

計算機概論補充

Install PostgreSQL on MacOS

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PostgreSQL 安裝

- 下載 [Postgres.app](#)
- 選擇 “PostgreSQL 14”

Additional Releases

We provide additional releases for people who want to run other versions of PostgreSQL. With these releases you can even run multiple versions of PostgreSQL simultaneously.

Postgres.app with all currently supported versions (Universal/Intel)

Postgres.app v2.5.12 · Requires macOS 10.13 · Download Size 379MB

PostgreSQL 15.1 / PostGIS 3.3.1 · Universal
PostgreSQL 14.6 / PostGIS 3.2.3 · Universal
PostgreSQL 13.9 / PostGIS 3.1.7 / plv8 3.1.7 · Intel
PostgreSQL 12.13 / PostGIS 3.0.7 / plv8 3.0.7 · Intel
PostgreSQL 11.18 / PostGIS 2.5.8 / plv8 2.5.8 · Intel
PostgreSQL 10.23 / PostGIS 2.4.10 / plv8 2.4.10 · Intel

↓ Download

Postgres.app with PostgreSQL 14 (Universal)

Postgres.app v2.5.12 · Requires macOS 10.13 · Download Size 87MB

PostgreSQL 14.6 / PostGIS 3.2.3 · Universal

↓ Download

Postgres.app with PostgreSQL 13 (Intel)

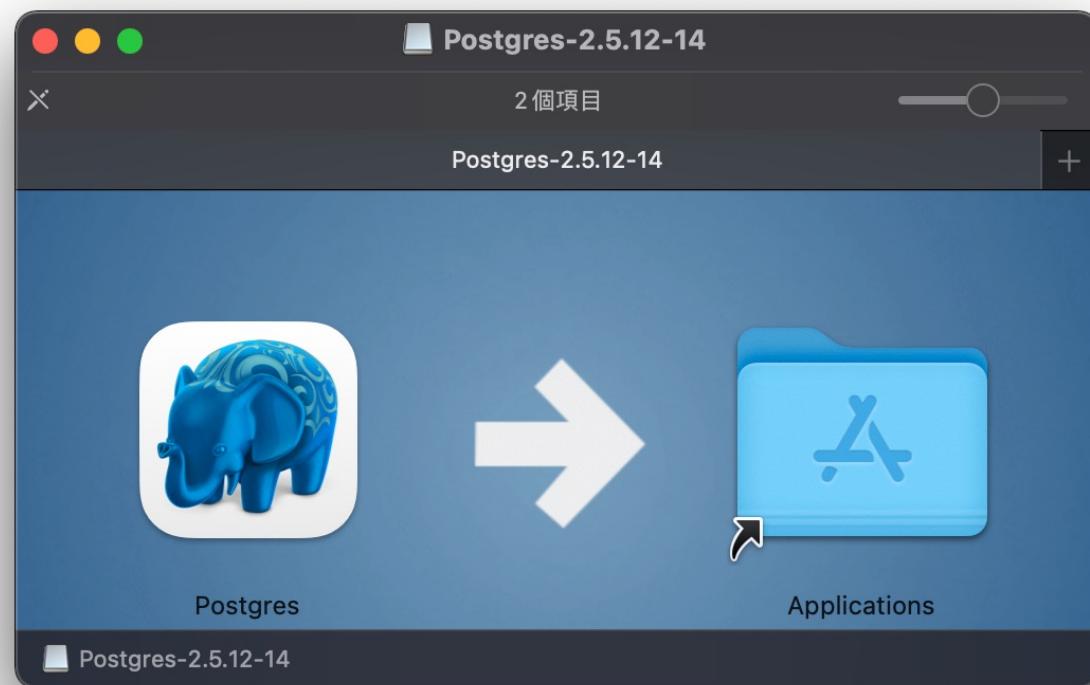
Postgres.app v2.5.12 · Requires macOS 10.13 · Download Size 56MB

PostgreSQL 13.9 / PostGIS 3.1.7 / plv8 3.1.7 · Intel

↓ Download

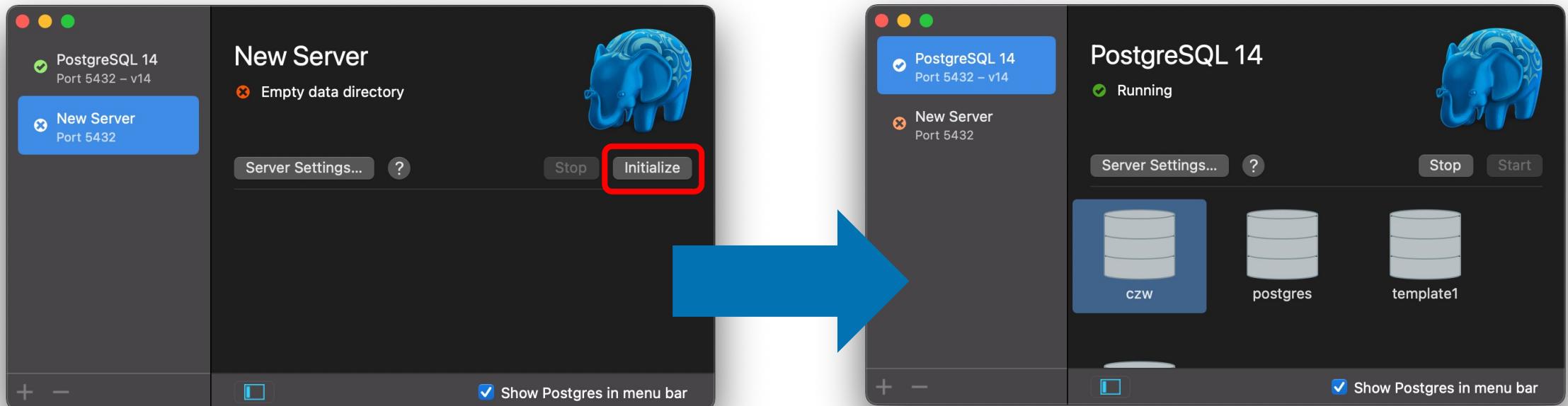
PostgreSQL 安裝

- 點開下載下來的 .dmg 檔案
- 將 Postgres 應用程式
拖曳到資料夾內安裝
- 等待進度條跑完再關閉



PostgreSQL 安裝

- 打開 Postgres 應用程式
- 選擇 “Initialize” 初始化伺服器
- 等待一會後會變成右邊的樣子



pgAdmin 4 安裝

- 下載 [pgAdmin 4](#)
- 選擇 “pgadmin4-6.15.dmg”

File Browser

Top → pgadmin → pgadmin4 → v6.15 → macos

Directories

[Parent Directory]

Files

CURRENT_MANTAINER	2022-10-20 10:38:26	136 bytes
pgadmin4-6.15.dmg	2022-10-20 10:38:38	185.0 MB

The file "pgadmin4-6.15.dmg" is highlighted with a red border.

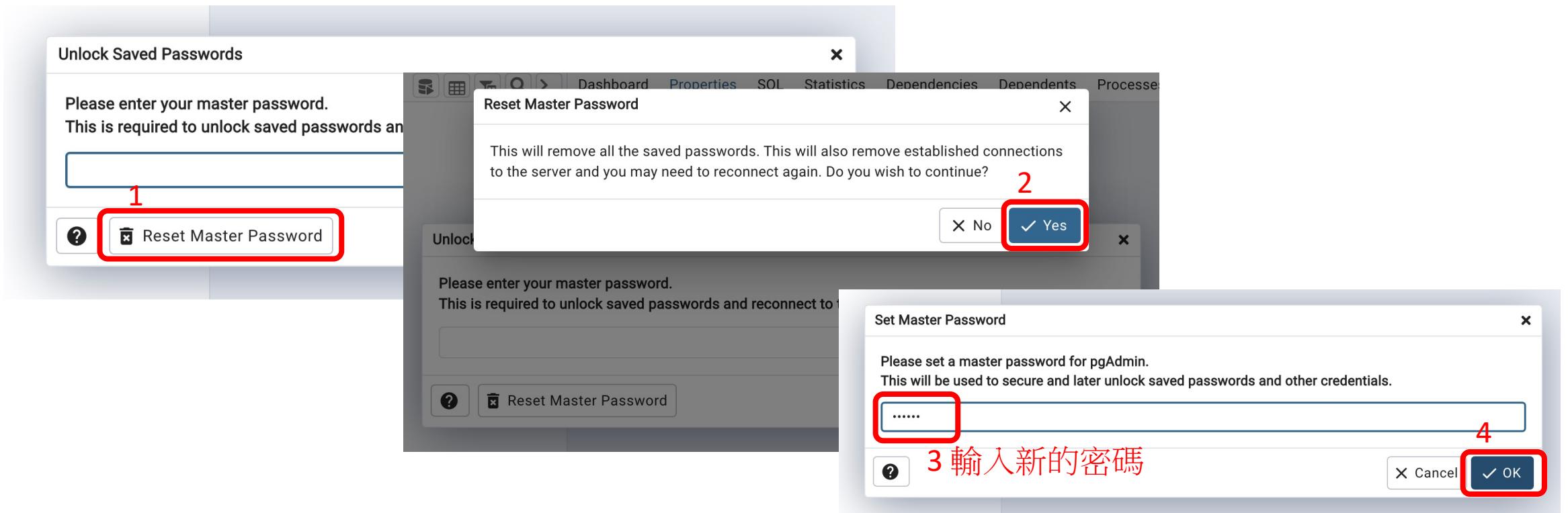
pgAdmin 4 安裝

- 點開下載下來的 .dmg 檔案
- 將 pgAdmin 4 應用程式
拖曳到資料夾內安裝
- 等待進度條跑完再關閉



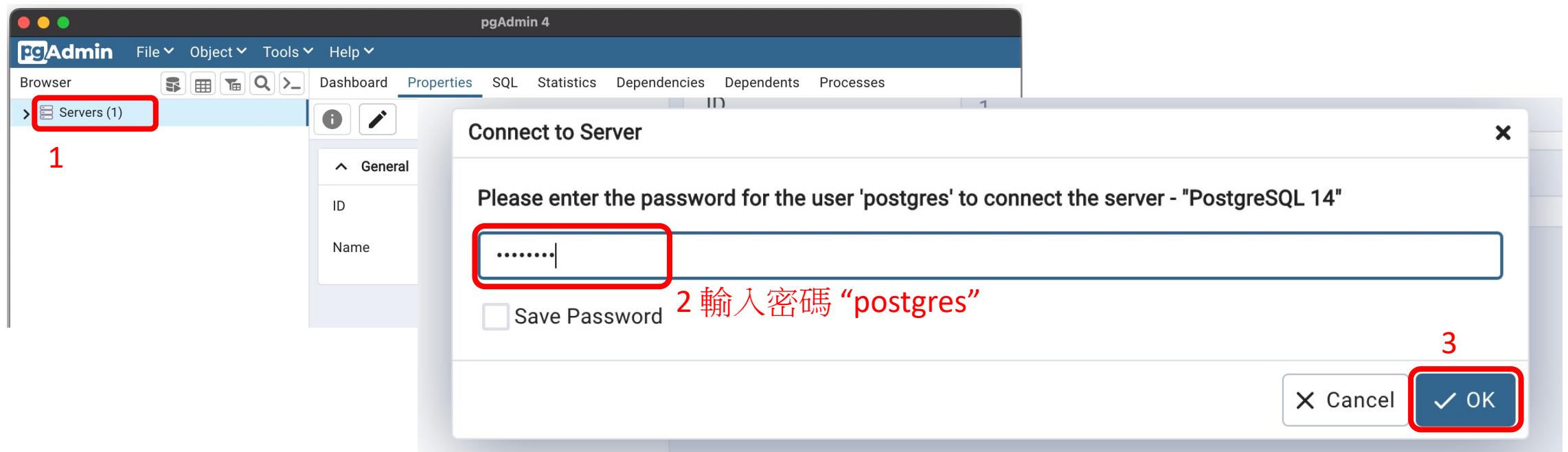
pgAdmin 4 安裝

- 打開 pgAdmin 4 應用程式
- 選擇 “Reset Master Password” 重設密碼



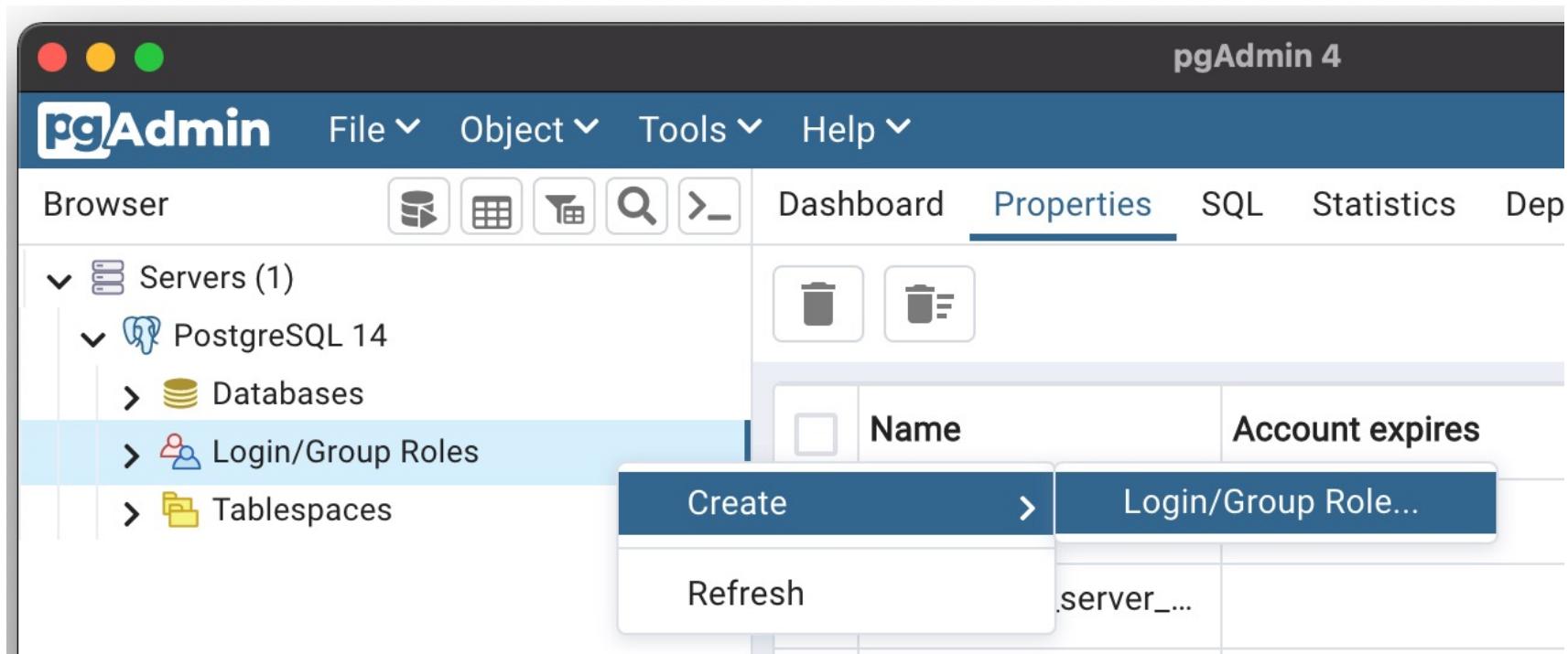
pgAdmin 4 安裝

- 對旁邊的 “Servers” 點兩下來登入預設使用者
- 預設密碼為 “postgres”



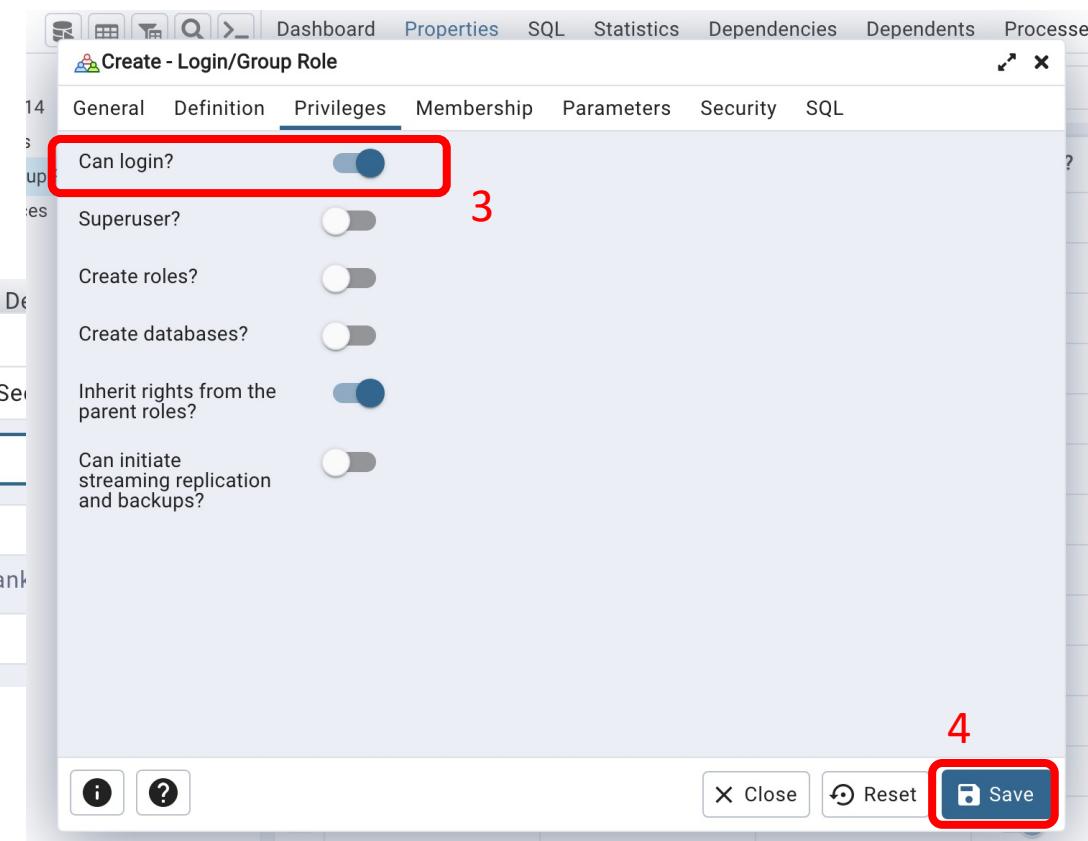
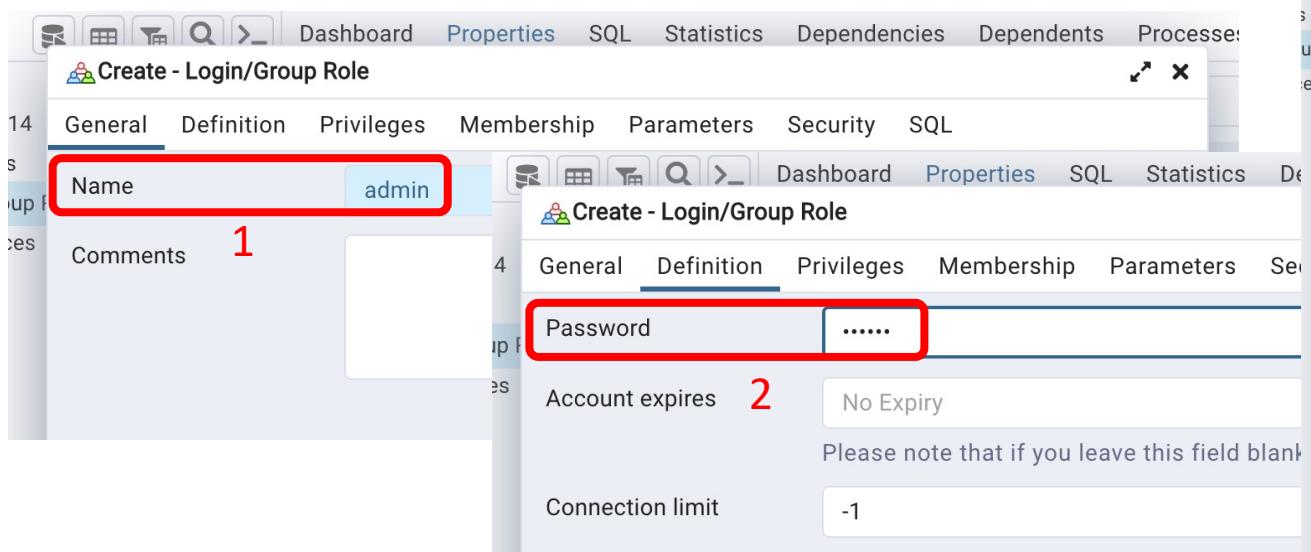
pgAdmin 4 安裝

- 右鍵點擊 “Login/Group Roles” > “Create” > “Login/Group Role...”



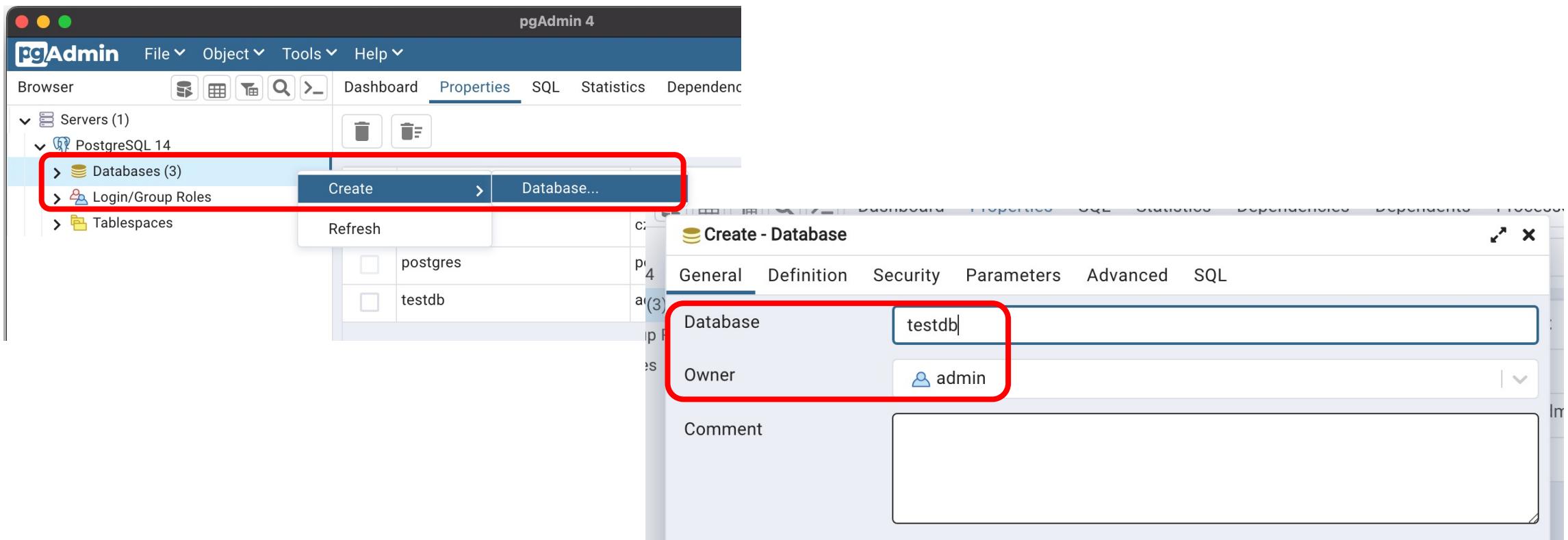
pgAdmin 4 安裝

- General 頁面設定使用者名稱 “admin”
- Definition 頁面設定密碼（可自行設定）
- Privileges 頁面將 “Can login” 選項打勾



pgAdmin 4 安裝

- 右鍵點擊 “Databases” > “Create” > “Database...”
- 輸入 Database “testdb” , Owner “admin”



pgAdmin 4 安裝

The screenshot shows the pgAdmin 4 interface for managing a PostgreSQL 14 database. The left sidebar lists servers, databases, and roles. The 'Properties' tab is selected in the top navigation bar. The main area displays a table of roles with the following data:

Name	Account expires	Connection limit	Can login?	Superuser?
pg_database_owner		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_execute_server_program		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_monitor		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_read_all_data		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_read_all_settings		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_read_all_stats		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_read_server_files		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_signal_backend		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_stat_scan_tables		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_write_all_data		-1	<input type="checkbox"/>	<input type="checkbox"/>
pg_write_server_files		-1	<input type="checkbox"/>	<input type="checkbox"/>
admin		-1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
czw		-1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
postgres		-1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

資料庫的連結

- 安裝 Flask-SQLAlchemy
 - pip install -U flask_sqlalchemy
 - pip install -U psycopg2-binary
 - Pip install flask

資料庫的連結

```
from flask_sqlalchemy import SQLAlchemy
from flask import Flask

app = Flask(__name__)
app.config['SQLALCHEMY_DATABASE_URI'] = 'postgresql://admin:123456@127.0.0.1:5432/testdb'
db = SQLAlchemy(app)

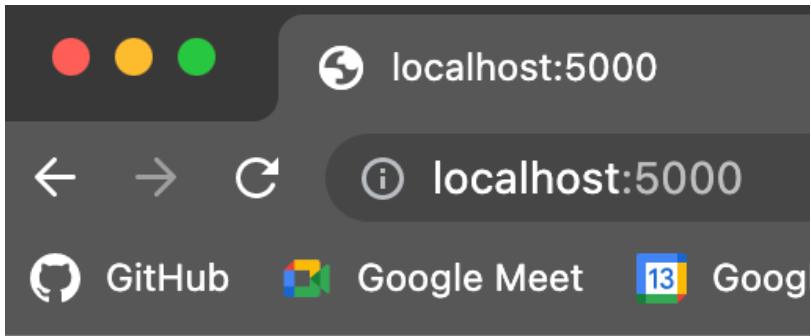
class students(db.Model):
    __tablename__ = 'students'
    sid = db.Column(db.Integer, primary_key=True)
    name = db.Column(db.String(50), nullable=False)
    tel = db.Column(db.String(50))
    addr = db.Column(db.String(200))
    email = db.Column(db.String(100))

    def __init__(self, name, tel, addr, email):
        self.name = name
        self.tel = tel
        self.addr = addr
        self.email = email

@app.route('/')
def index():
    db.create_all()
    return "DB connected!"

if __name__ == '__main__':
    app.run()
```

資料庫的連結



DB connected!

A screenshot of the pgAdmin 4 interface. The title bar says 'pgAdmin 4'. The main menu includes File, Object, Tools, Help, Browser, Dashboard, Properties (which is selected), SQL, Statistics, Dependencies, Dependents, and Processes. On the left is a tree view of the database structure under 'Schemas (1) public'. Under 'Tables (1) students', the 'Columns' node is expanded, showing 'sid', 'name', 'tel', 'addr', and 'email'. A table on the right lists these columns with their names and a 'Comment' column which is currently empty. A search bar is at the top right.