

Fundamentals for Applied Data Science

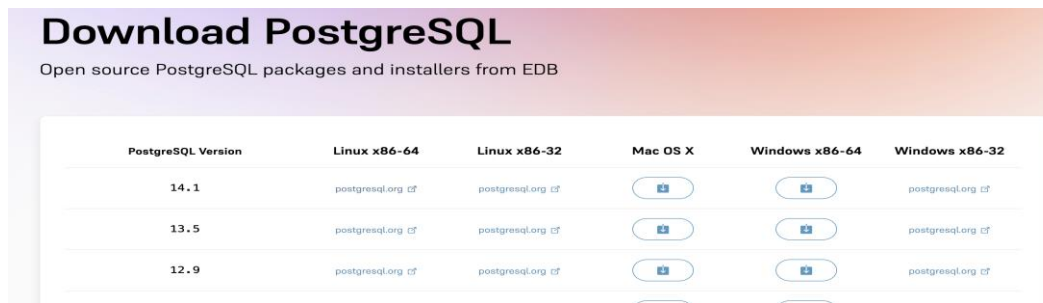
PostgreSQL Setup

PostgreSQL Overview

- Powerful, open-source object-relational database management system (ORDBMS)
- Open-source, i.e., not controlled by any single company. Its development relies on the global community of developers & companies
- Download, install, use & inspect its source code at no cost.
- Software products used:
 - **PostgreSQL (database server):** Core DBMS, including command line tools, programming language libraries etc.
 - **pgAdmin 4 (client tool):** Graphical user interface

Setting up PostgreSQL & pgAdmin

- Go to
 - <https://www.enterprisedb.com/downloads/postgres-postgresql-downloads>)



- Select your operating system (e.g., macos) and follow the on-screen instructions
- Extract the contents of the compressed file
 - Follow the installation instructions
- It will request for superuser password, provide a password you are comfortable with.
- Okay to leave the suggested default port number 5432 on which the server will listen to pgAdmin

pgAdmin Interface

The screenshot shows the pgAdmin web interface. At the top is a menu bar with 'File', 'Object', 'Tools', and 'Help'. Below it is a browser-like tab bar with 'Dashboard', 'Properties', 'SQL', 'Statistics', 'Dependencies', 'Dependents', and 'postgres/postg...'. A red bracket on the left side of the tab bar is labeled 'Menu Bar'. A red arrow points to the 'postgres/postg...' tab with the text 'Several tabs for one operation or the other'. Below the tabs is a 'Servers' sidebar. The main content area has a 'Welcome' section with the pgAdmin logo and text: 'Management Tools for PostgreSQL', 'Feature rich | Maximises PostgreSQL | Open Source', and a paragraph about the tool. Below this is a 'Quick Links' section with two buttons: 'Add New Server' (labeled 'Create New server' with a red bracket) and 'Configure pgAdmin' (labeled 'To configure new pgAdmin GUI' with a red bracket). At the bottom is a 'Getting Started' section with four links: 'PostgreSQL Documentation', 'pgAdmin Website', 'Planet PostgreSQL', and 'Community Support'. A red bracket on the left side of this section is labeled 'Help Links'.

pgAdmin

File ▾ Object ▾ Tools ▾ Help ▾


Browser

Dashboard Properties SQL Statistics Dependencies Dependents postgres/postg...

> Servers

Menu Bar


Welcome


 **pgAdmin**
Management Tools for PostgreSQL

Feature rich | Maximises PostgreSQL | Open Source

pgAdmin is an Open Source administration and management tool for the PostgreSQL database. It includes a graphical administration interface, an SQL query tool, a procedural code debugger and much more. The tool is designed to answer the needs of developers, DBAs and system administrators alike.


Quick Links


Create New server {  Add New Server


{  To configure new pgAdmin GUI


Configure pgAdmin

Getting Started

{  PostgreSQL Documentation

 pgAdmin Website

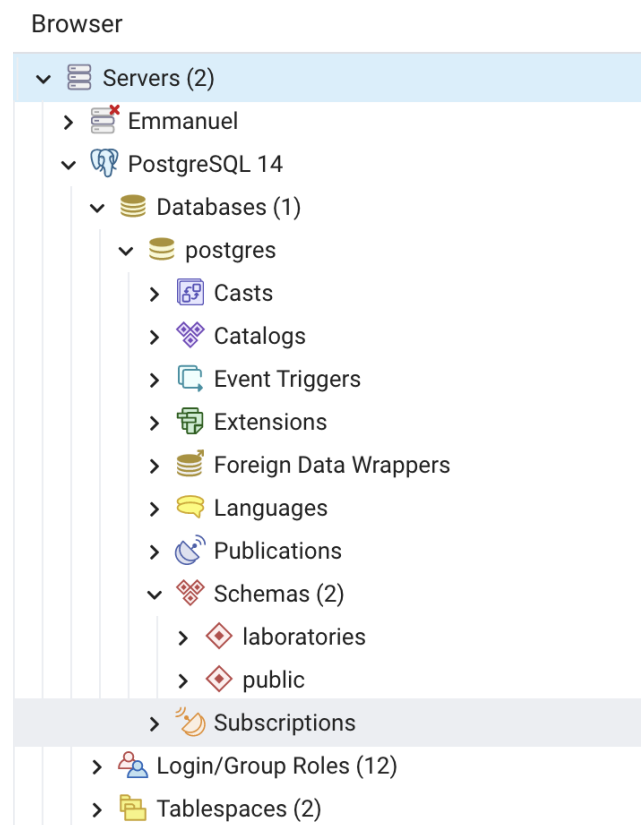
 Planet PostgreSQL

 Community Support

Help Links

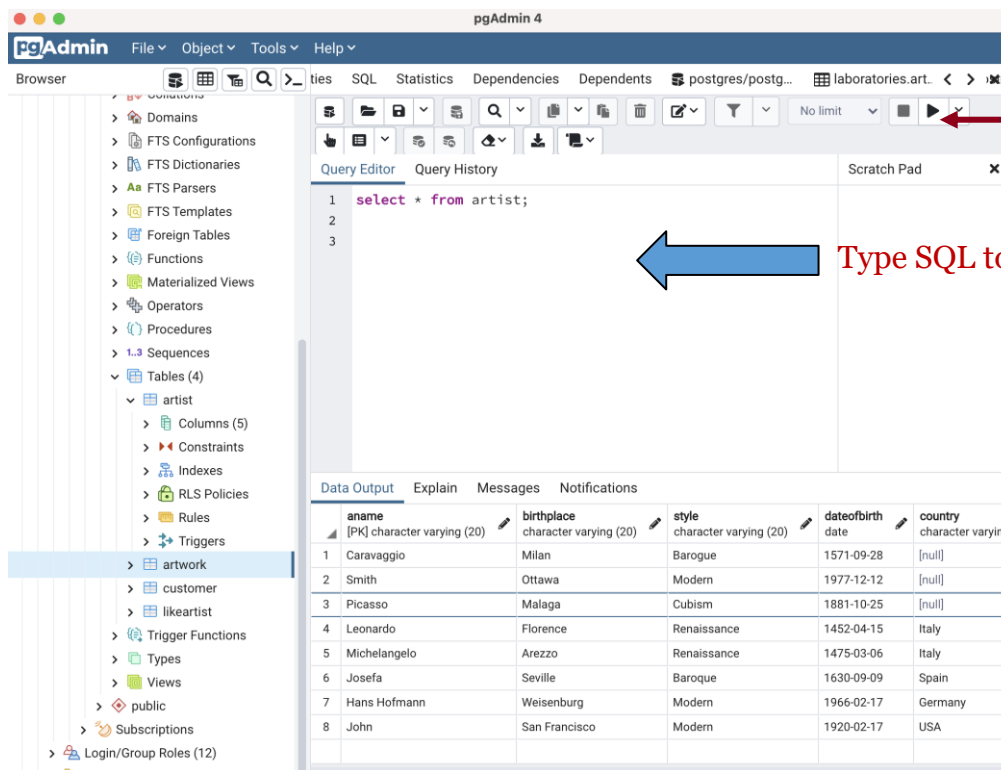
Main Window –Tree Control

Server tree
and the
objects that
reside on a
server



The Query Tool

- Can be accessed through Tools > Query Tool



For more info...

- About PostgreSQL: <https://www.postgresql.org/>
- About pgAdmin 4: <https://www.pgadmin.org/>