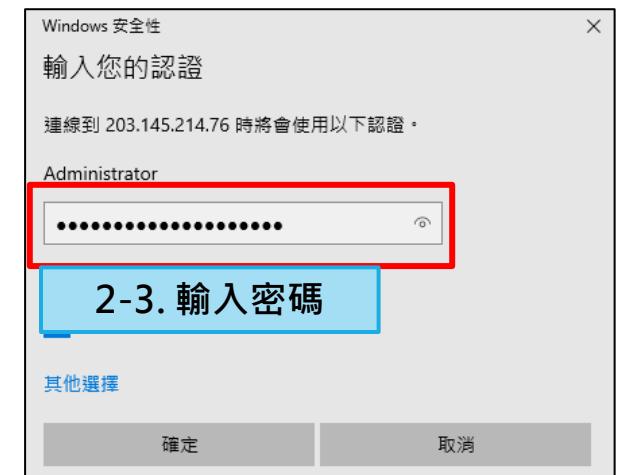
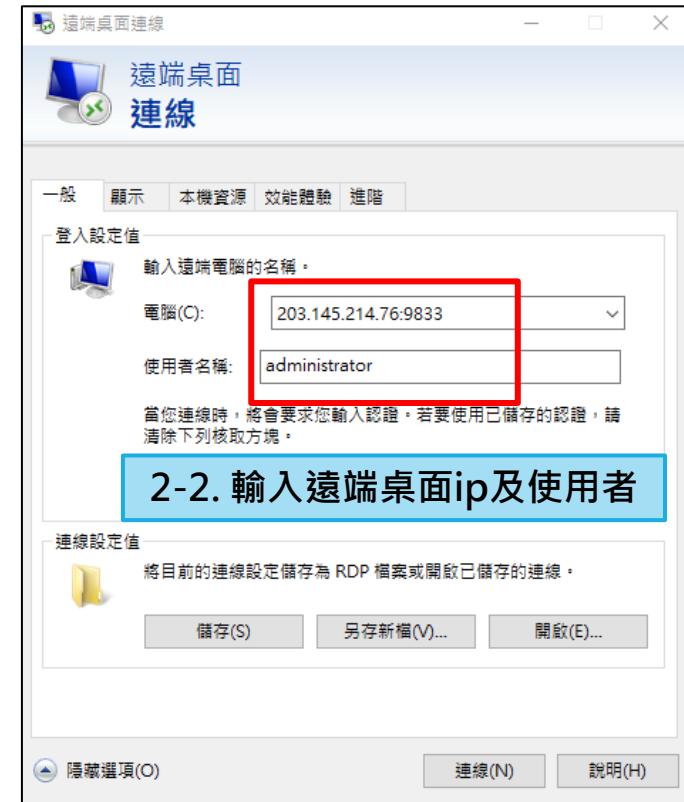
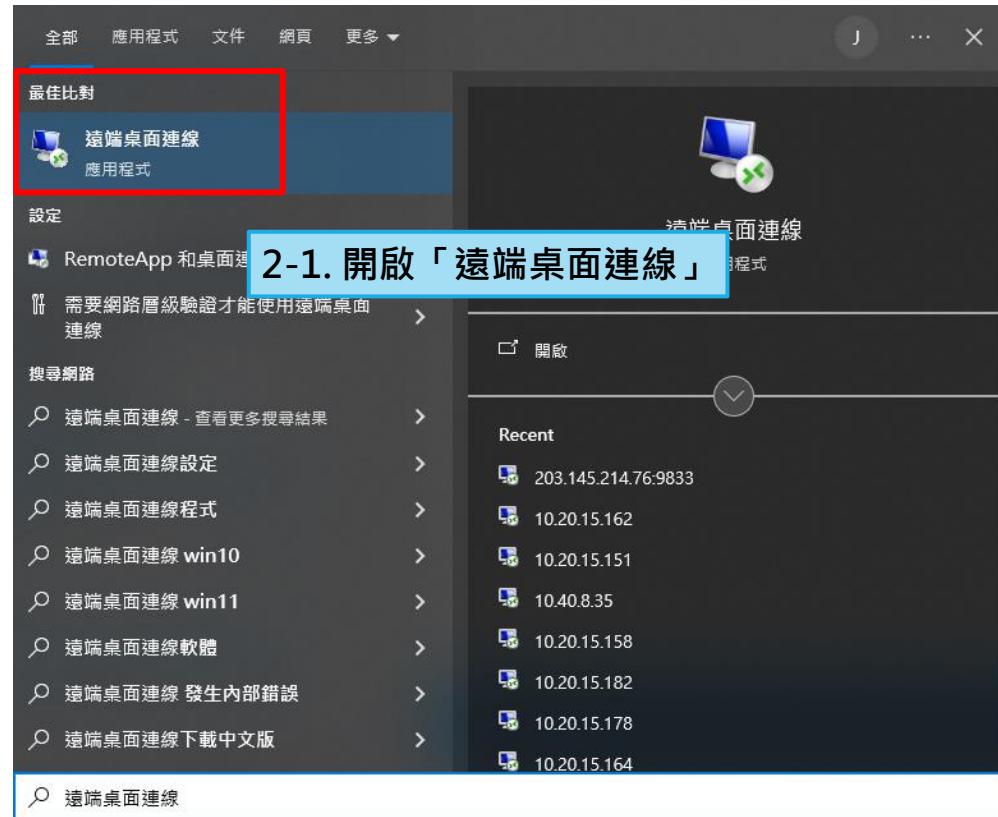


HAPI FHIR Server

WINDOWS

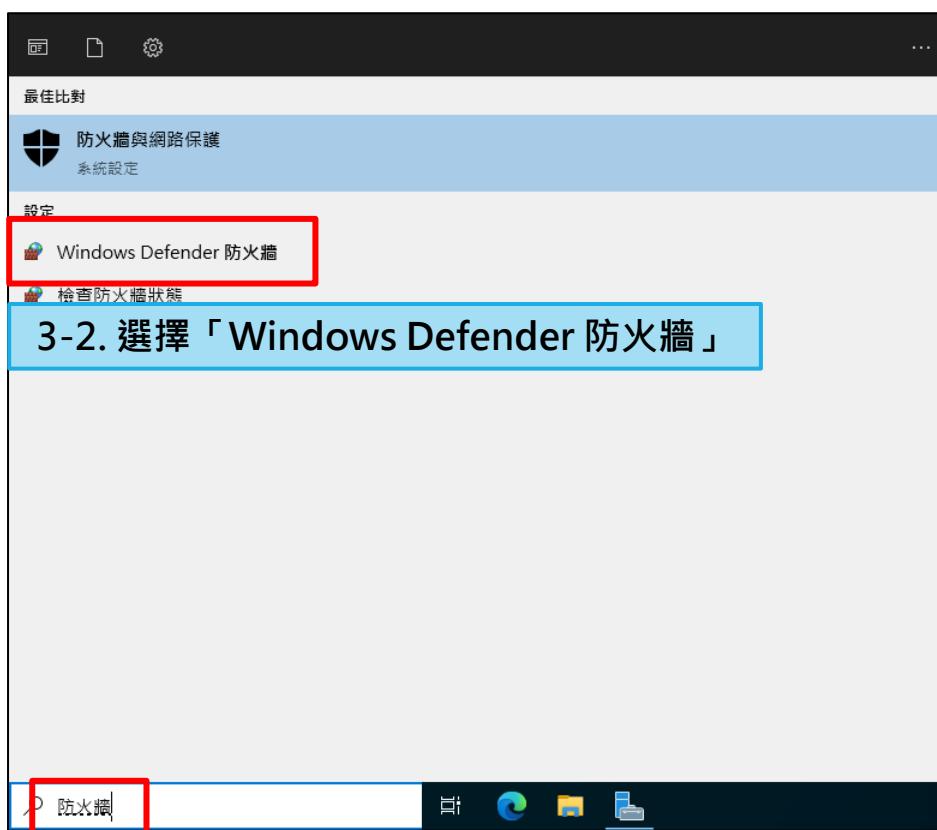
1. 準備一台Windows環境的電腦(或虛擬機)

2. 連線Windows遠端桌面(若使用本機則可以省略本步驟)



3. Windows開啟防火牆

後續步驟皆於要安裝HAPI FHIR Server
的電腦中操作



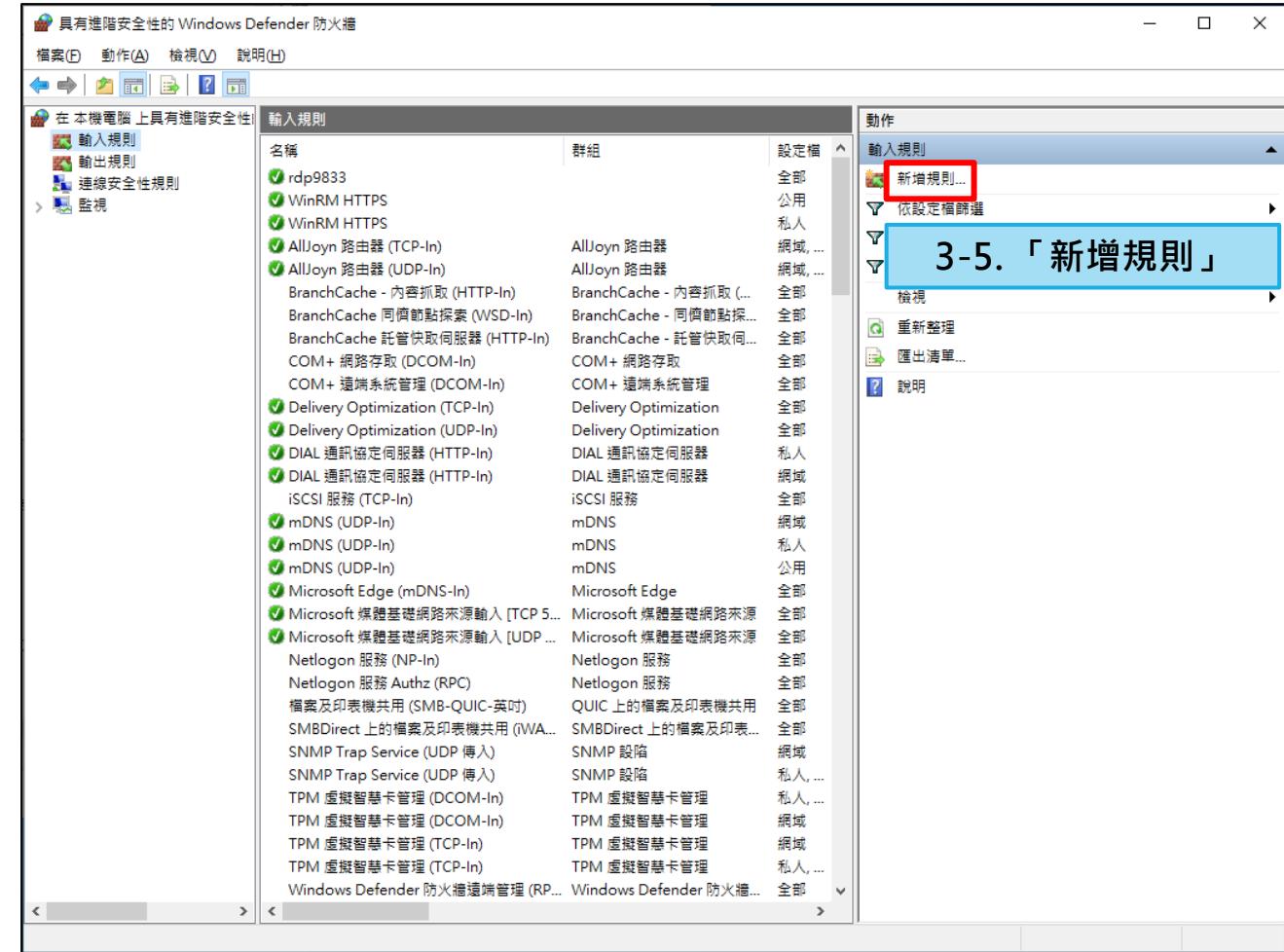
3-2. 選擇「Windows Defender 防火牆」



3-3. 選擇「進階設定」

3-1. 在「開始」中搜尋防火牆

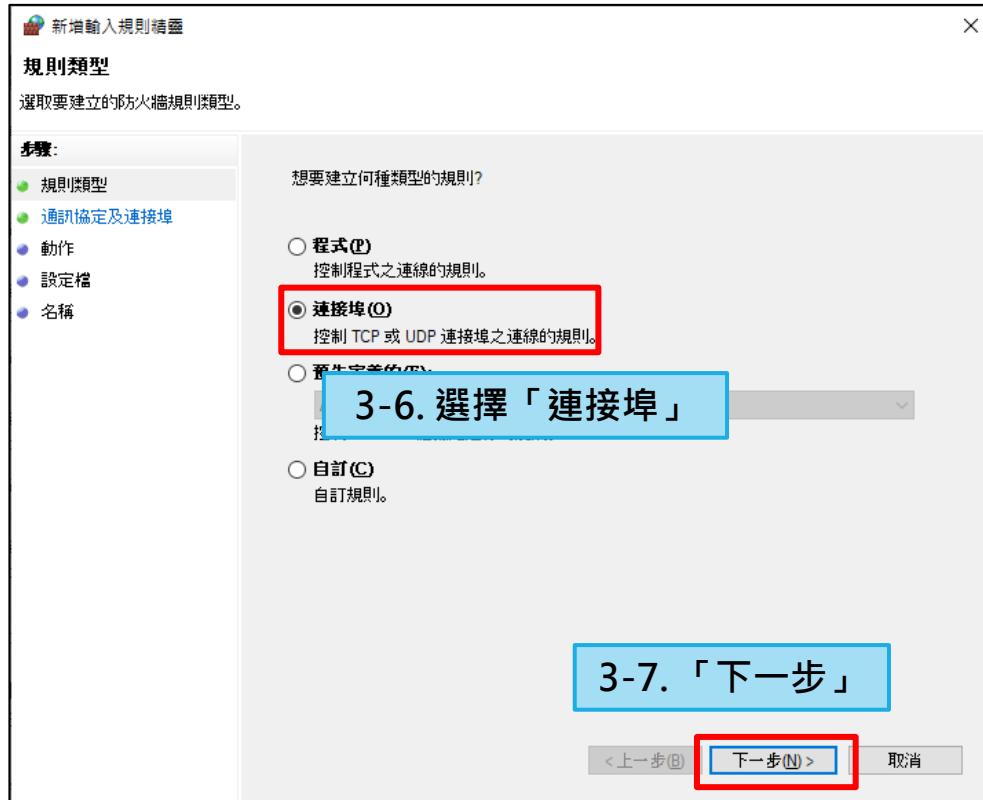
3. Windows開啟防火牆



3-4. 選擇「輸入規則」

3-5. 「新增規則」

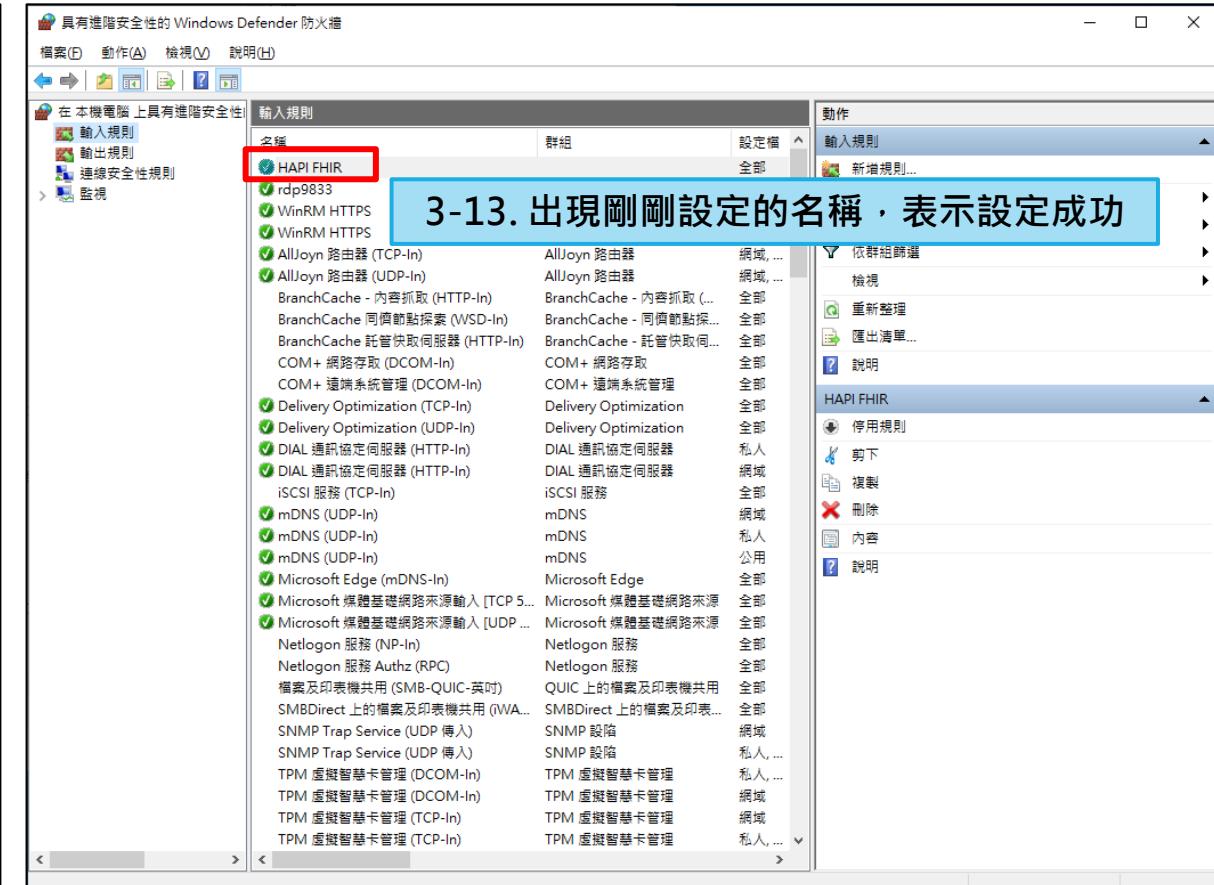
3. Windows開啟防火牆



3. Windows開啟防火牆



3. Windows開啟防火牆



4. 安裝jdk

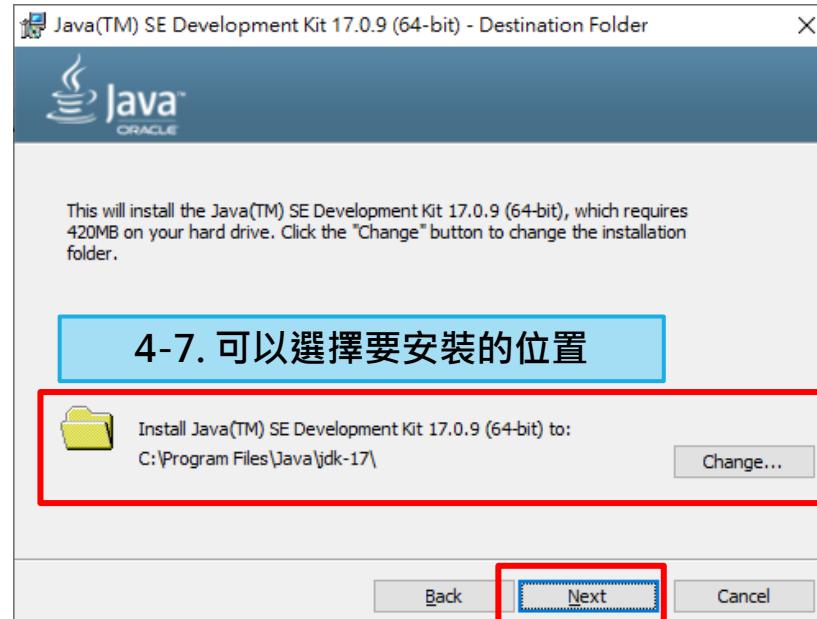
4-1. 在搜尋引擎中搜尋「jdk download」
或網址「<https://www.oracle.com/java/technologies/downloads/#jdk17-windows>」

The screenshot shows the Oracle Java Downloads page. At the top, there are tabs for 'Java downloads', 'Tools and resources', and 'Java archive'. Below the tabs, there's a search bar with the placeholder 'Looking for other Java downloads?' and buttons for 'OpenJDK Early Access Builds' and 'JRE for Consumers'. A Java icon is also present. The main content area features a banner for 'Java 21 and Java 17 available now'. It states that 'JDK 21 is the latest long-term support release of Java SE Platform.' Below this, there are links for 'JDK 21', 'JDK 17' (which is highlighted with a red box), 'GraalVM for JDK 21', and 'GraalVM for JDK 17'. A button 'Learn about Java SE Subscription' is visible. The 'JDK Development Kit 17.0.9 downloads' section is shown, with a sub-section for 'JDK 17 binary'. A blue box highlights the text '4-2. 選擇「JDK 17」版本'. Below this, it says 'JDK 17 will receive updates under the NFTC, until September 2024. Subsequent JDK 17 updates will be licensed under the Java SE OTN License (OTN) and production use limited free grants of the OTN license will require a fee.' Another blue box highlights the text '4-3. 選擇「Windows」版本'. The table below lists three download options: 'x64 Compressed Archive' (172.42 MB), 'x64 Installer' (153.51 MB), and 'x64 MSI Installer' (152.30 MB). The 'x64 Installer' link is highlighted with a red box and a blue box containing '4-4. 下載安裝檔'. The table columns are 'Product/file description', 'File size', and 'Download'.

Product/file description	File size	Download
x64 Compressed Archive	172.42 MB	https://download.oracle.com/java/17/latest/jdk-17_windows-x64_bin.zip (sha256)
x64 Installer	153.51 MB	https://download.oracle.com/java/17/latest/jdk-17_windows-x64_bin.exe (sha256)
x64 MSI Installer	152.30 MB	https://download.oracle.com/java/17/latest/jdk-17_windows-x64_bin.msi (sha256)

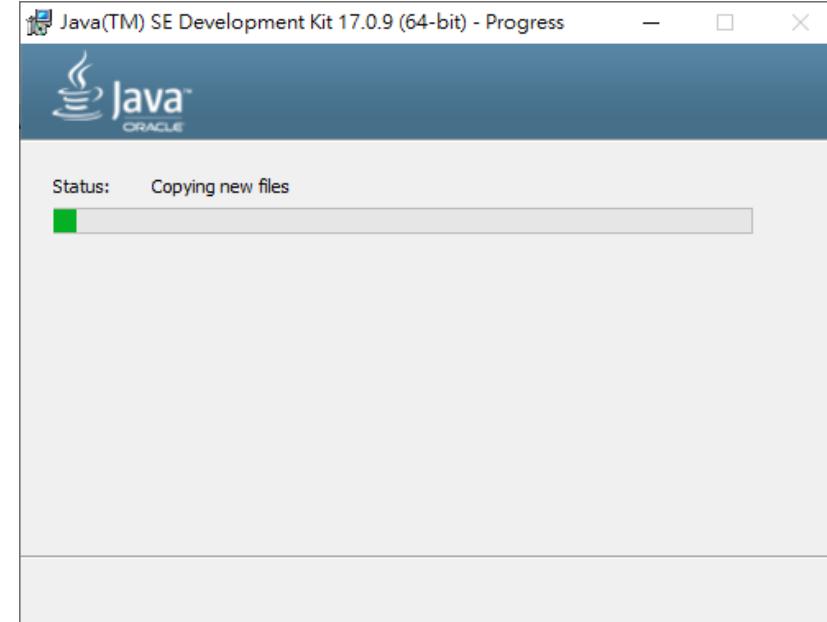


4. 安裝jdk



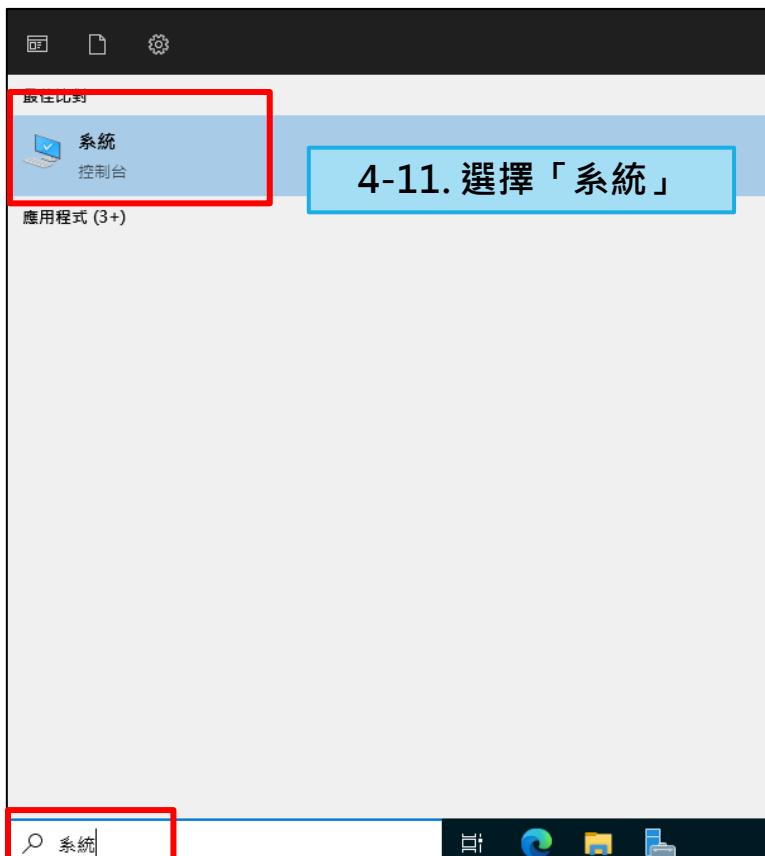
4-6. 「Next」

4-8. 更改完可以「Next」



4-9. 安裝完成就可以關閉

4. 安裝jdk



4-10. 在「開始」中搜尋系統

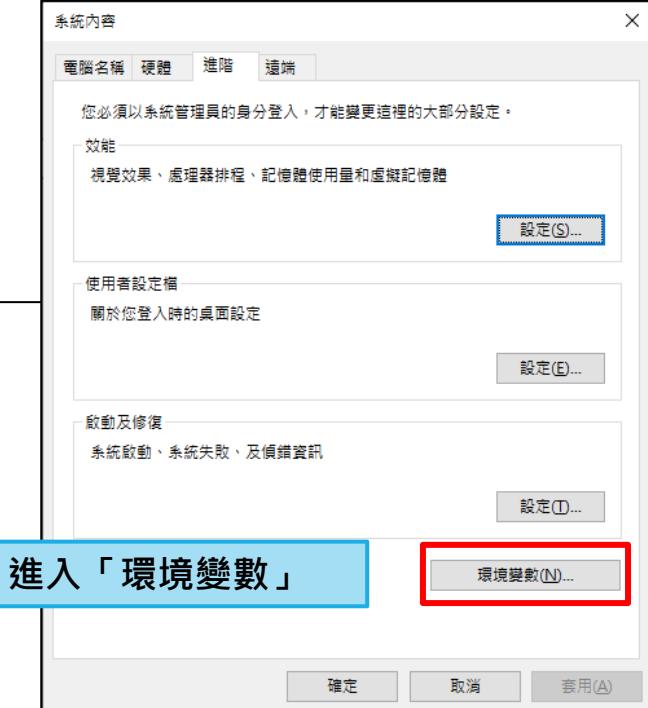


4-12. 進入「進階系統設定」

進階系統設定

重新命名此電腦 (進階)

圖形設定



4-13. 進入「環境變數」

環境變數(N)...

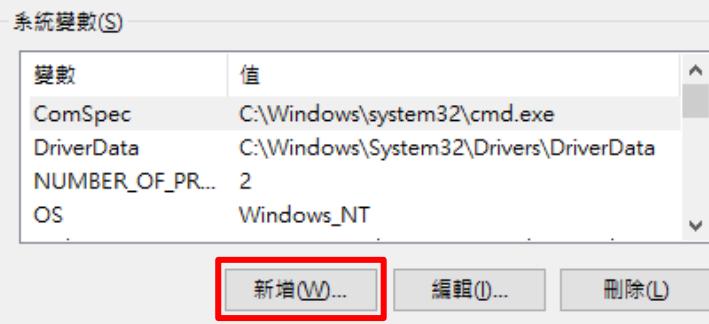
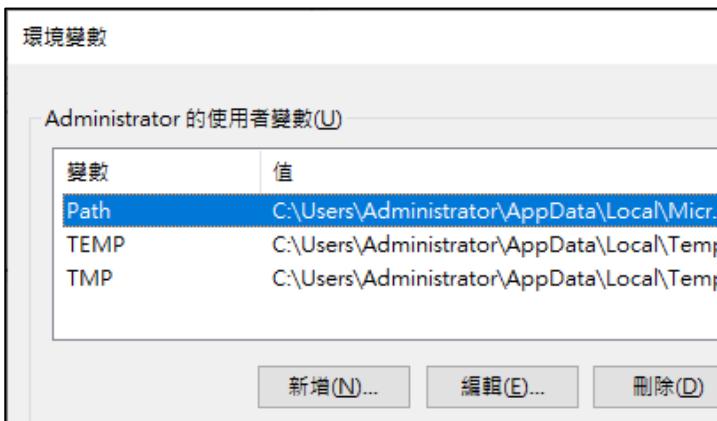
4-11. 選擇「系統」

確定

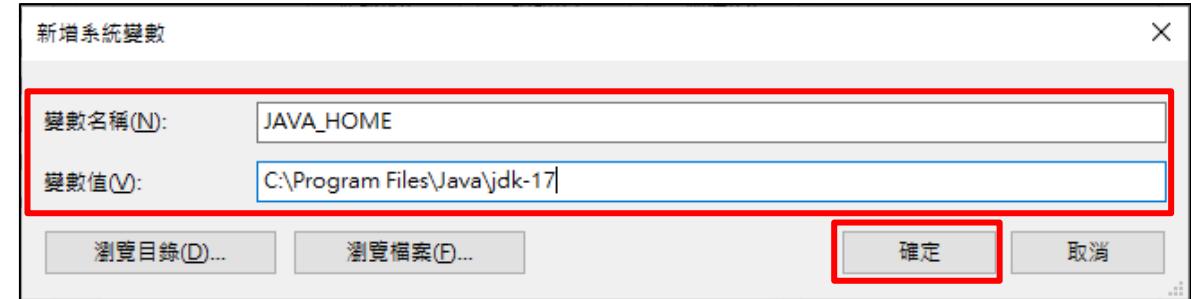
取消

套用(A)

4. 安裝jdk

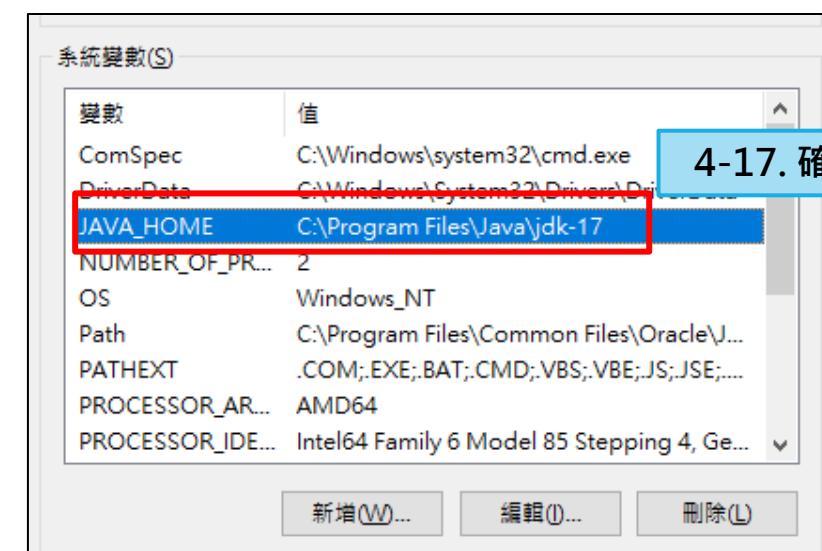


4-14. 「新增」系統變數



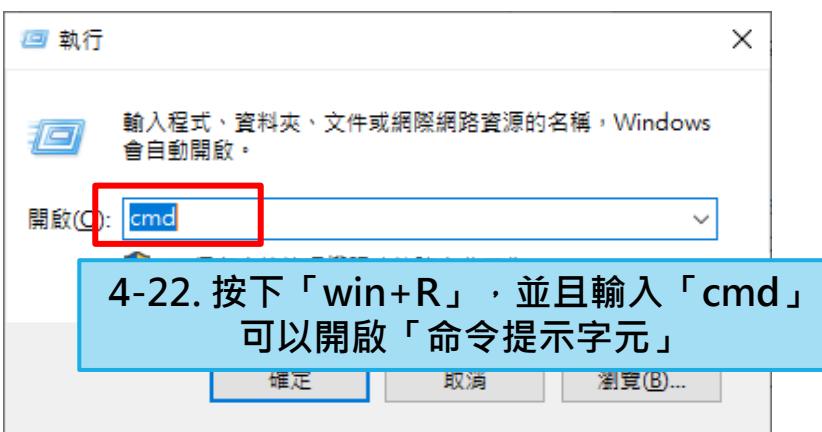
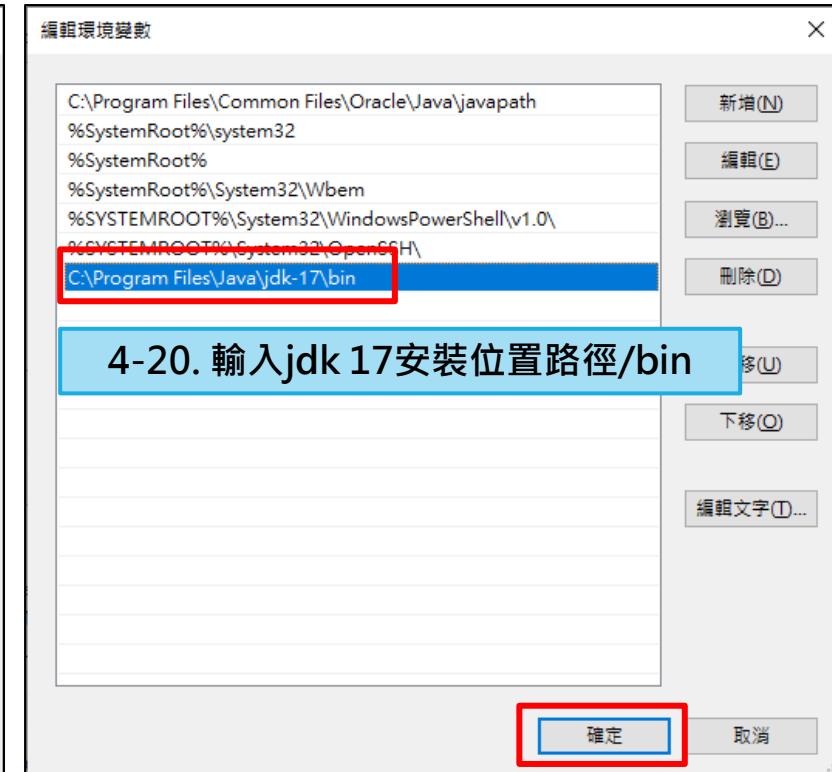
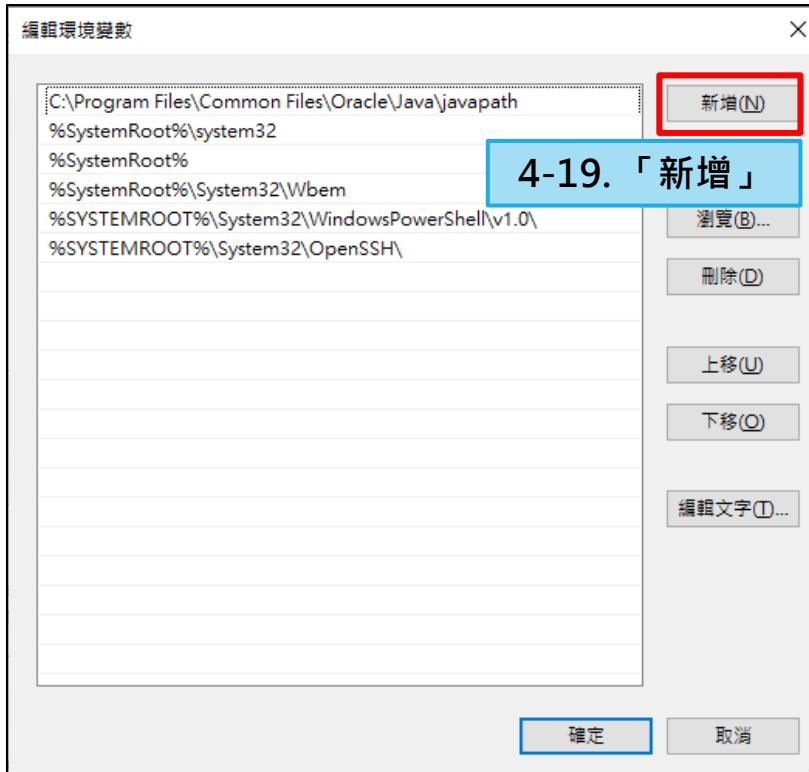
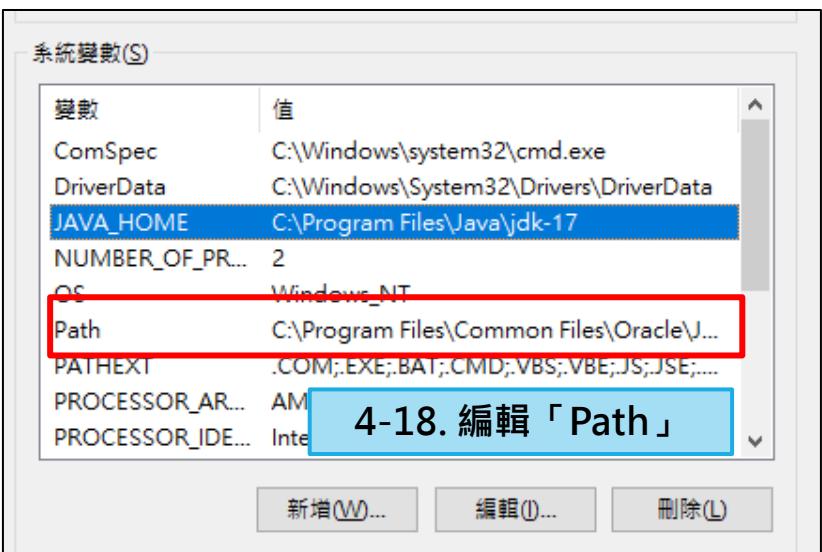
4-16. 「確定」

變數名稱：「JAVA_HOME」
變數值：剛剛 4-7. 步驟中安裝的位置絕對路徑



4-17. 確認是否有剛剛新增的內容

4. 安裝jdk



5. 下載Maven

5-1. 在搜尋引擎中搜尋「maven download」
或網址「<https://maven.apache.org/download.cgi?..>」

The screenshot shows the Apache Maven Project download page. On the left is a sidebar with navigation links. The main content area has a large heading 'Downloading Apache Maven 3.9.6'. Below it are two sections: 'System Requirements' and 'Files'.

System Requirements:

- Java Development Kit (JDK)**: Maven 3.9+ requires JDK 8 or above to execute. It still allows you to build against 1.3 and other JDK versions by using toolchains.
- Memory**: No minimum requirement.
- Disk**: Approximately 10MB is required for the Maven installation itself. In addition to that, disk space will be used for your local Maven repository. The size of your local repository will vary depending on usage but expect at least 500MB.
- Operating System**: No minimum requirement. Start up scripts are included as shell scripts (tested on many Unix flavors) and Windows batch files.

Files:

Maven is distributed in several formats for your convenience. Simply pick a ready-made binary distribution archive and follow the [installation instructions](#). Use a source archive if you intend to build Maven yourself.

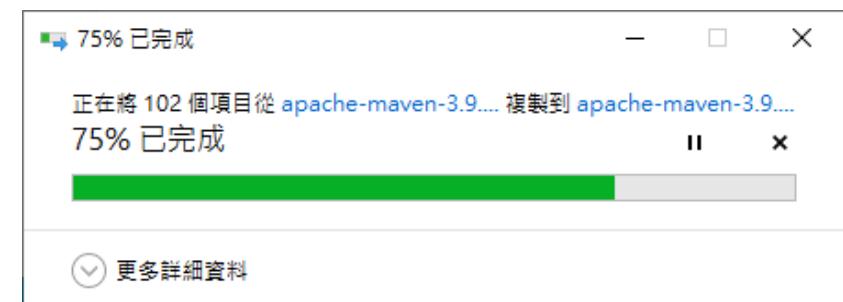
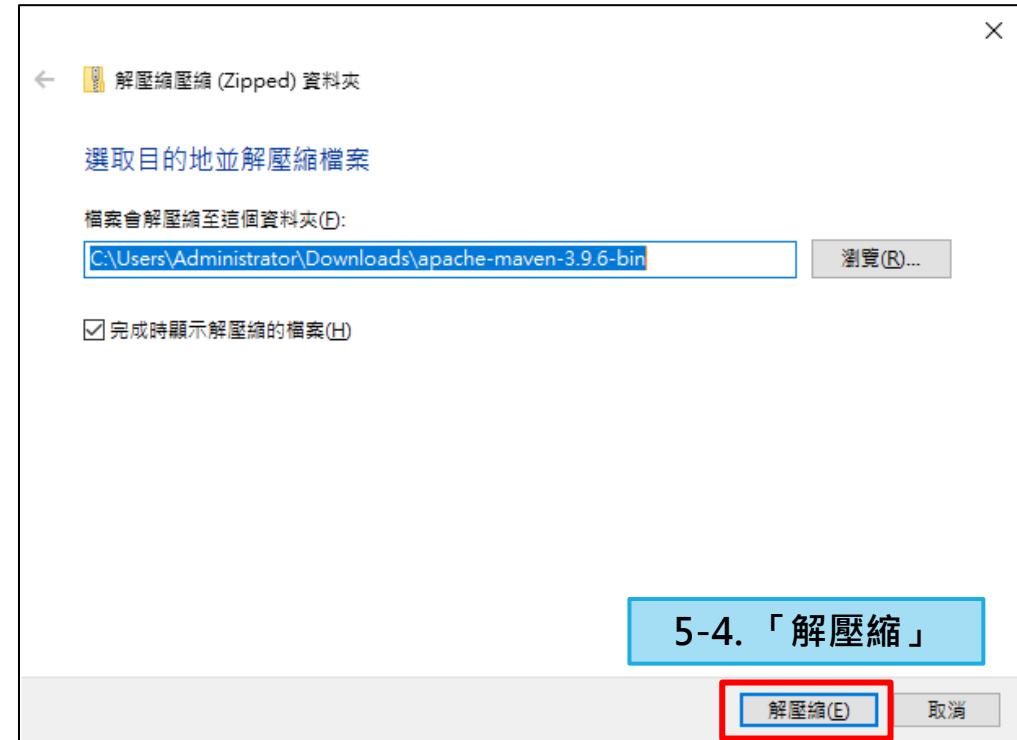
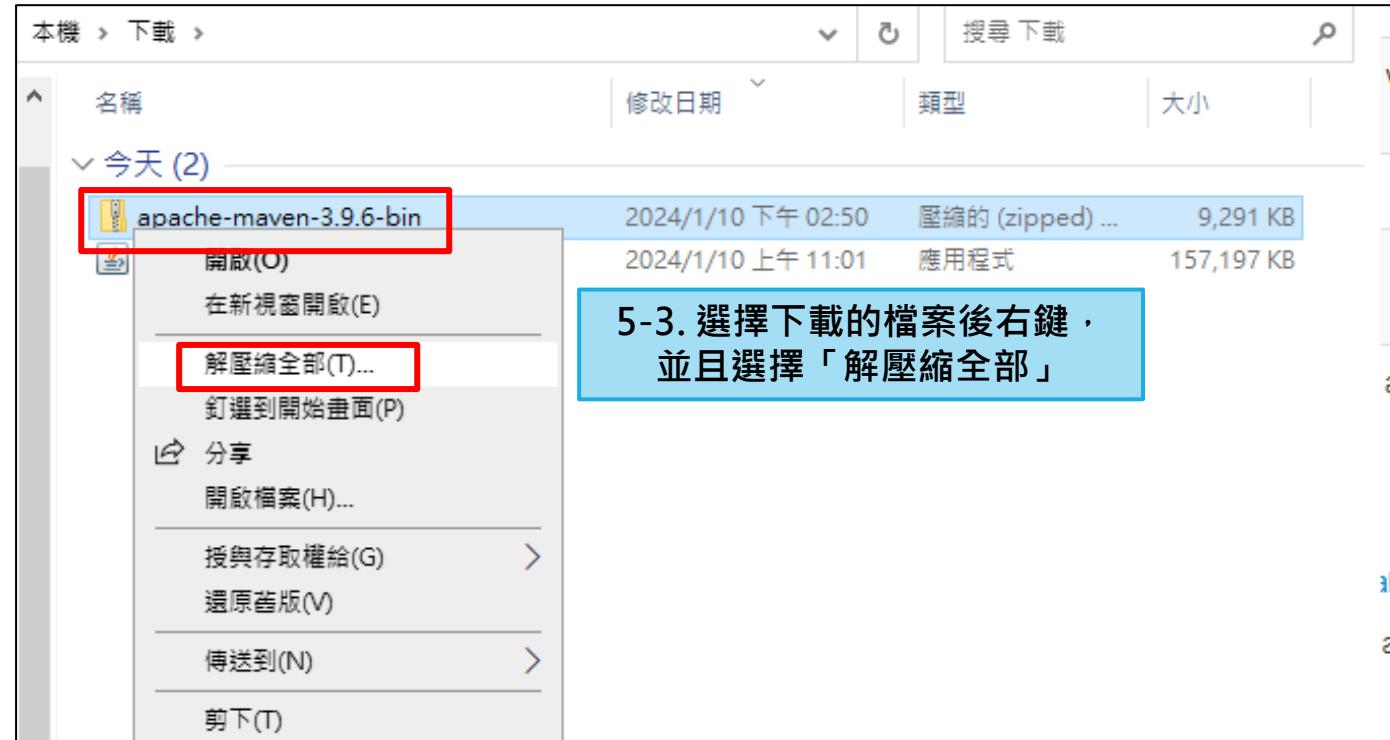
In order to guard against corrupted downloads/installations, it is highly recommended to verify the [signature](#) of the release bundles against the public [KEYS](#) used by the Apache Maven developers.

	Link	Checksums	Signature
Binary tar.gz archive	apache-maven-3.9.6-bin.tar.gz	apache-maven-3.9.6-bin.tar.gz.sha512	apache-maven-3.9.6-bin.tar.gz.asc
Binary zip archive	apache-maven-3.9.6-bin.zip	apache-maven-3.9.6-bin.zip.sha512	apache-maven-3.9.6-bin.zip.asc
Source tar.gz archive	apache-maven-3.9.6-src.tar.gz	apache-maven-3.9.6-src.tar.gz.sha512	apache-maven-3.9.6-src.tar.gz.asc
Source zip archive		apache-maven-3.9.6-src.zip.sha512	apache-maven-3.9.6-src.zip.asc

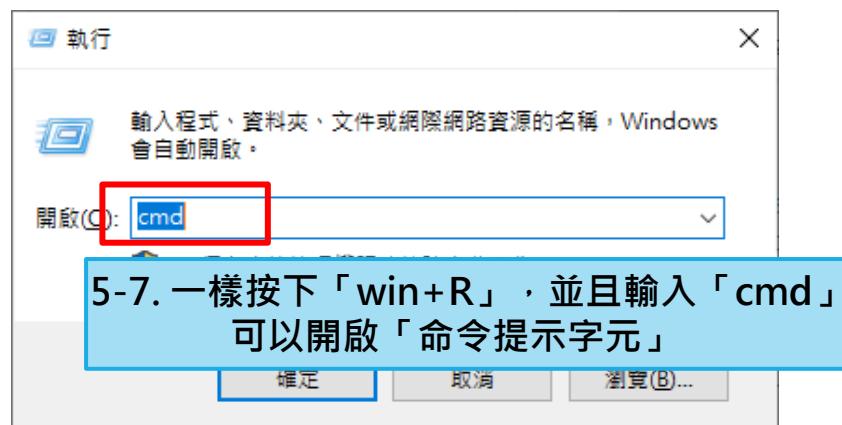
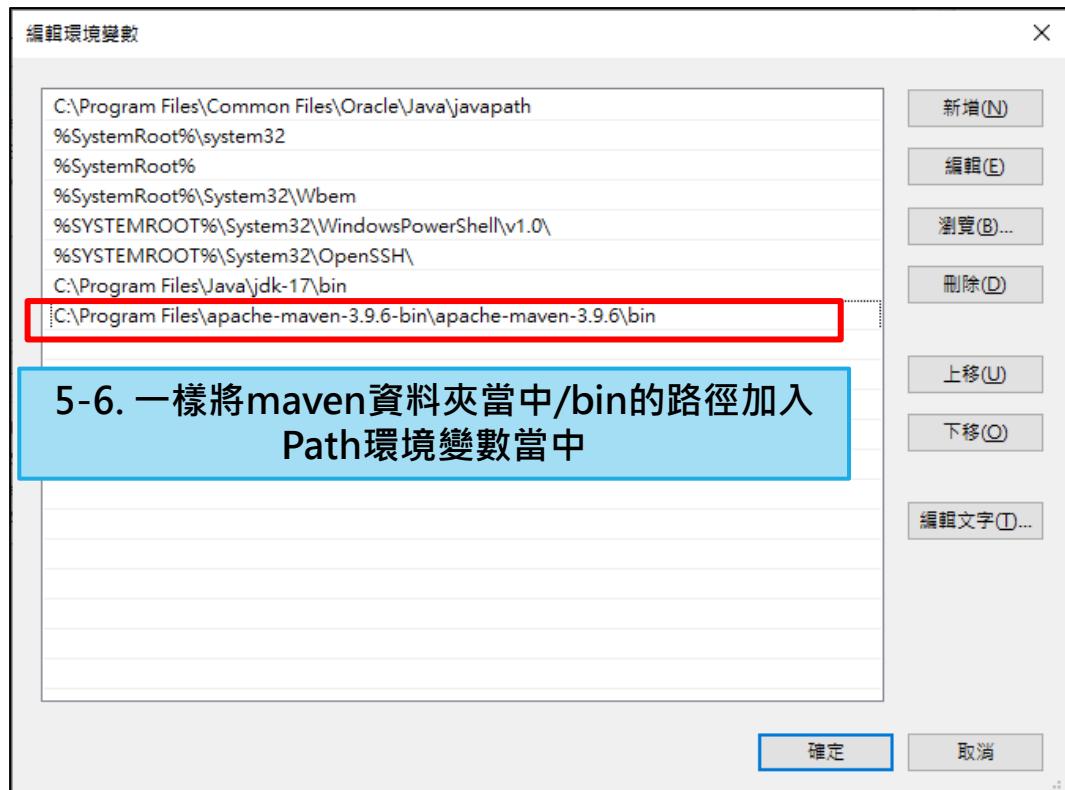
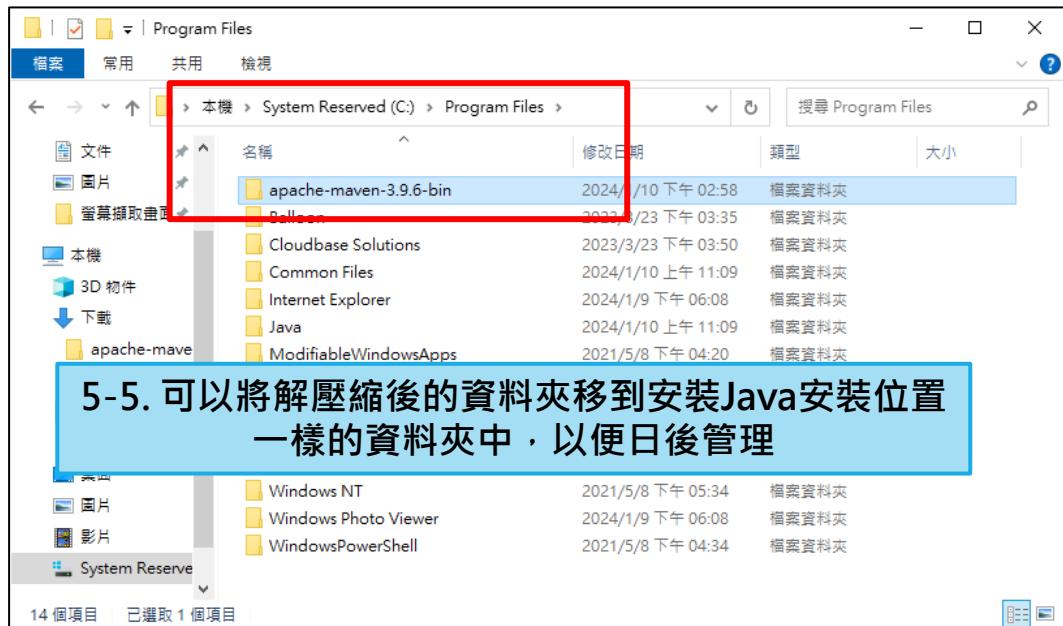
5-2. 下載zip版本

- [3.9.6 Release Notes](#) and [Release Reference Documentation](#)
- [latest source code from source repository](#)
- Distributed under the [Apache License, version 2.0](#)
- other:
 - [Apache Maven Website As Documentation Archive](#)
 - [All current release sources \(plugins, shared libraries,...\) available at https://downloads.apache.org/maven/](#)

5. 下載 Maven



5. 下載Maven



6. 安裝PostgreSQL

6-1. 在搜尋引擎中搜尋「PostgreSQL download」或網址「<https://www.postgresql.org/download/windows/>」

Downloads

PostgreSQL Downloads

PostgreSQL is available for download as ready-to-use packages or installers for various platforms, as well as a source code archive if you want to build it yourself.

Packages and Installers

Select your operating system family:



Source code

The source code can be found in the main file browser or you

documentation.

Beta/RC Releases and development snapshots (unstable)

There are source code and binary packages of beta and release candidates, and of the current development code available for testing and evaluation of new features used for testing purposes only, and not for production systems.

3rd party distributions

Windows installers

Interactive installer by EDB

[Download the installer](#) certified by EDB for all supported PostgreSQL versions.

6-3. 下載installer

... and not on the PostgreSQL community servers. If you

This installer can run in graphical or silent install modes.

The installer is designed to be a straightforward, fast way to get up and running with Pos

Advanced users can also download a zip archive of the binaries, without the installer. Th

6-2. 下載windows版本

Download PostgreSQL

Open source PostgreSQL packages and installers from EDB

6-4. 下載最新版本

PostgreSQL Version	Linux x86-64	Linux x86-32	Mac OS X	Windows x86-64	Windows x86-32
16.1	postgresql.org				
15.5	postgresql.org				
14.10	postgresql.org				
13.13	postgresql.org				
12.17	postgresql.org				

Not supported

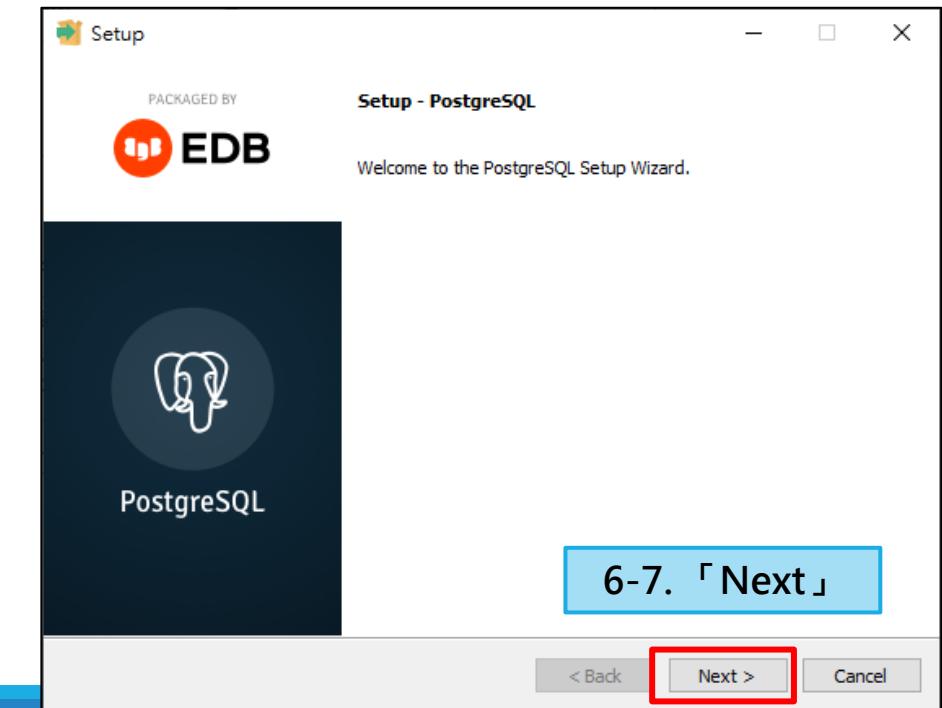
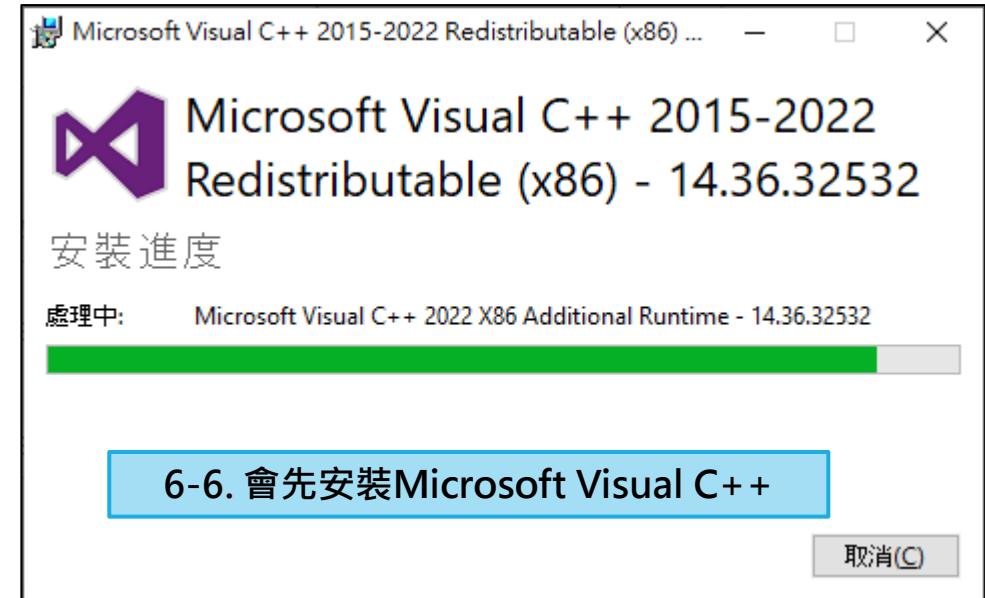
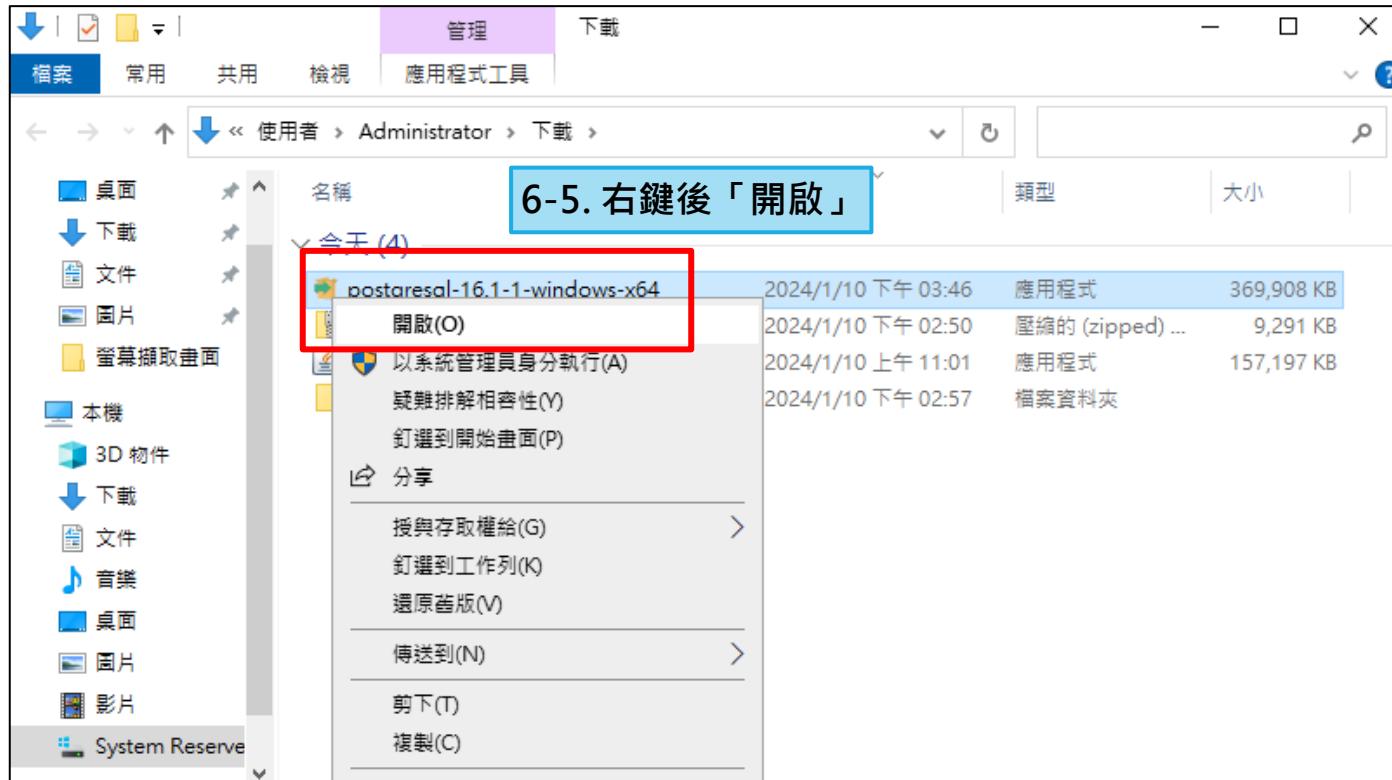
Not supported

Not supported

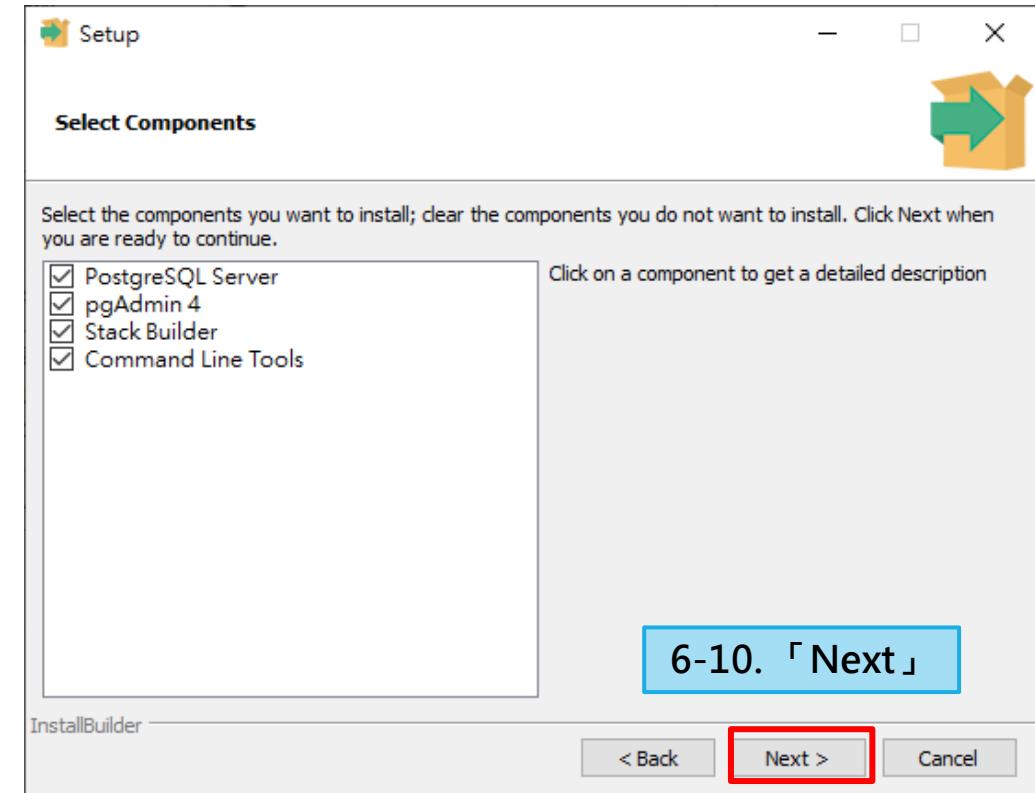
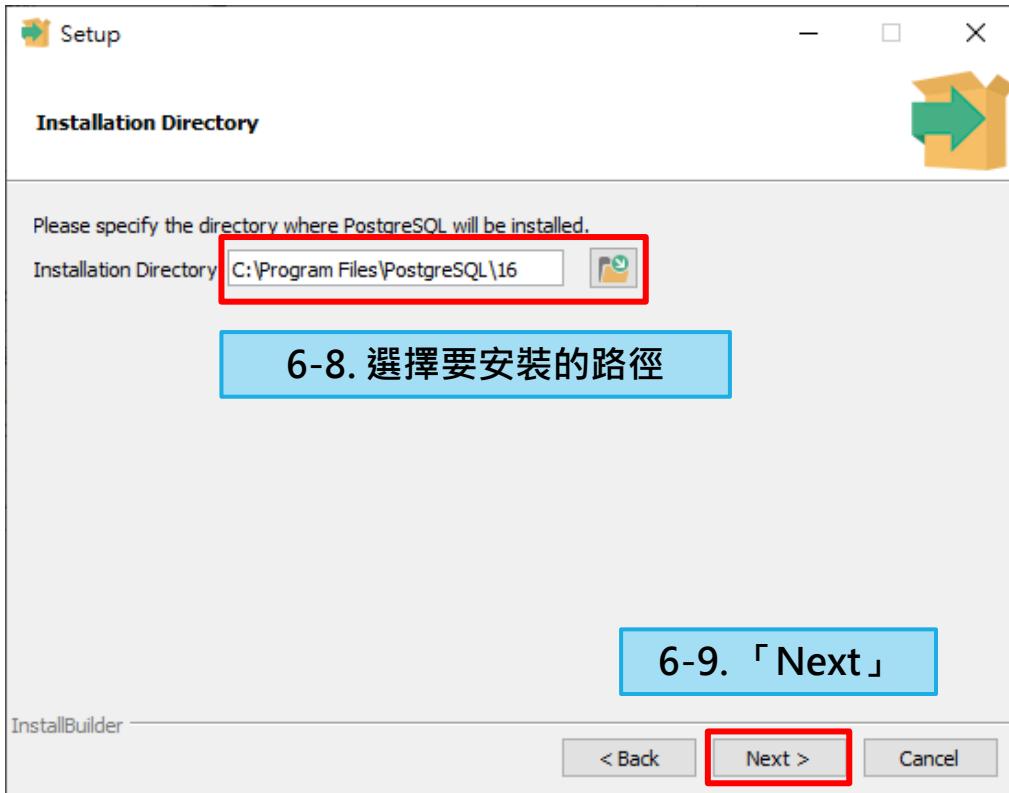
Not supported

Not supported

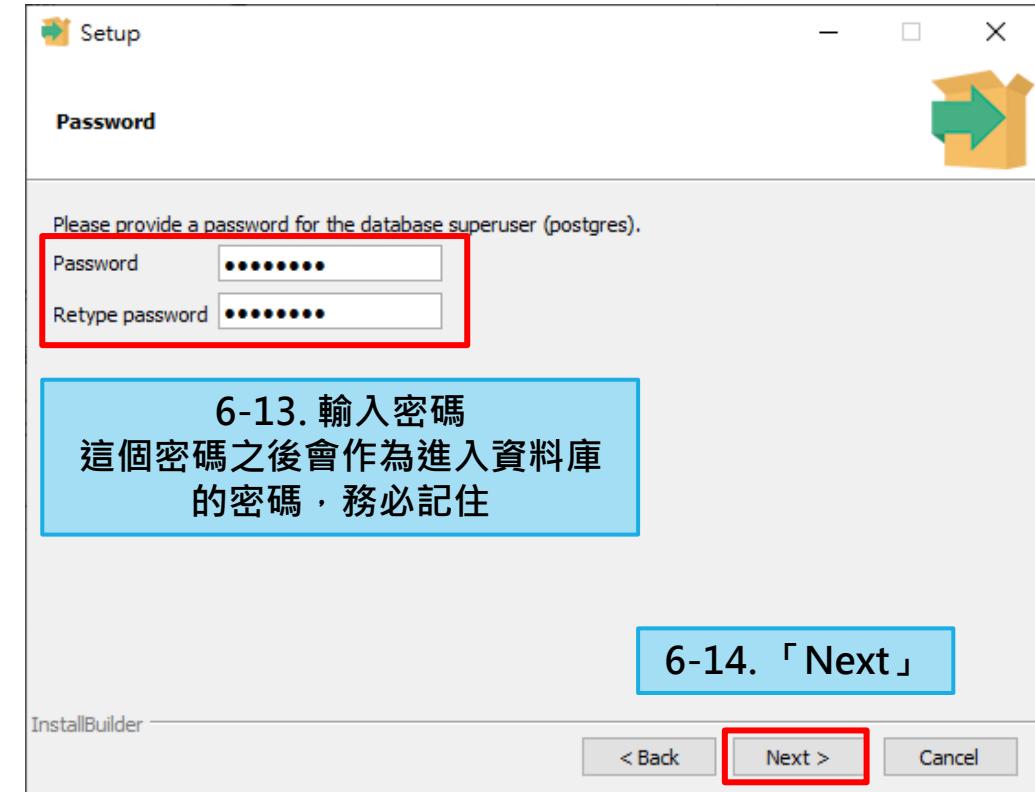
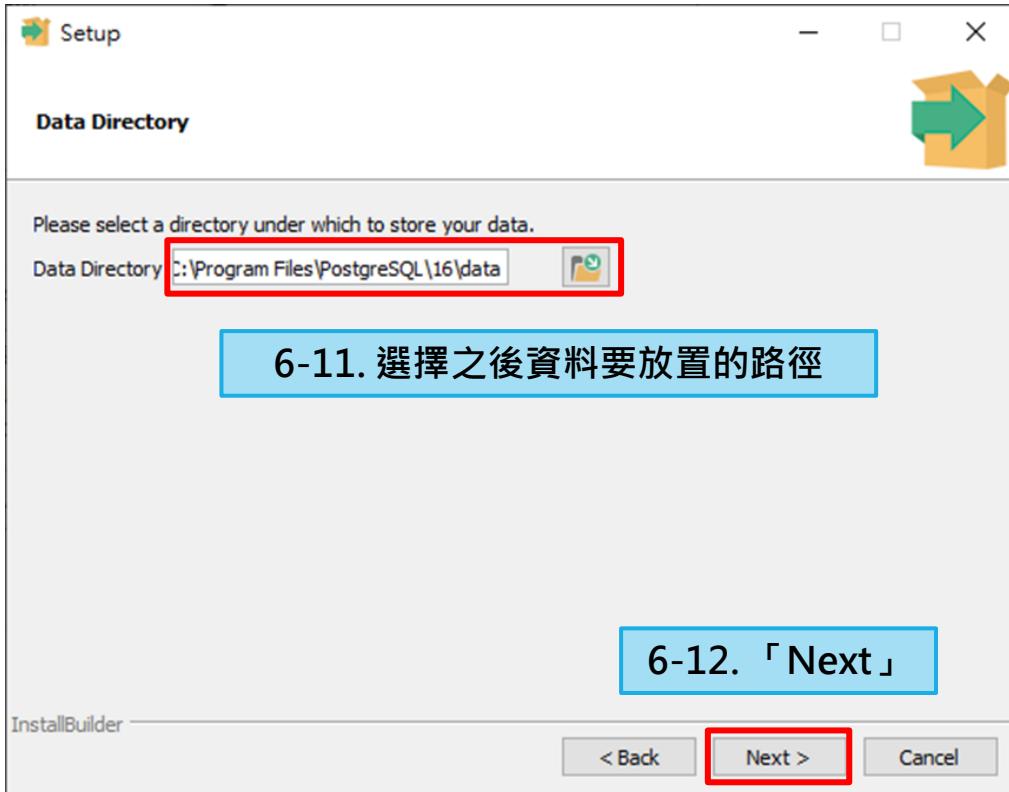
6. 安裝PostgreSQL



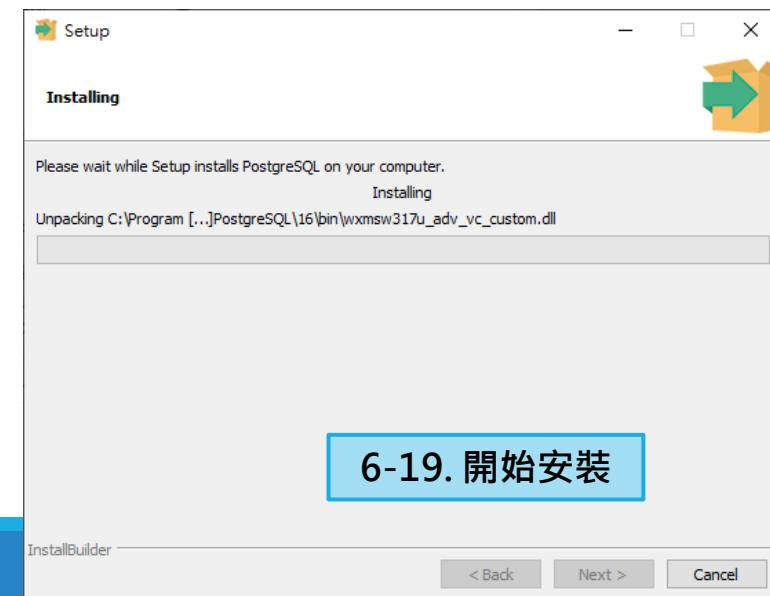
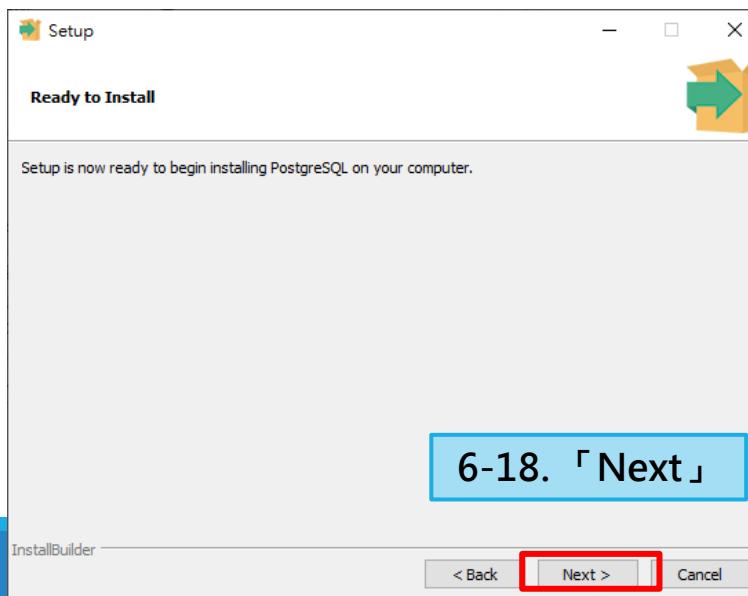
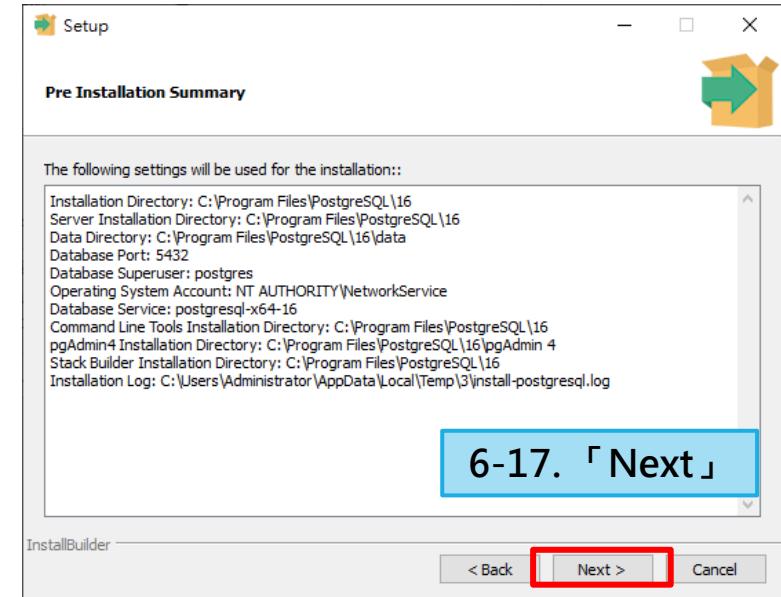
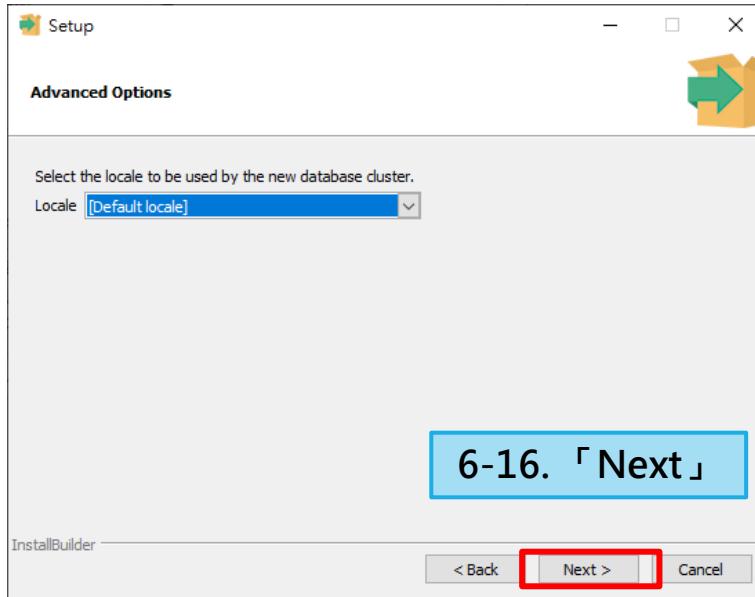
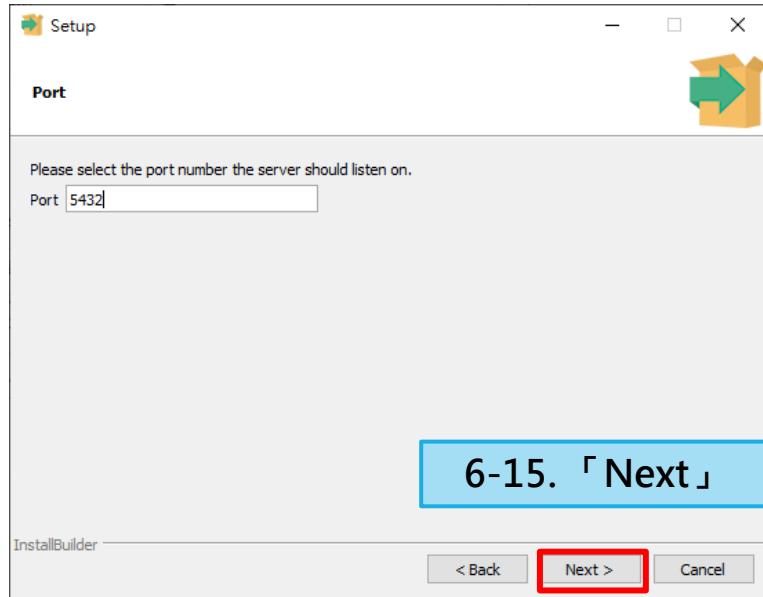
6. 安裝PostgreSQL



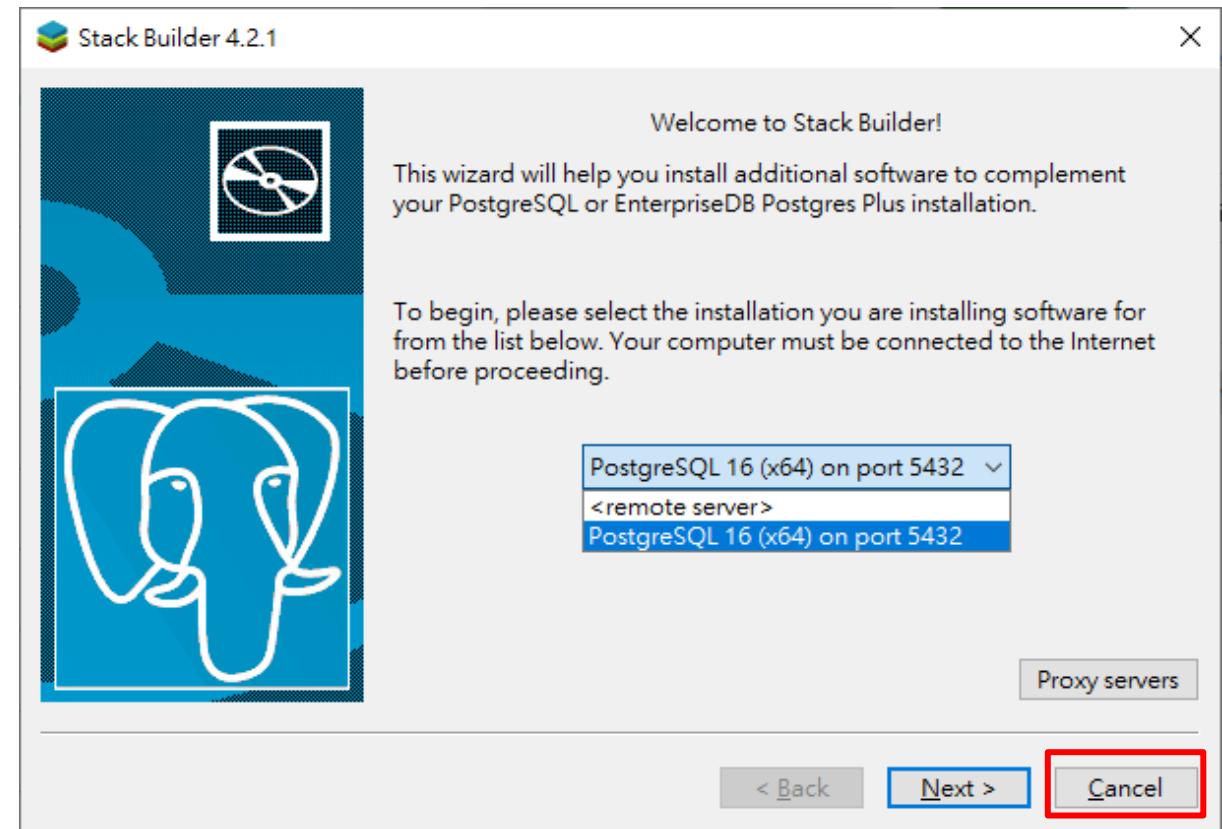
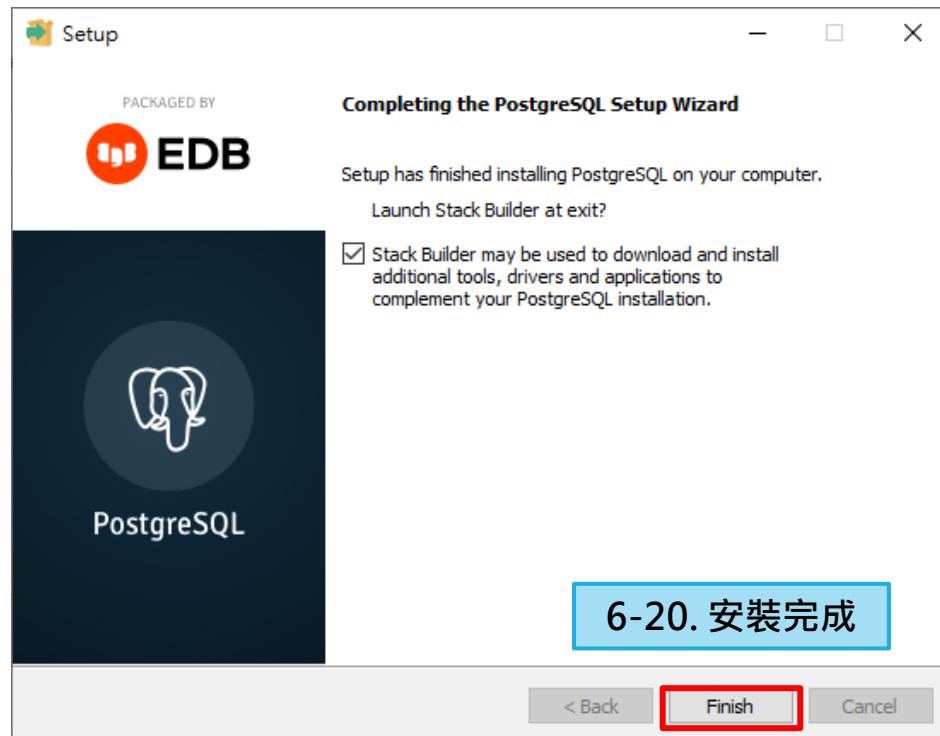
6. 安裝PostgreSQL



6. 安裝PostgreSQL

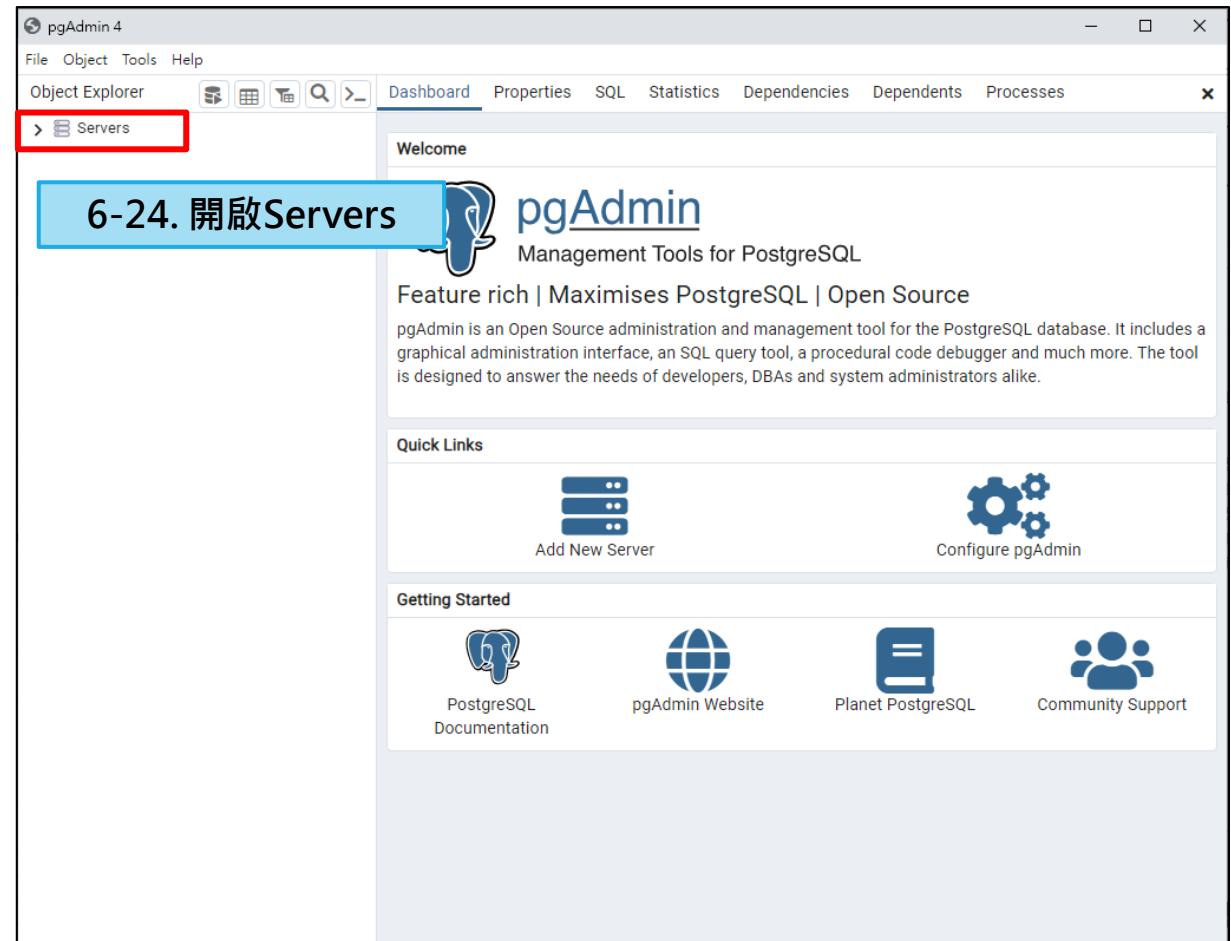
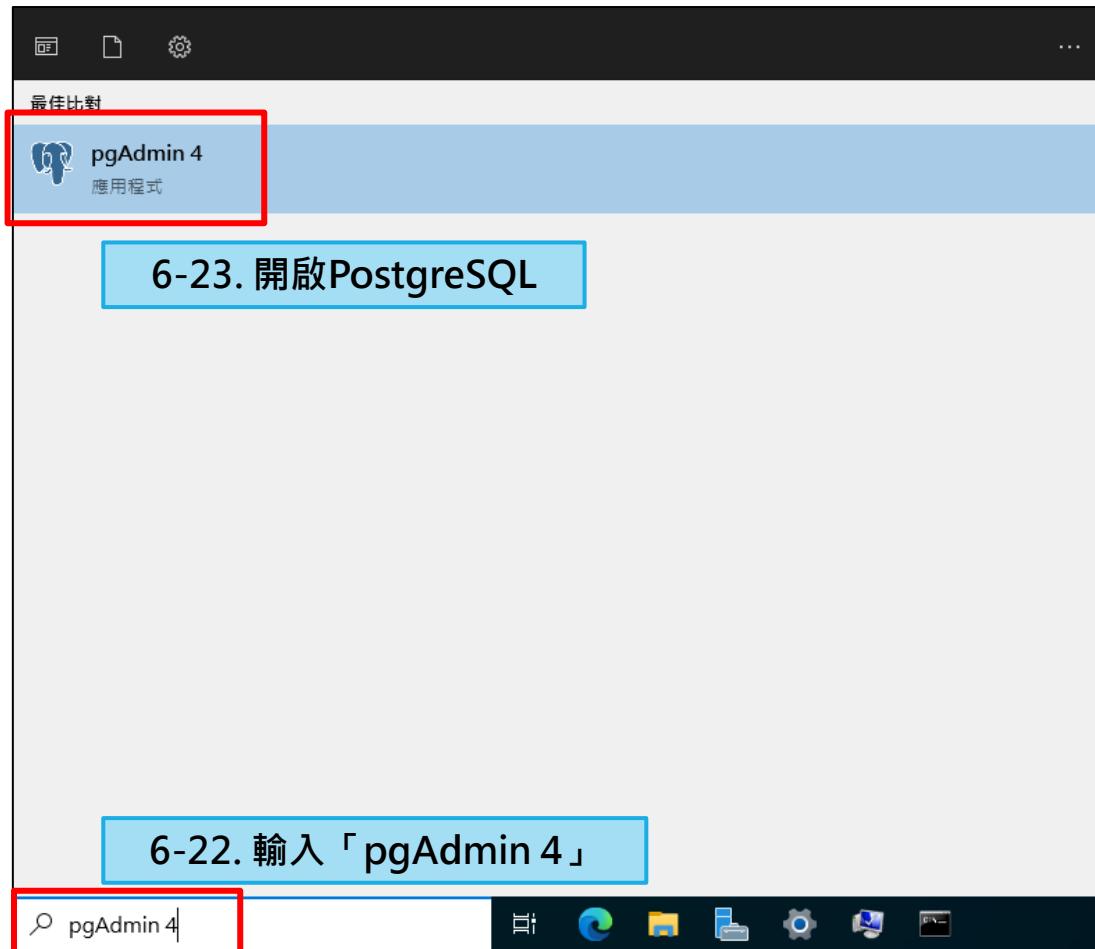


6. 安裝PostgreSQL

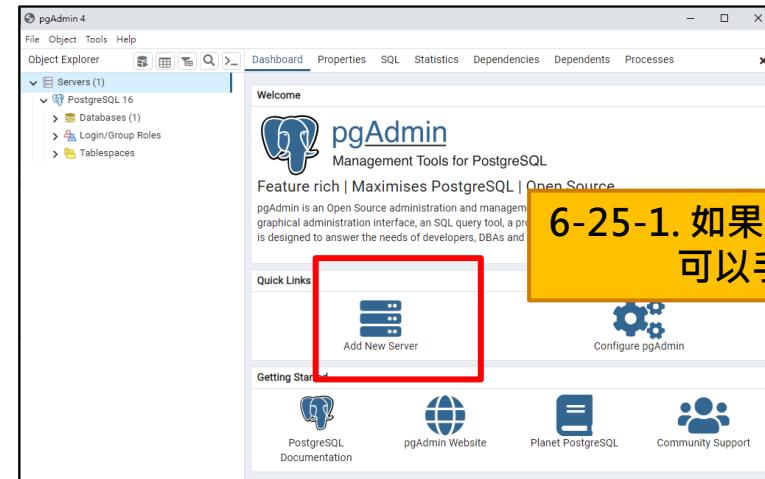
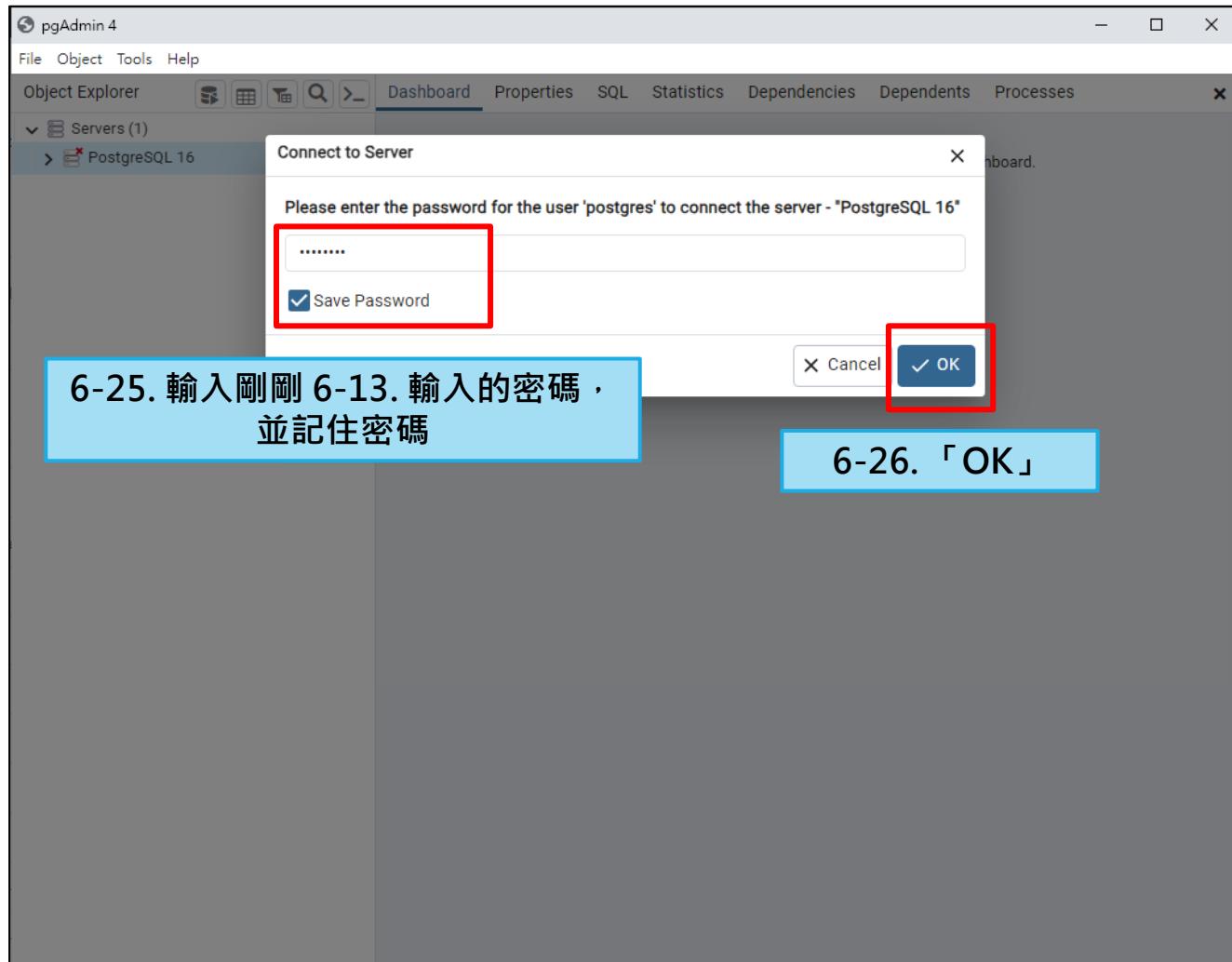


6-21. 如果跳出這個，可以不用安裝
直接關掉

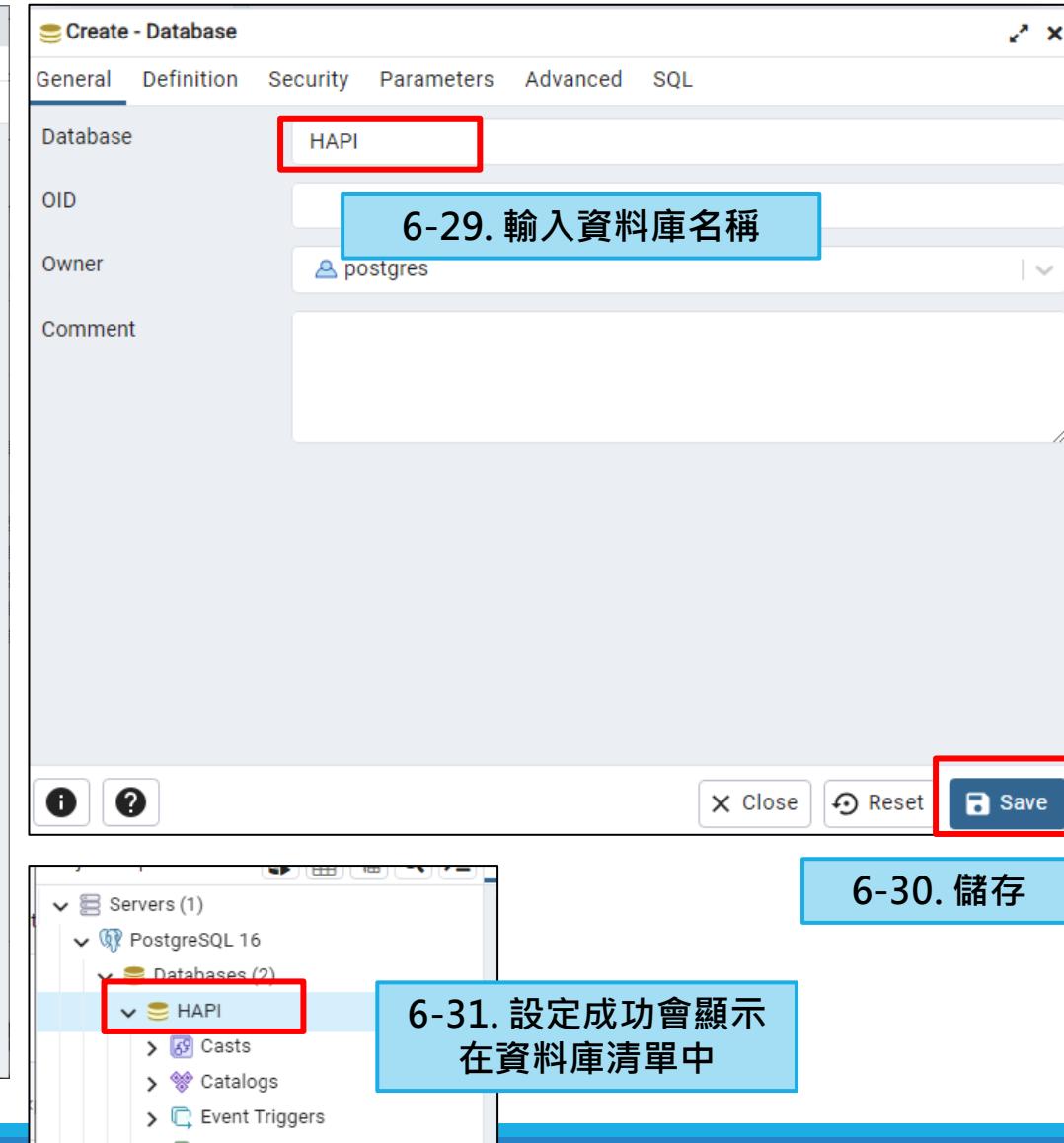
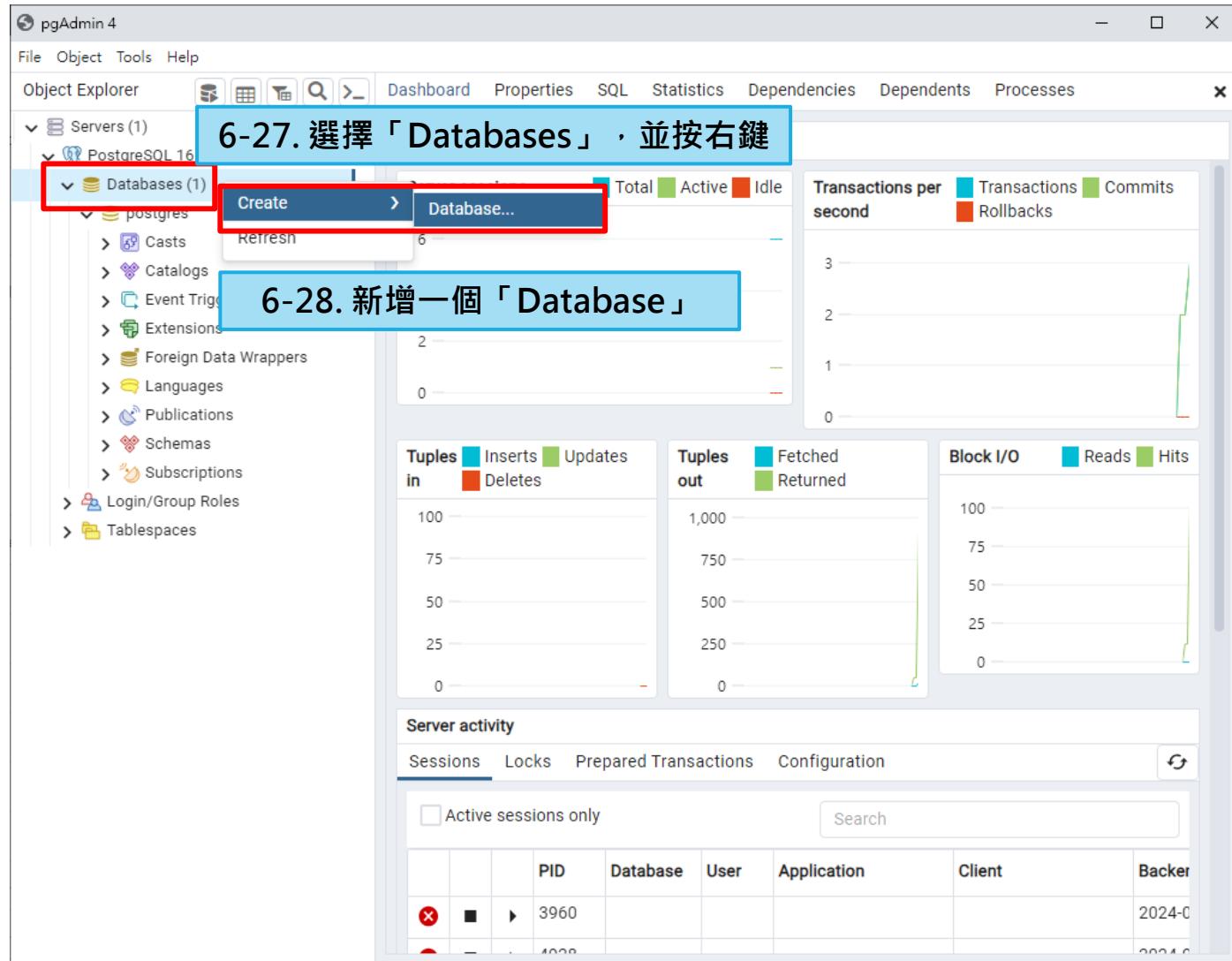
6. 安裝PostgreSQL



6. 安裝PostgreSQL



6. 安裝PostgreSQL



7. 安裝HAPI FHIR

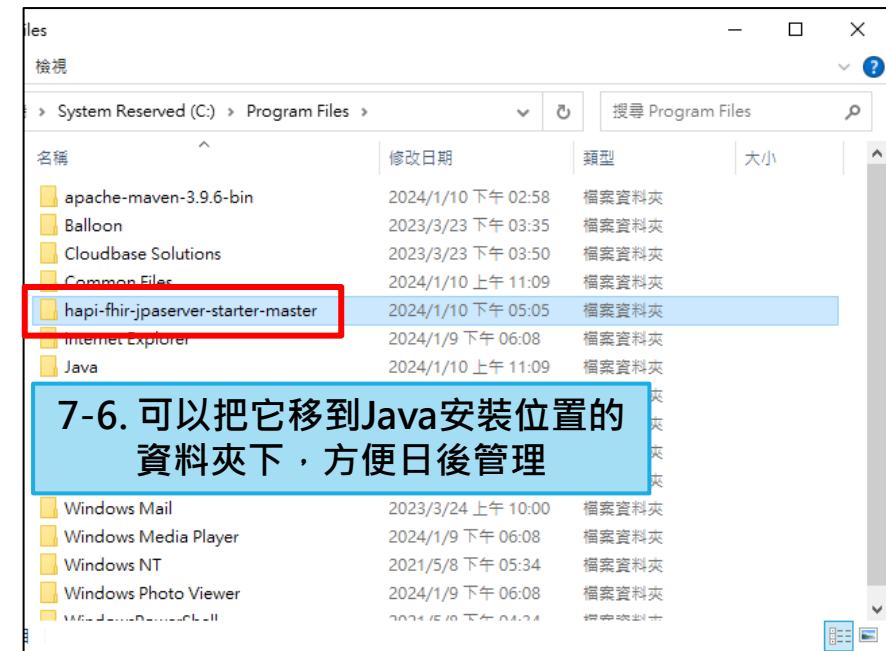
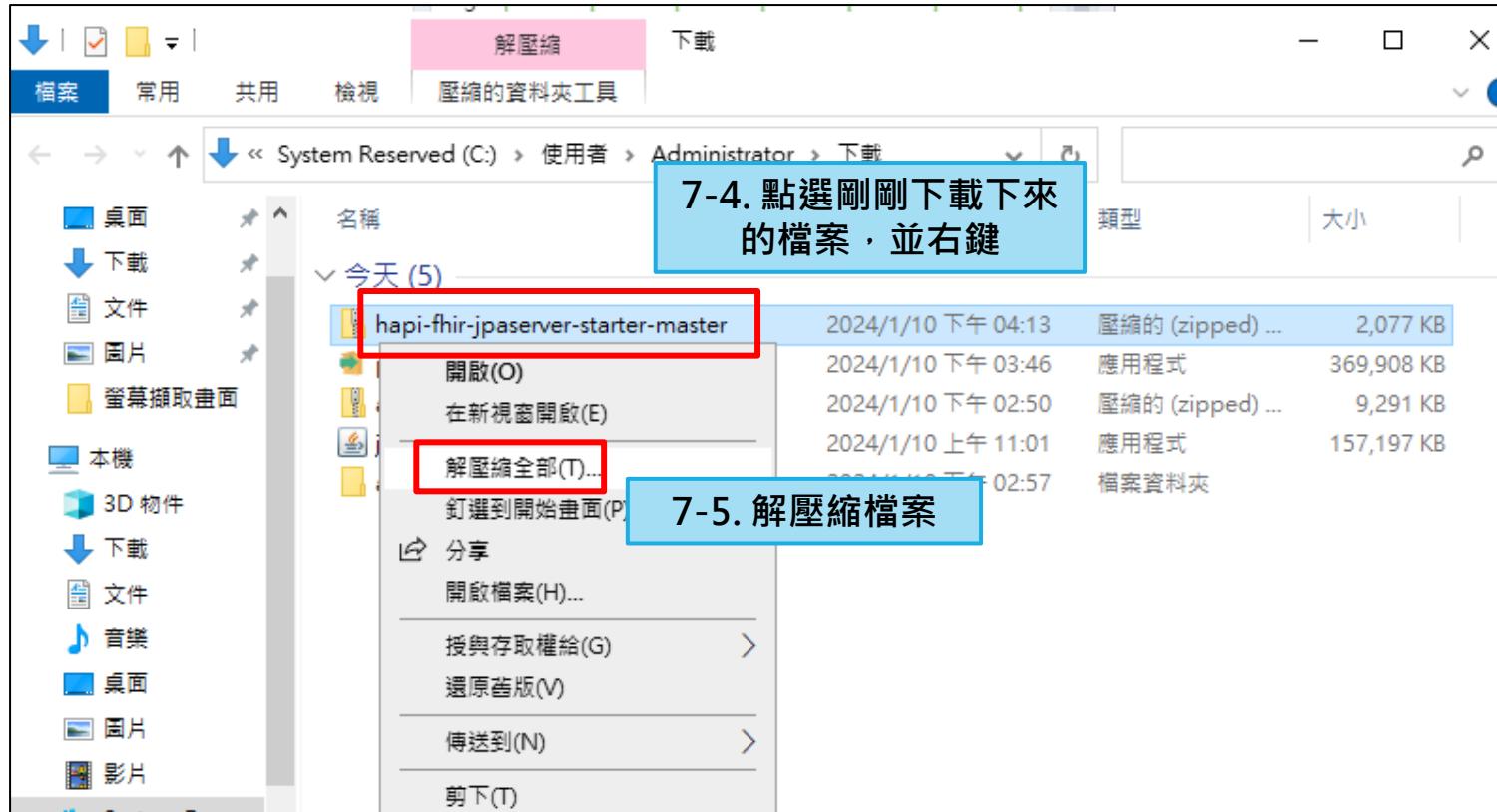
7-1. 在搜尋引擎中搜尋「hapi fhir starter」或網址「<https://github.com/hapifhir/hapi-fhir-jpaserver-starter>」

The screenshot shows the GitHub repository page for 'hapifhir/hapi-fhir-jpaserver-starter'. The repository has 85 issues and 6 pull requests. The 'Code' tab is selected. A red box highlights the 'Code' button in the top right corner of the main repository area. A larger red box highlights the 'Download ZIP' button in the 'Clone' dropdown menu. The repository has 40 branches and 48 tags. The 'About' section on the right shows 310 stars, 36 watching, and 869 forks. There are 31 releases, with the latest being 'image/v6.10.1' from November 29, 2023.

7-2. 選擇「Code」

7-3. 下載ZIP

7. 安裝HAPI FHIR



7. 安裝HAPI FHIR

Configurations

Much of this HAPI starter project can be configured using the yaml file in `src/main/resources/application.yaml`. By default, this starter project is configured to use H2 as the database.

MySQL configuration

HAPI FHIR JPA Server does not support MySQL as it is deprecated.

7-7. 根據github網站修改配置
先找到解壓縮後資料夾中的這個檔案

See more at https://hapifhir.io/hapi-fhir/docs/server_jpa/database_support.html

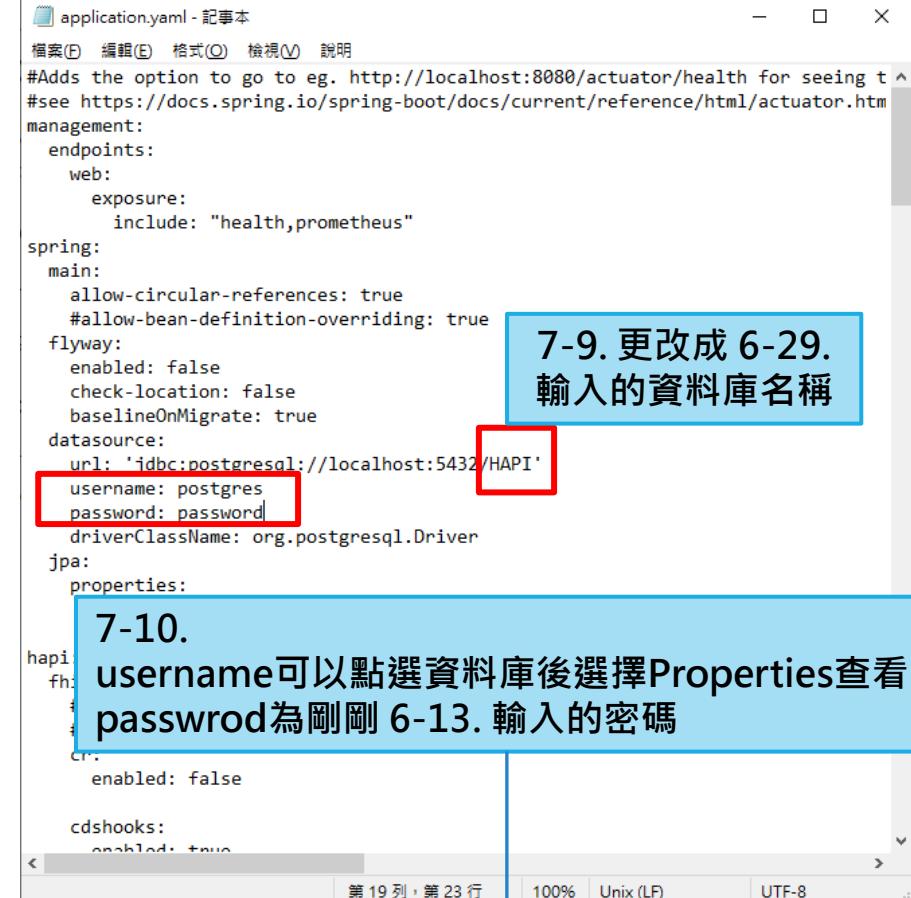
PostgreSQL configuration

To configure the starter app to use PostgreSQL, instead of the default H2, update the application.yaml file to have the following:

7-7. 接著找到檔案中的這行

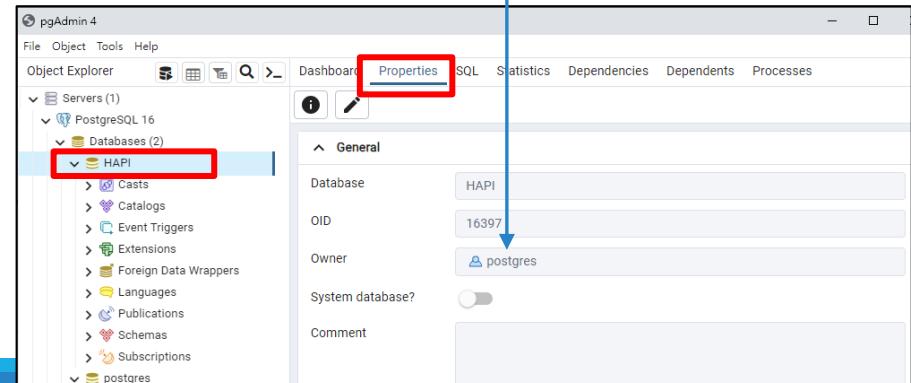
```
spring:  
  datasource:  
    url: 'jdbc:postgresql://localhost:5432/hapi'  
    username: admin  
    password: admin  
    driverClassName: org.postgresql.Driver  
  
  jpa:  
    properties:  
      hibernate.dialect: ca.uhn.fhir.jpa.model.dialect.HapiFhirPostgres94Dialect  
      hibernate.search.enabled: false  
  
    # Then comment all hibernate.search.backend.*
```

7-8. 修改「datasource」及「jpa」中的配置，可以直接把hapi以前的都刪除

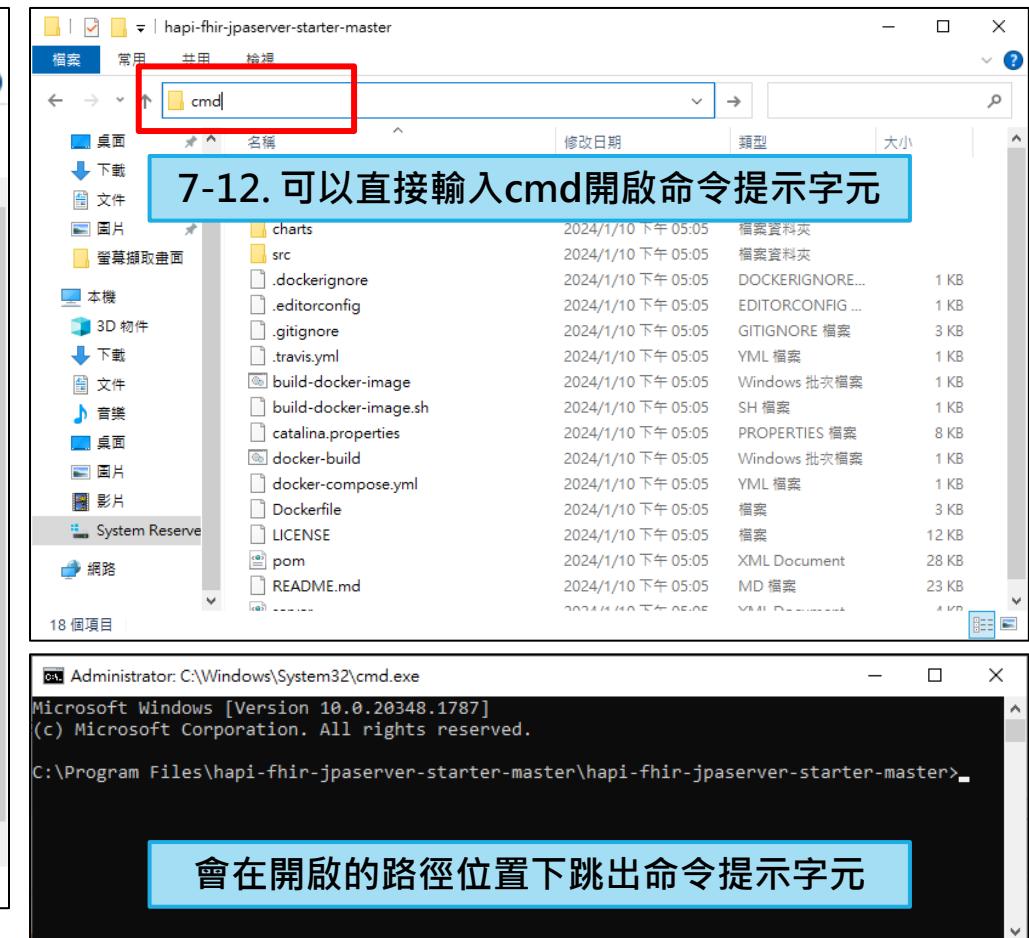
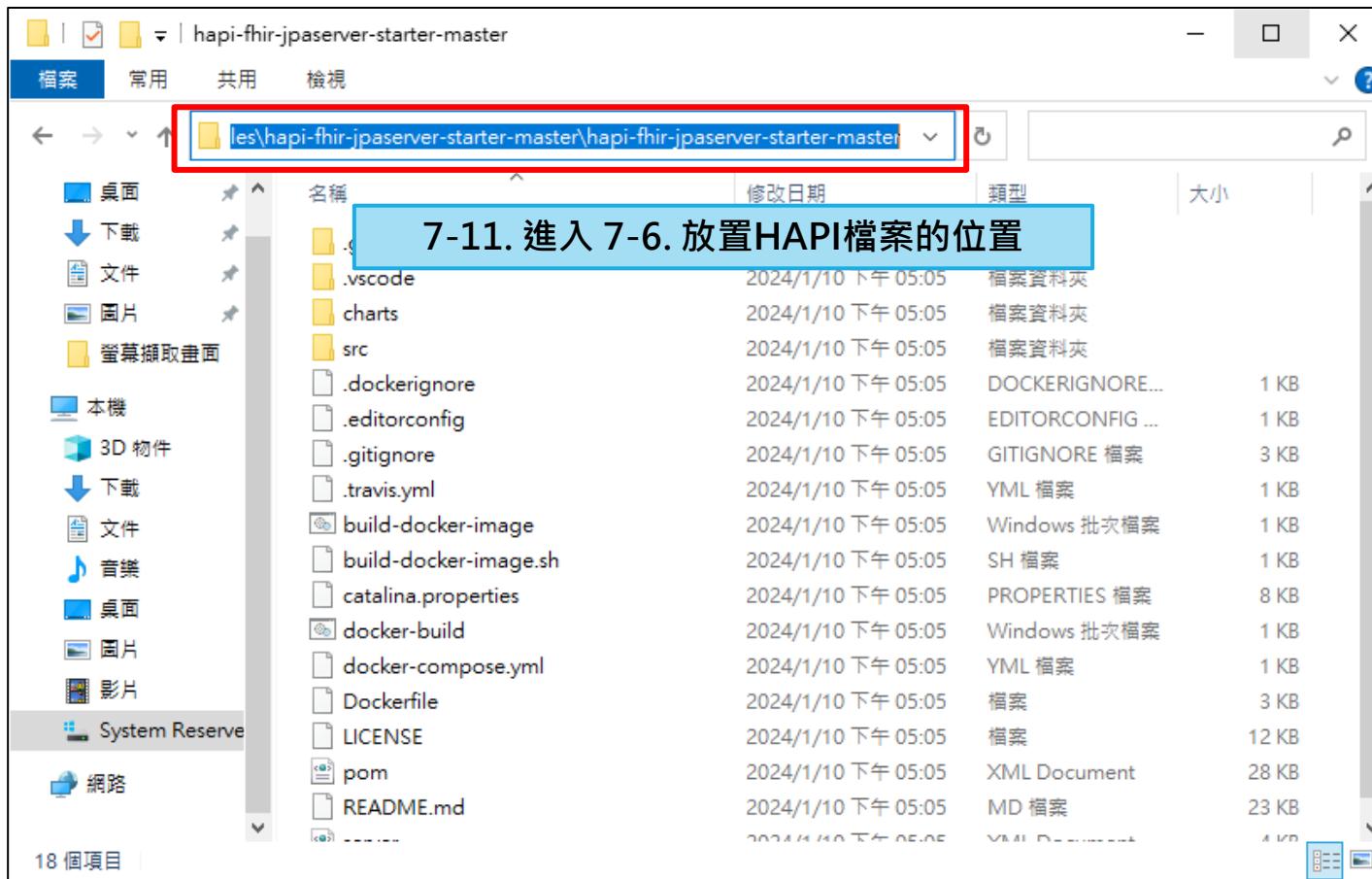


```
application.yaml - 記事本  
檔案(E) 檔案(E) 格式(O) 檢視(V) 說明  
#Adds the option to go to eg. http://localhost:8080/actuator/health for seeing t ^  
#see https://docs.spring.io/spring-boot/docs/current/reference/html/actuator.htm  
management:  
  endpoints:  
    web:  
      exposure:  
        include: "health,prometheus"  
spring:  
  main:  
    allow-circular-references: true  
    #allow-bean-definition-overriding: true  
flyway:  
  enabled: false  
  check-location: false  
  baselineOnMigrate: true  
datasource:  
  url: 'idbc:postgresql://localhost:5432/HAPI'  
  username: postgres  
  password: password  
  driverClassName: org.postgresql.Driver  
jpa:  
  properties:  
    hapi:  
      fh:  
        cr:  
          enabled: false  
      cdshooks:  
        enabled: true
```

7-9. 更改成 6-29.
輸入的資料庫名稱



7. 安裝HAPI FHIR



7. 安裝HAPI FHIR

```
選取 Administrator: C:\Windows\System32\cmd.exe - mvn -Pjetty jetty:run
Microsoft Windows [Version 10.0.20348.1787]
(c) Microsoft Corporation. All rights reserved.

C:\Program Files\hapi-fhir-jpaserver-starter-master\hapi-fhir-jpaserver-starter-master>mvn -Pjetty jetty:run
[INFO] Scanning for projects...
Downloading from oss-snapshots: https://oss.sonatype.org/content/repositories/snapshots/ca/uhn/.10/Down...6
[INFO] 7-13. 在命令提示字元中輸入「mvn -Pjetty jetty:run」  
接著下面會開始執行安裝
[INFO] 10.0/hapi-fhir-6.10.0.pom (97 kB at 124 kB/s)
[INFO] Downloading from oss-snapshots: https://oss.sonatype.org/content/repositories/snapshots/org/springframework/data/spring-data-bom/2021.2.2/spring-data-bom-2021.2.2.pom
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/springframework/data/spring-data-bom/2021.2.2/spring-data-bom-2021.2.2.pom
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/springframework/data/spring-data-bom/2021.2.2/spring-data-bom-2021.2.2.pom (5.7 kB at 71 kB/s)
[INFO] Downloading from oss-snapshots: https://oss.sonatype.org/content/repositories/snapshots/org/junit/junit-bom/5.9.1/junit-bom-5.9.1.pom
[INFO] Downloading from central: https://repo.maven.apache.org/maven2/org/junit/junit-bom/5.9.1/junit-bom-5.9.1.pom
[INFO] Downloaded from central: https://repo.maven.apache.org/maven2/org/junit/junit-bom/5.9.1/junit-bom-5.9.1.pom (5.6 kB at 59 kB/s)
[WARNING]
[WARNING] Some problems were encountered while building the effective model for ca.uhn.hapi.fhir:hapi-fhir-jpaserver-starter:war:6.10.0
[WARNING] 'dependencies.dependency.(groupId:artifactId:type:classifier)' must be unique: ch.qos.logback:logback-classic:jar -> version (?) vs ${logback-classic.version} @ line 395, column 21
[WARNING]
[WARNING] It is highly recommended to fix these problems because they threaten the stability of your build.
[WARNING]
[WARNING] For this reason, future Maven versions might no longer support building such malformed projects.
[WARNING]
[WARNING] The project ca.uhn.hapi.fhir:hapi-fhir-jpaserver-starter:war:6.10.0 uses prerequisites which is only intended for maven-plugin projects but not for non maven-plugin project
```

The screenshot shows a web browser window with the URL `http://203.145.214.76:8080/` highlighted in a red box. The main content area displays the HAPI FHIR project's homepage. It features a large HAPI FHIR logo, the text "COMPANY NAME" and "YOUR SAMPLE TEXT HERE", and a paragraph stating that the server provides a complete implementation of the FHIR Specification using a 100% open source software stack. Below this, it says the server is built from modules of the HAPI FHIR project, which is a 100% open-source Java-based implementation of the FHIR specification. A table shows server details: Server (HAPI FHIR R4 Server), Software (HAPI FHIR Server - 6.10.0), and FHIR Base (<http://localhost:8080/fhir>). At the bottom, there is a "Server Actions" section with a "Conformance" button.