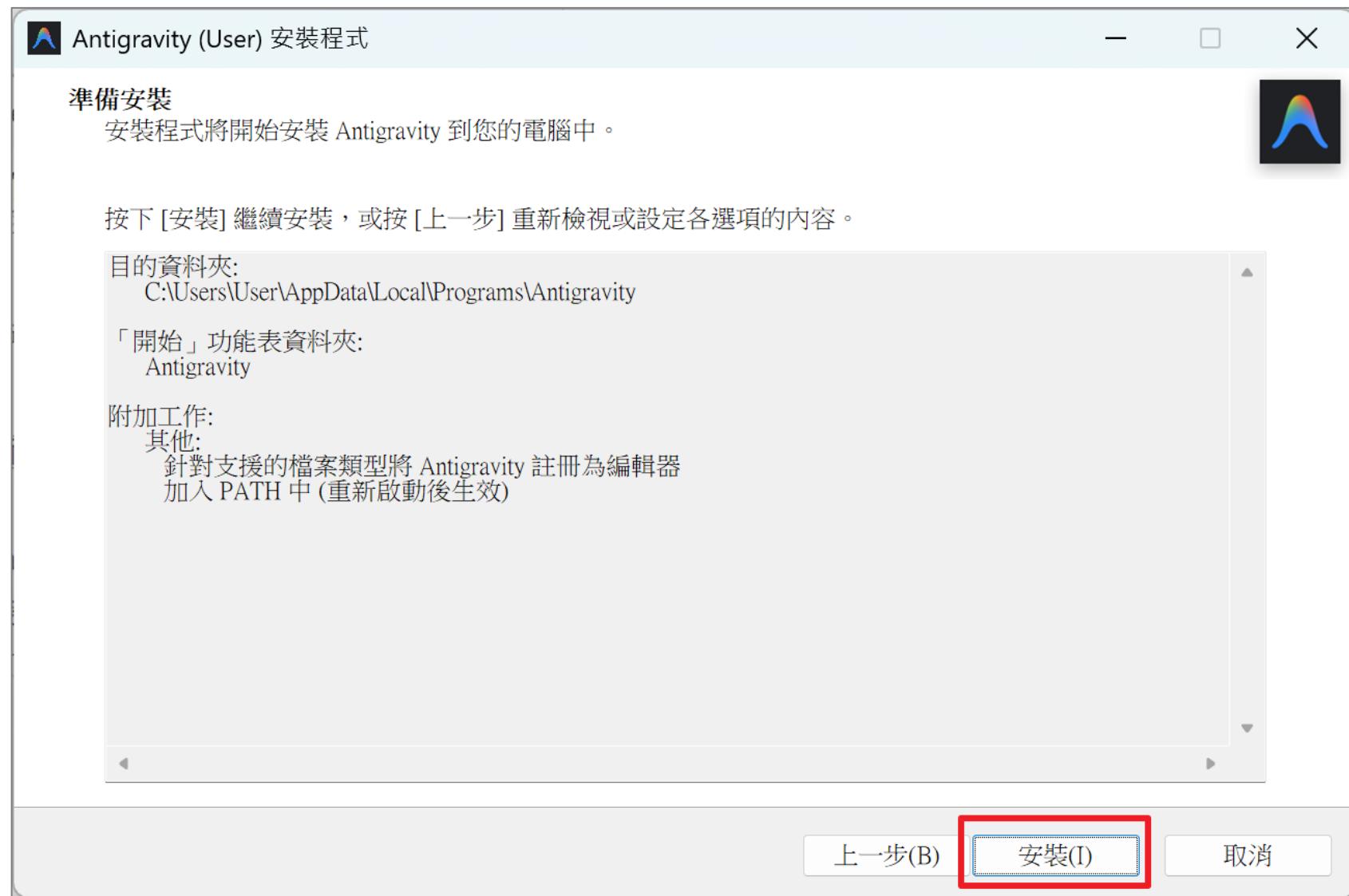


選擇附加的工作



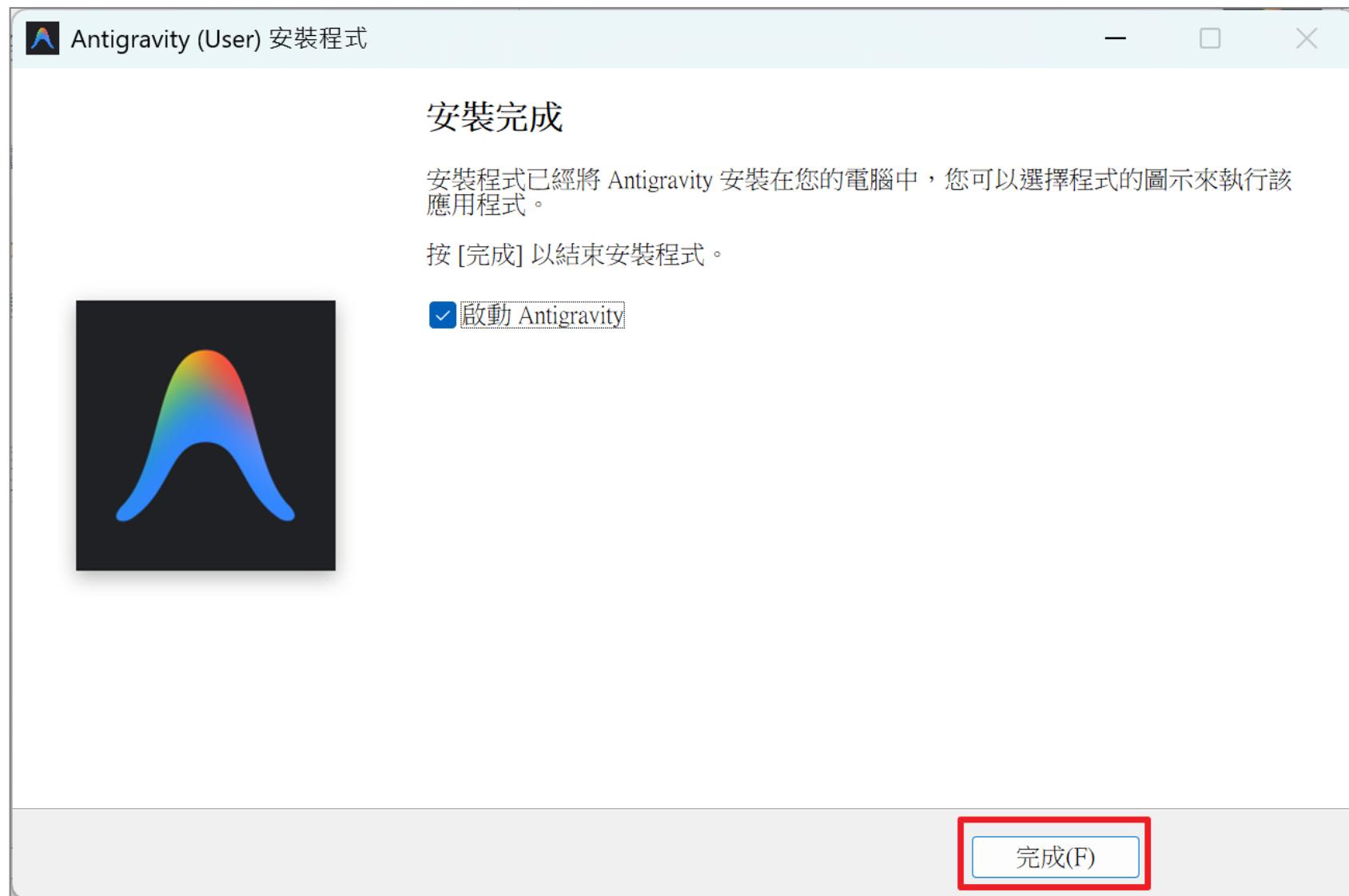


準備安裝



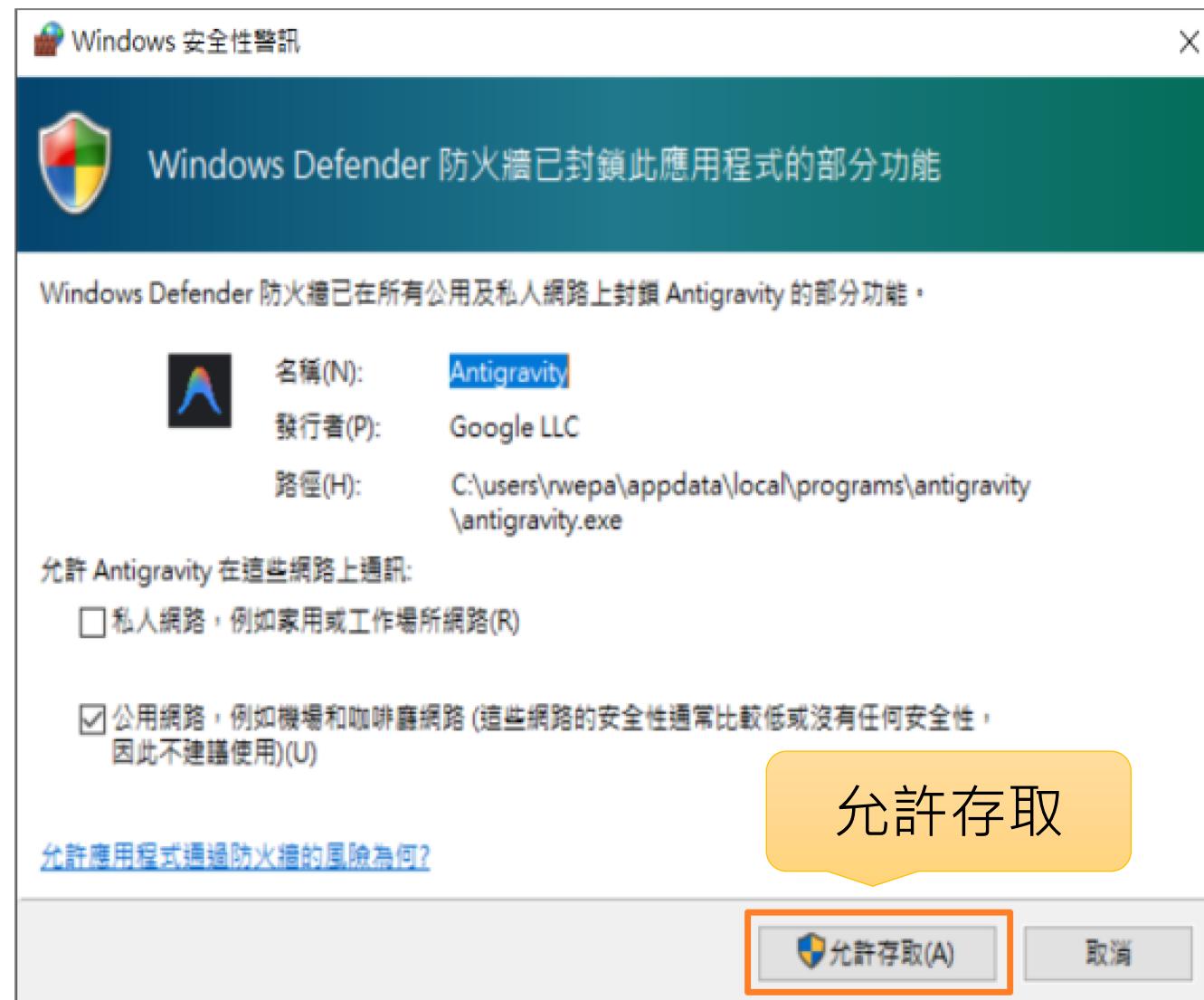


安裝完成



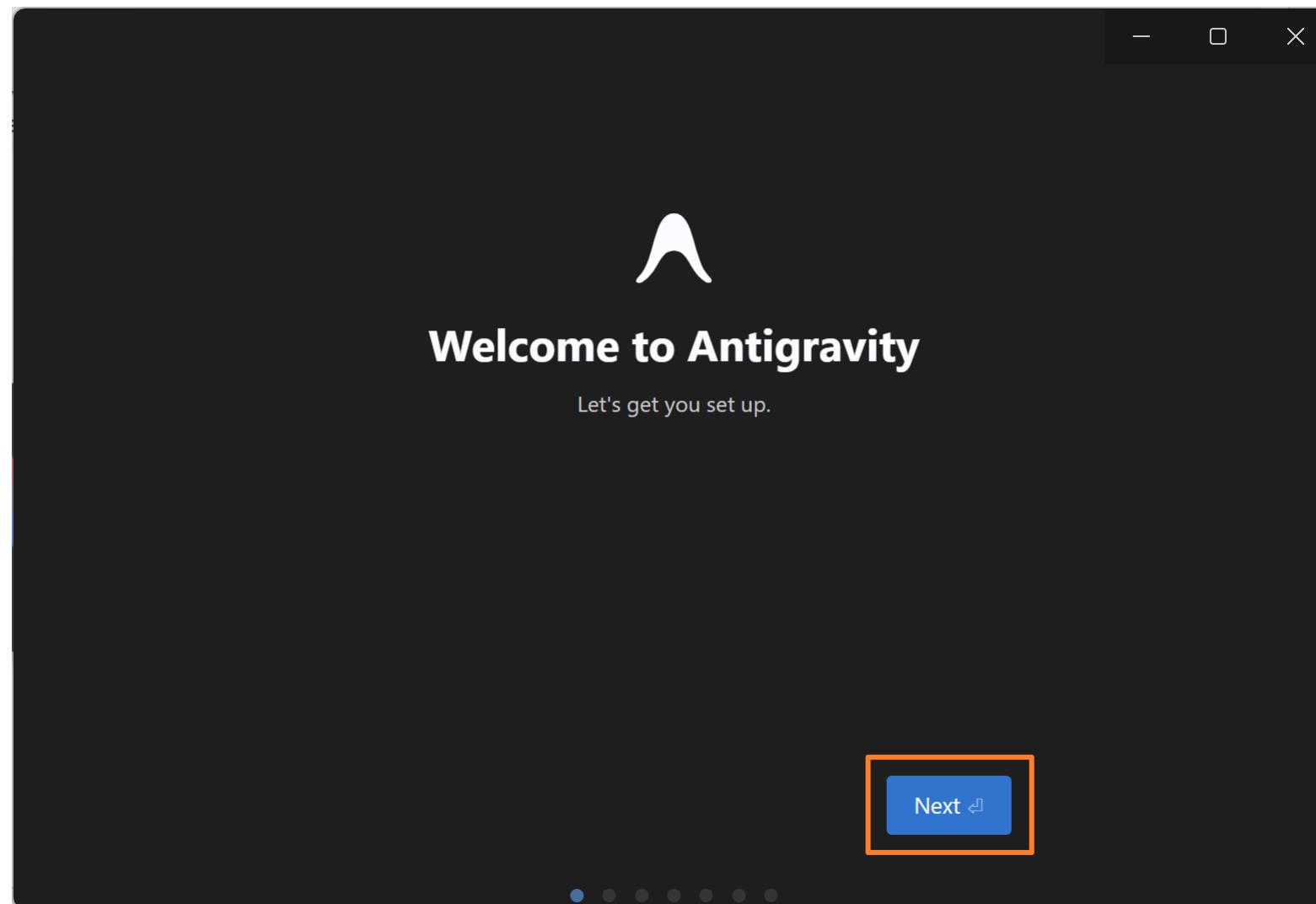


Windows 安全性



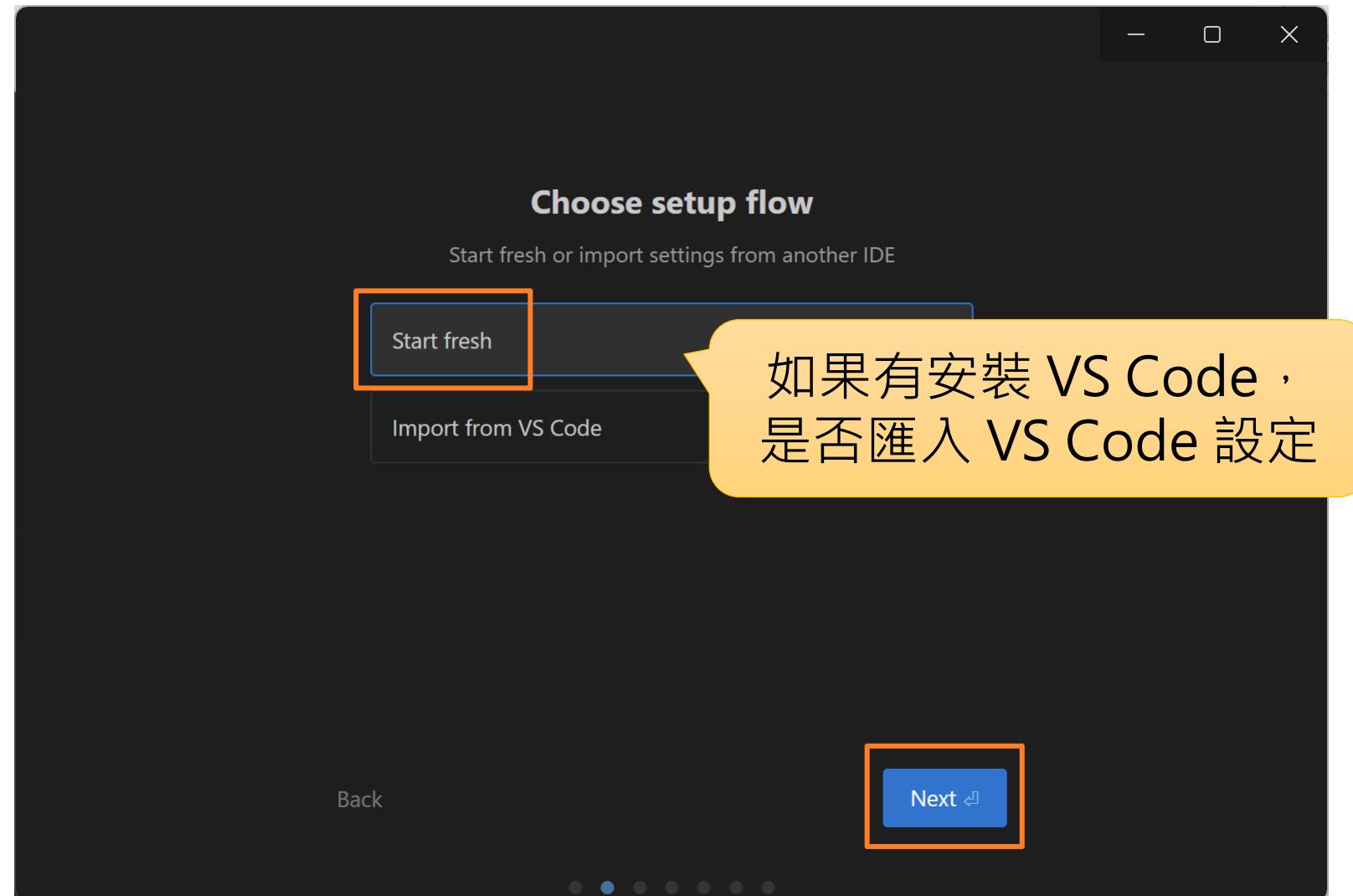


Antigravity 歡迎首頁



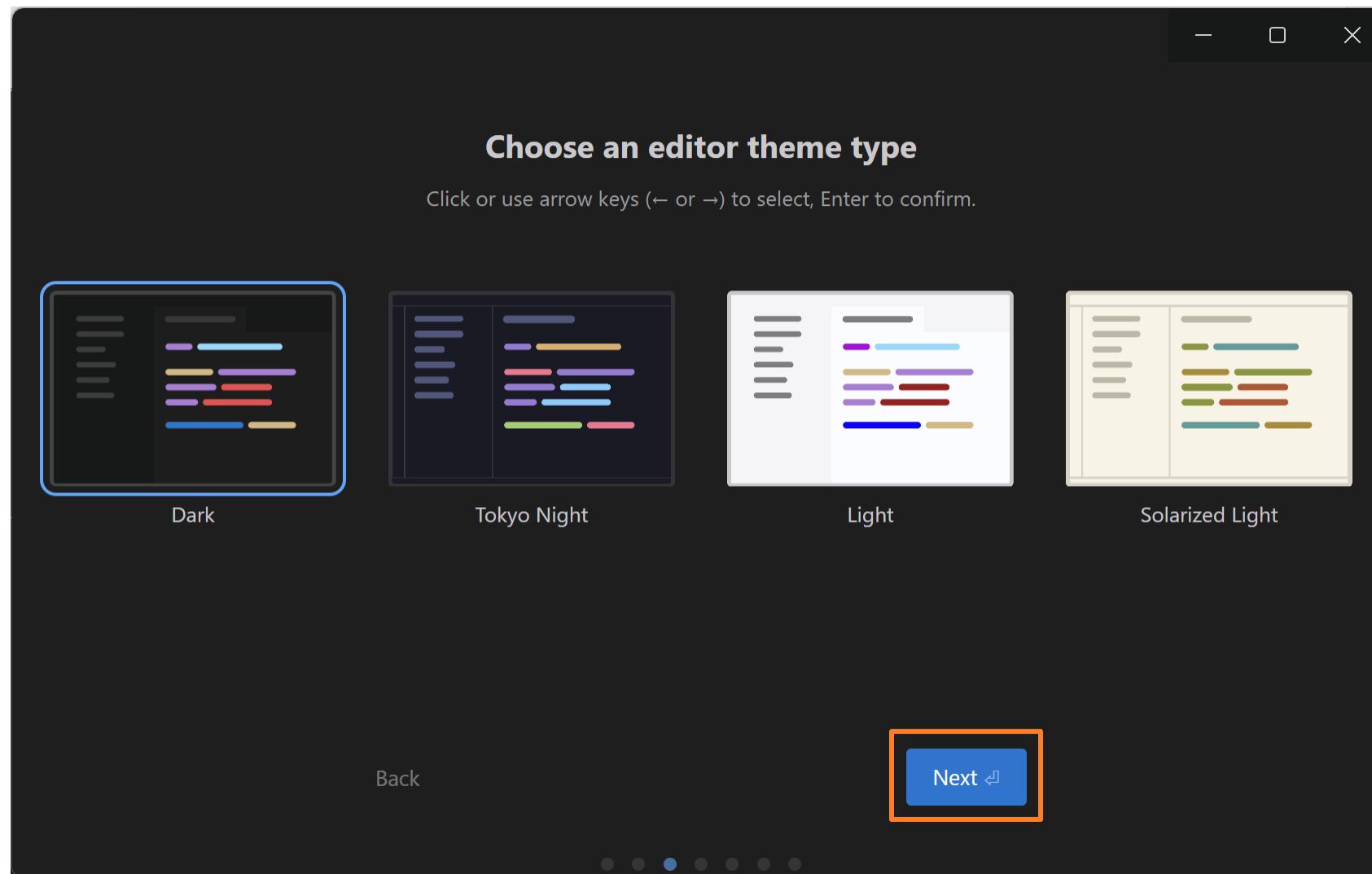


Choose setup flow





Choose an editor theme type





Select one of the options below

Select one of the options below.

The screenshot shows the Antigravity setup wizard. On the left, a list of development modes is displayed:

- Strict Mode
- Review-driven development** (selected, highlighted with an orange border)
- RECOMMENDED
- Agent-driven development
- Custom configuration

A yellow callout bubble highlights the second option:

1. 嚴格模式
2. 審查主導的開發 【預設值】
3. 代理主導的開發
4. 客製化設定

On the right, detailed configuration settings are shown:

- Terminal execution policy:** Request Review
- Review policy:** Request Review
- JavaScript execution policy:** Disabled

Informational text at the bottom right states: "Browser allowlist begins with localhost and can be updated through the settings page." and "The agent will frequently ask for review."

Next ↗



Configure Your Editor

The screenshot shows a dark-themed configuration interface titled "Configure Your Editor". At the top right are window control buttons for minimize, maximize, and close. Below the title is a sub-header "Configure your editor settings below.".

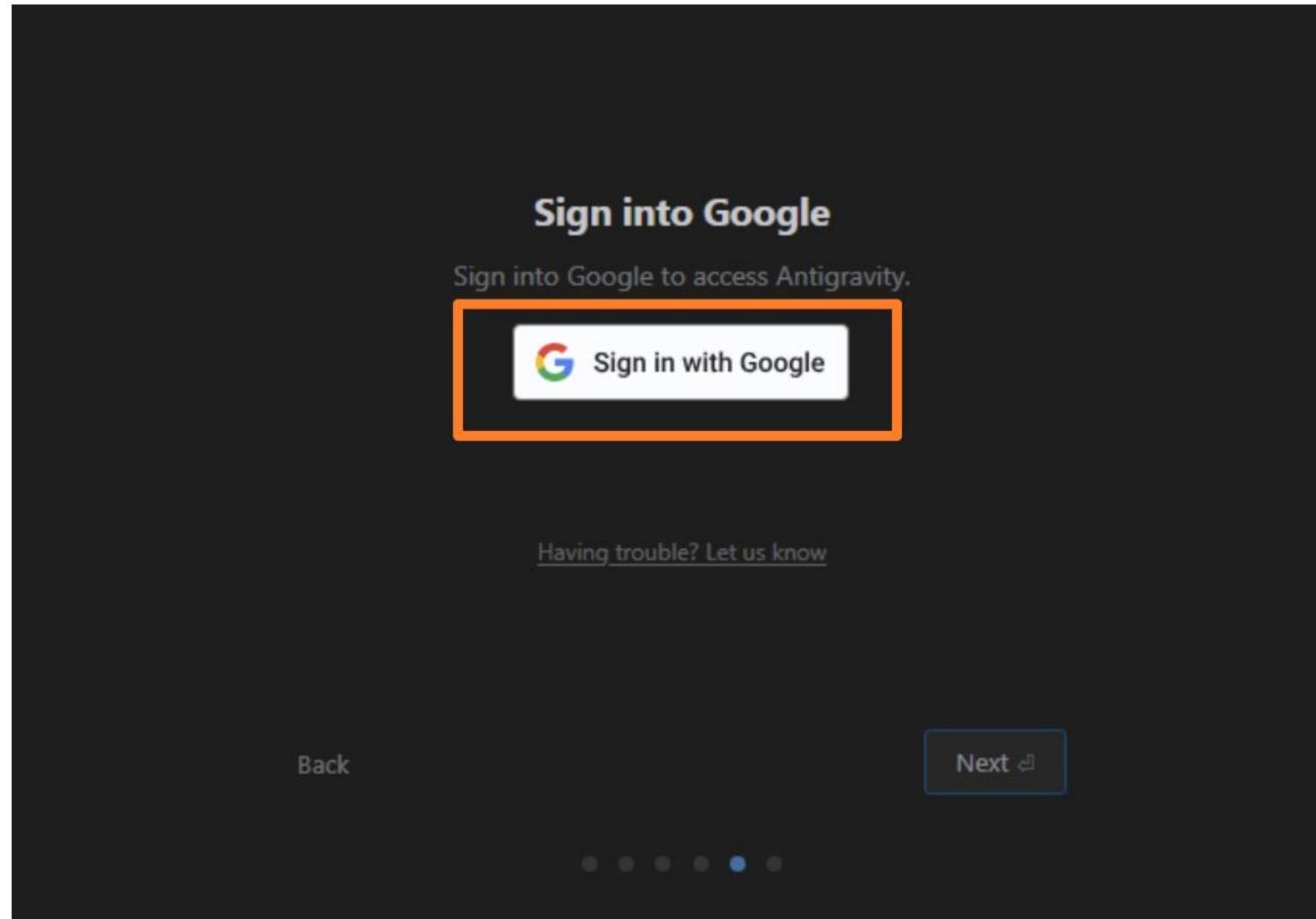
Keybindings
Configure your keybindings. To the right are two buttons: "Normal" (highlighted in blue) and "Vim".

Extensions
Install popular language extensions. Language extensions are required for some Agent features. Other extensions can be found on the marketplace in the editor. To the right are two buttons: "Recommended" (highlighted in blue) and "Configure".

At the bottom left is a "Back" button. At the bottom right is a "Next" button, which is highlighted with an orange border. A series of small dots at the very bottom center indicates this is part of a multi-step process.



Sign into Google





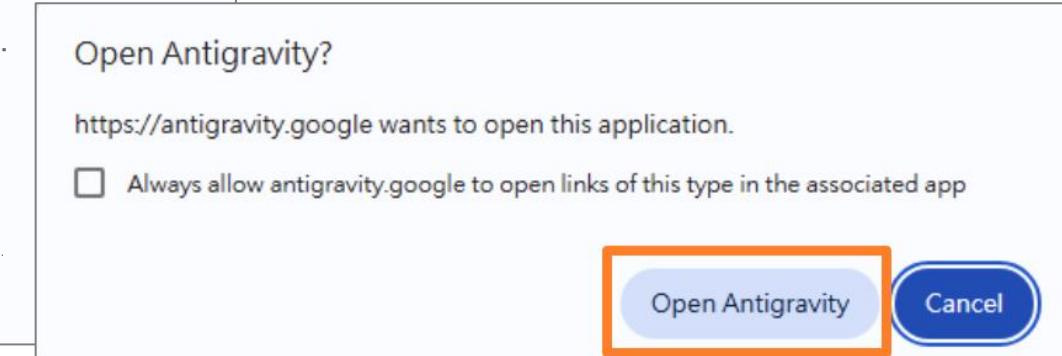
Authenticated

Google Antigravity

You have successfully authenticated.

You should be redirected back to the product. [Click here](#) if not working.

Docs | Twitter





Antigravity – Terms of Use

Antigravity - Terms of Use

Antigravity is known to have certain security limitations. Users should be aware of potential risks, including data exfiltration and possible code execution. Avoid processing highly sensitive data and verify all the actions taken by the agent.

- Yes, I agree to allow Google to collect and use my Interactions data as defined in the [Google Antigravity Terms of Service](#) and consistent with the [Google Privacy Policy](#), for the purpose of evaluating, developing, and improving Google and Alphabet research, products, services, and machine learning technologies. I understand I can withdraw my consent at any time by visiting my account settings or e-mailing Antigravity Support.

是否同意 Google 收集資料，
預設值**不用打勾**

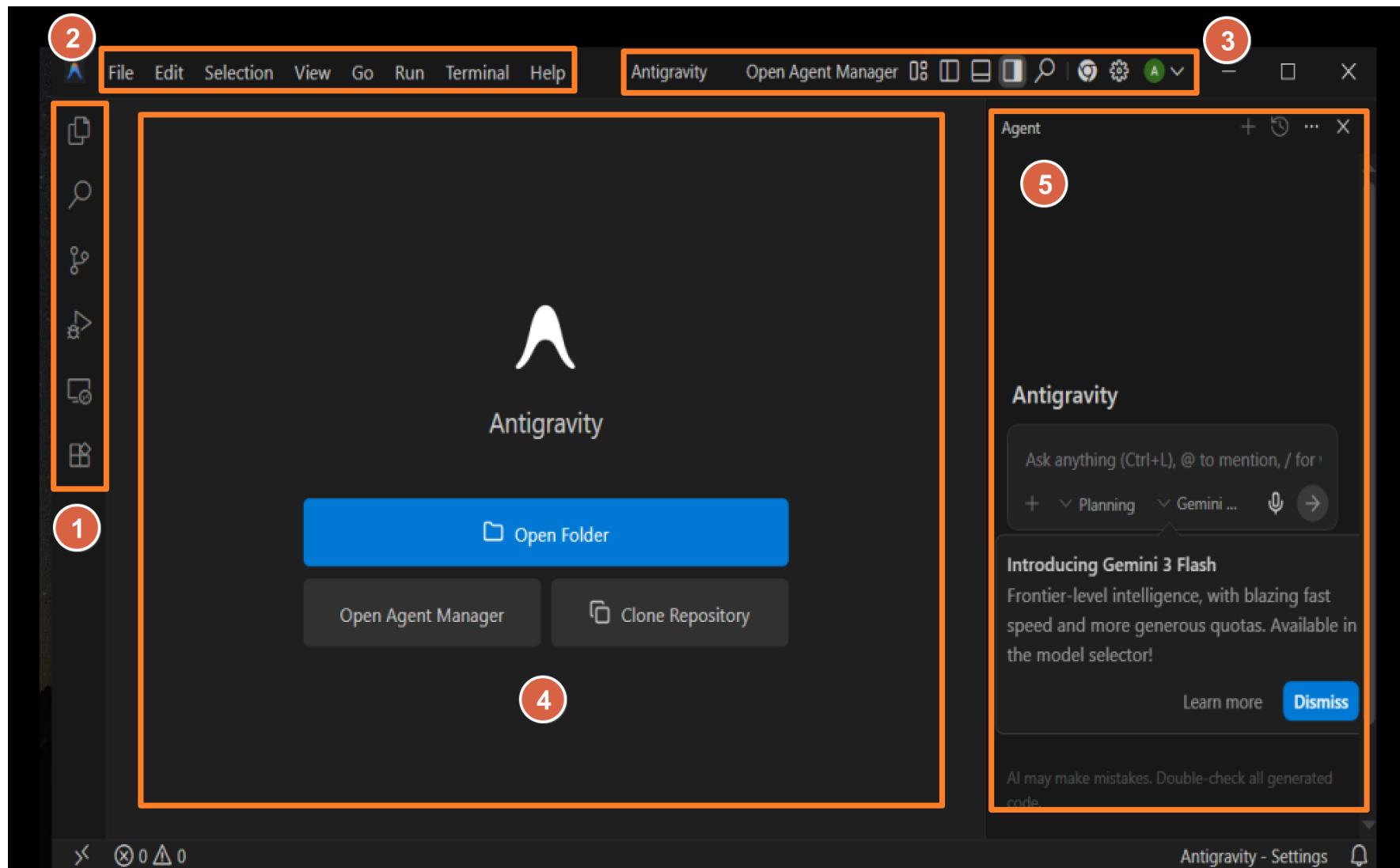
Back

Next 





Antigravity 開啟視窗

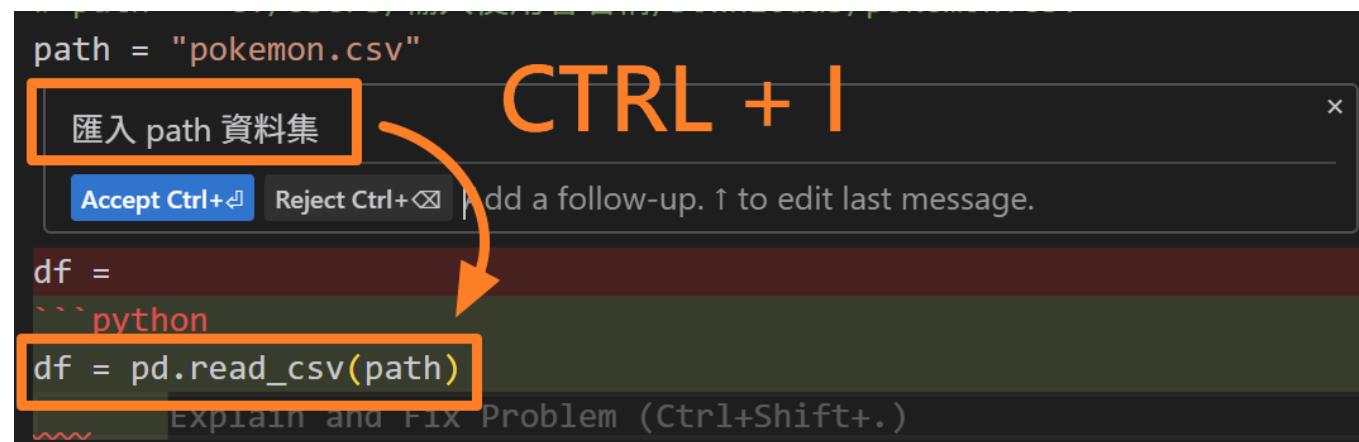


1. 活動欄 (Activity Bar)
2. 功能列
3. 工具列
4. 編輯區 (程式碼)
5. 代理區 (Agent)



Antigravity 快速鍵

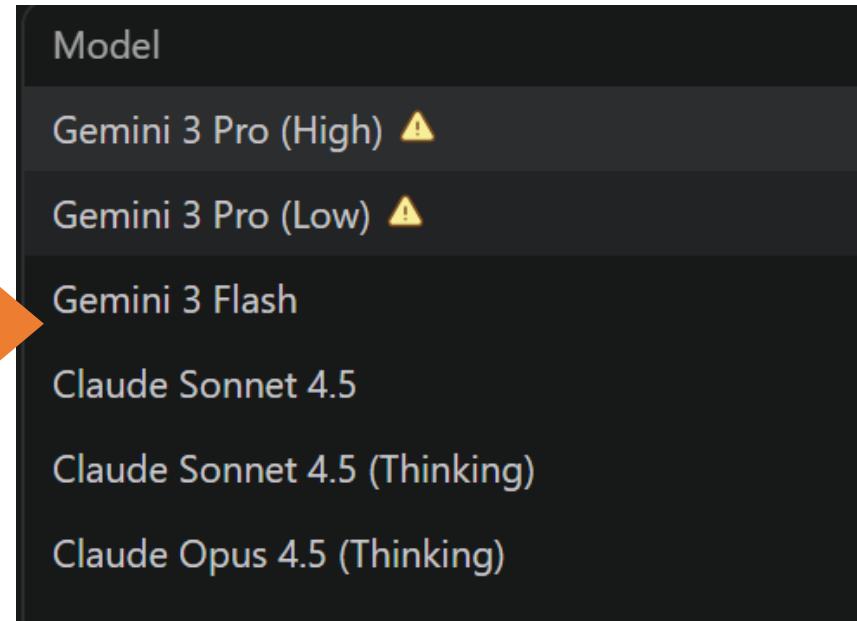
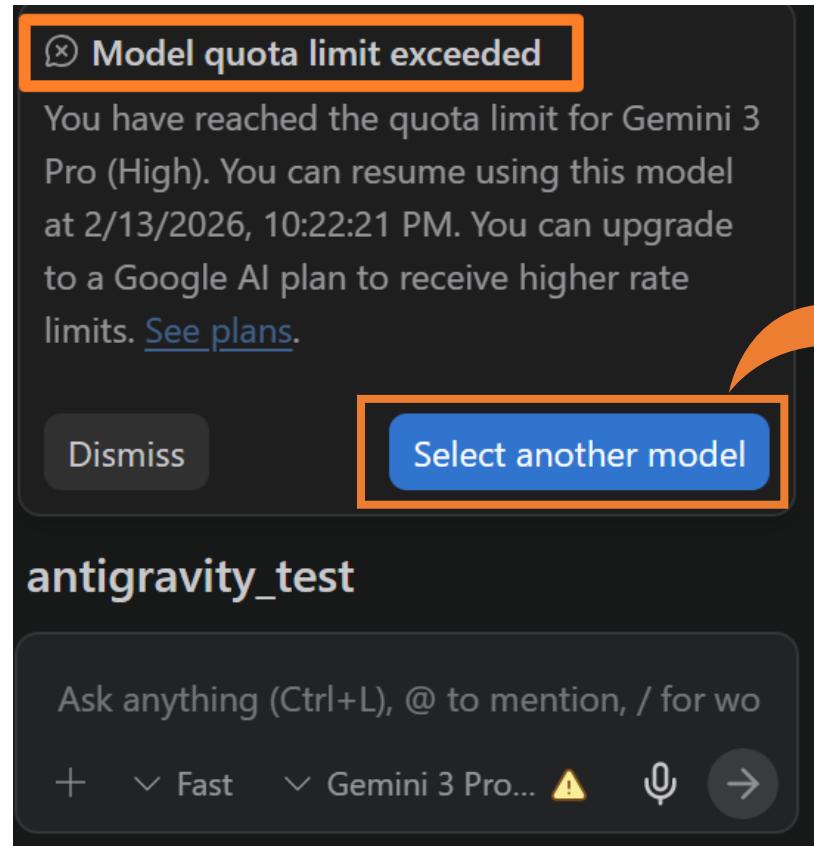
- Tab : 接受 Agent 生成結果
- Ctrl + L : 開啟右側代理視窗
- Ctrl + I : 程式碼中代理視窗



- Ctrl + E : Agent Manager 視窗



Model



The screenshot shows a comparison of two Google AI plans. On the left, the "Google AI Pro" plan is shown with a price of \$650/month for the first month, followed by \$0/month thereafter. It includes a "View plans" link, which is highlighted with an orange border. On the right, the "Google AI Ultra" plan is shown with a price of \$4,050/month for the first 3 months, followed by \$8,150/month thereafter. Both plans include a "取得 Google AI Pro" or "取得 Google AI Ultra" button at the bottom.

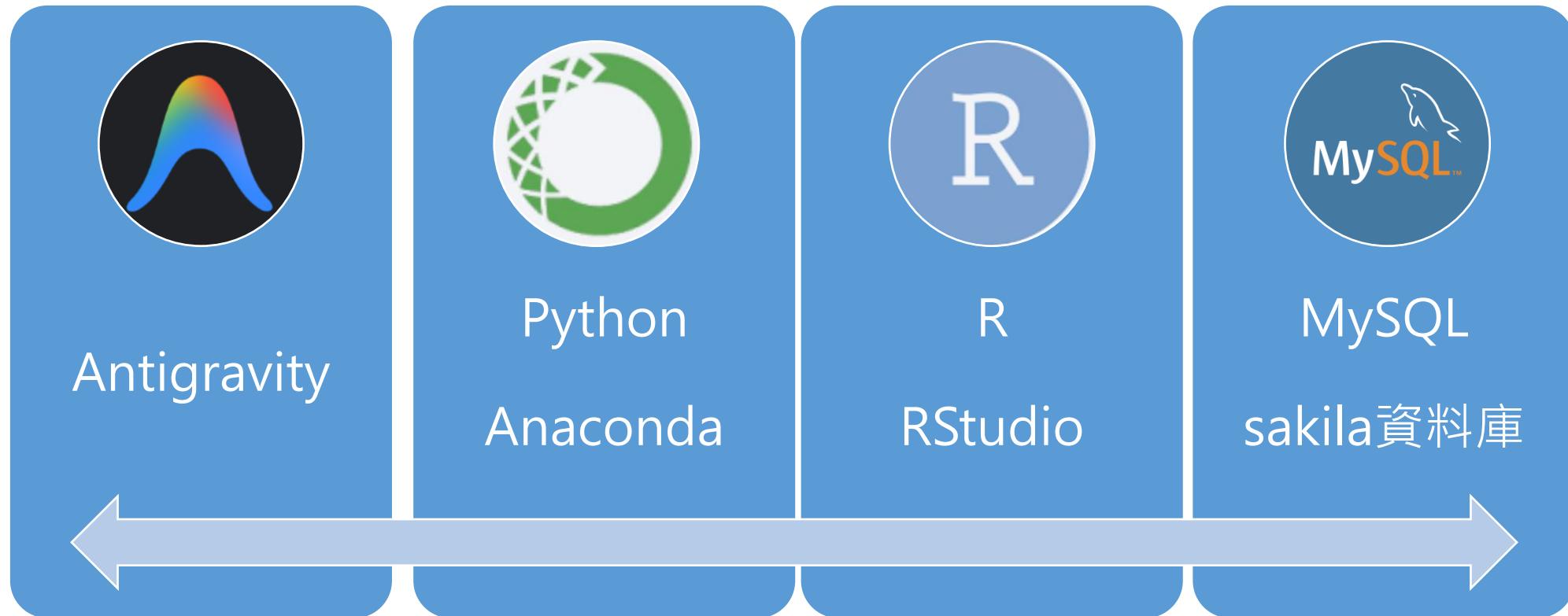
Plan	Price	Description
Google AI Pro	\$650/month (1st month), \$0/month (after)	解锁更多強大新功能，激發創意並提升工作效率 View plans
Google AI Ultra	\$4,050/month (1st 3 months), \$8,150/month (after)	享有最高權限，解鎖最強大的 Google AI 和多項專屬功能 取得 Google AI Ultra



3. 使用 Antigravity 事前準備



使用 Antigravity 事前準備



- Python + Anaconda: <https://youtu.be/te2pbxnbmvQ> [安裝教學: 1分40秒]
- R + RStudio: <https://youtu.be/IJupX5c3hi4> [安裝教學: 9分50秒]
- MySQL: <https://youtu.be/jsdM-y1nspQ> [安裝教學: 1分05秒]



4. Antigravity + Python + SQL



不佳範例

- 使用 Python 與 Streamlit 模組, 撰寫 mysql - sakila 資料庫的 rental 資料表的查詢網頁。





結構化 Python - Agent 範例



- 使用 Python 與 Streamlit 套件開發 MySQL sakila 資料庫的銷售查詢網頁應用程式，需求如下。

1. 資料來源

- 串接 MySQL 的 sakila 範例資料庫
- 使用 rental 資料表作為查詢來源

2. 查詢功能

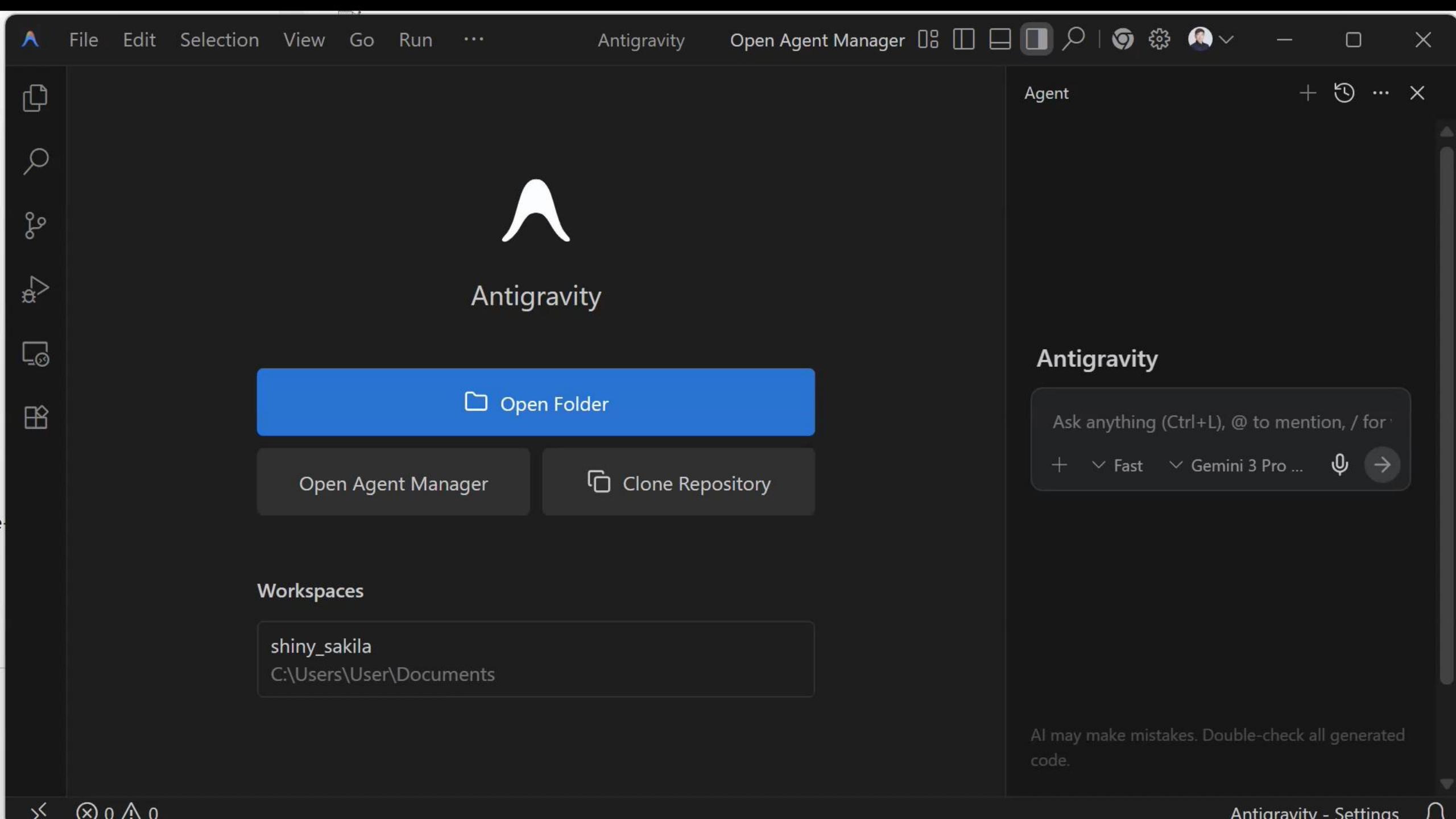
- 提供使用者可選擇的 rental_date 查詢日期範圍（起始日與結束日）
- 根據使用者輸入的日期區間，查詢並顯示符合條件的資料

3. 畫面呈現

- 使用 Streamlit 建立互動式網頁介面
- 將查詢結果以表格方式顯示在頁面上
- 介面需清楚呈現查詢條件與查詢結果
- 包括資料庫輸入使用者與密碼

4. 測試與驗證

- 撰寫對應的測試程式（例：資料庫連線測試、查詢邏輯測試）
- 自動或手動開啟瀏覽器，確認畫面與功能是否正確運作
- 程式碼需附上完整的註解說明





5.Antigravity + R + SQL



結構化 R - Agent 範例



- 使用 R 與 Shiny 套件開發 MySQL sakila 資料庫的銷售查詢網頁應用程式，需求如下。

1. 資料來源

- 串接 MySQL 的 sakila 範例資料庫
- 使用 rental 資料表作為查詢來源

2. 查詢功能

- 提供使用者可選擇的 rental_date 查詢日期範圍（起始日與結束日）
- 根據使用者輸入的日期區間，查詢並顯示符合條件的資料

3. 畫面呈現

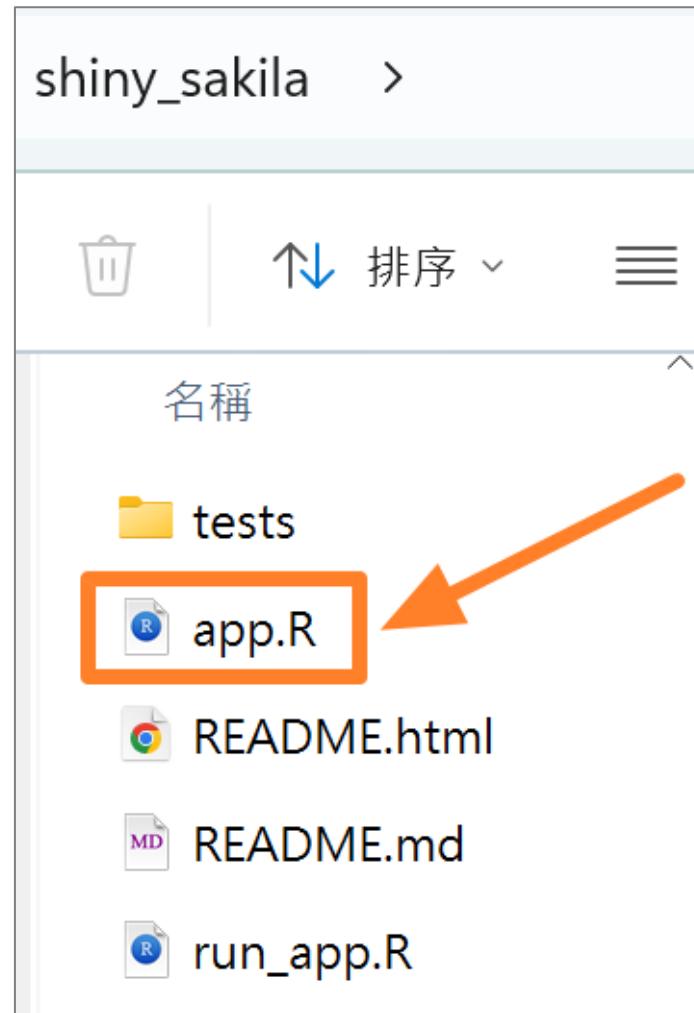
- 使用 Shiny 建立互動式網頁介面
- 將查詢結果以表格方式顯示在頁面上
- 介面需清楚呈現查詢條件與查詢結果
- 包括資料庫輸入使用者與密碼

4. 測試與驗證

- 撰寫對應的測試程式（例：資料庫連線測試、查詢邏輯測試）
- 自動或手動開啟瀏覽器，確認畫面與功能是否正確運作
- 程式碼需附上完整的註解說明



Antigravity + R + SQL 生成專案



Sakila Rental 檢索系統

查詢成功！共找到 8 筆資料。

rental_id	rental_date	inventory_id	customer_id	return_date	staff_id	last_update
1	2005-05-24T22:53:30Z	367	130	2005-05-26T22:04:30Z	1	2006-02-15T13:30:53Z
2	2005-05-24T22:54:33Z	1525	459	2005-05-28T19:40:33Z	1	2006-02-15T13:30:53Z
3	2005-05-24T23:03:39Z	1711	408	2005-06-01T22:12:39Z	1	2006-02-15T13:30:53Z
4	2005-05-24T23:04:41Z	2452	333	2005-06-03T01:43:41Z	2	2006-02-15T13:30:53Z
5	2005-05-24T23:05:21Z	2079	222	2005-06-02T04:33:21Z	1	2006-02-15T13:30:53Z
6	2005-05-24T23:08:07Z	2792	549	2005-05-27T01:32:07Z	1	2006-02-15T13:30:53Z
7	2005-05-24T23:11:53Z	3995	269	2005-05-29T20:34:53Z	2	2006-02-15T13:30:53Z
8	2005-05-24T23:31:46Z	2346	239	2005-05-27T23:33:46Z	2	2006-02-15T13:30:53Z



6. 結論



結論

- Antigravity 簡介
- Antigravity 安裝
- Antigravity + Python + R + MySQL
- 善用 AI 工具



程式設計
的邏輯
思維



謝謝您的聆聽

Q & A



李明昌

alan9956@gmail.com

<http://rwepa.blogspot.tw/>

<https://www.youtube.com/@alan9956>