Installation Instruction - PostgreSQL & PgAdmin

Pre-Installation

What is PostgreSQL and PgAdmin ?
- PostgreSQL is a server that we're going to download locally on our machine, and this is what we're going to use to administer a PostgreSQL database.
- It is a SQL database engine that fits in an ecosystem with other SQL database engines. Other SQL database engines include MariaDB, Microsoft SQL Server, MySQL (the one that you will learn in MIS 2502: Data Analytics!)
- Why learn PostgreSQL?
  - Is available for free and it is open. It will never be bought.
  - Powerful object-relational database system that uses and extends the SQL language.

What is PgAdmin?
- PgAdmin is a graphical user interface that we can use to easily interact with our PostgreSQL server and our databases.
- With PgAdmin, you are able to manipulate schema and data on an instance or multiple instances of PostgreSQL engines.

Google Form for Students Database
- Please help us by filling in this google form before the Workshop.
- This form will be used as the database for our Workshop, so you will get a chance to understand how to create and upload a database from Excel spreadsheet to PostgreSQL!

Installation Instruction

> ***Note:** The workflow should be the same for different operating systems (OS X, Windows, etc.). If you are having trouble downloading the software, please email Nhi Nguyen, AIS IT Director, at nhi@temple.edu or Nathaly Gonzalez, student leader, at nathaly.gozalez@temple.edu for assistance!

- Go to https://www.postgresql.org
- Click on **Download** button
- You will be led to a new page, choose the Binary Packages name that represents your computer OS (For example: Windows or macOS)
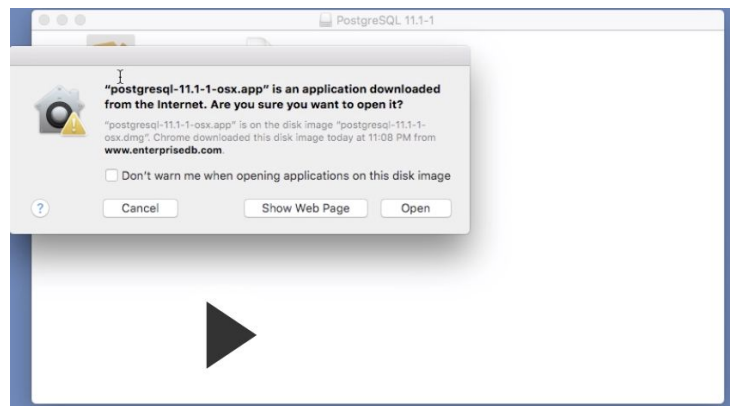
- Press on the name, you will be led to a new page. Press on the word **Download the installer** in orange
- Click on the latest version of the available PostgreSQL. Notice that for Windows, there are 64-bit and 32-bit version. For more information on which version of windows you are using, do the following steps:
    - Open your FIle Explorer, right click on **This PC**, choose **Properties**
    - Check **System type** listed under "**System**". You will see something like "64-bit Operating System" or "32-bit Operating System"

- Once you click Download, all we have to do is just wait for it to finish downloading.
- Now, you should have the PostgreSQL Installer on your desktop, go ahead and double-click on it and that's going to bring up the loading file. Just give it a couple of minutes here.
- For Mac users, a notification box will pop up and warn you that this was an application downloaded from the Internet → click **Open**
    - It will also ask for your password so make sure to fill it in.

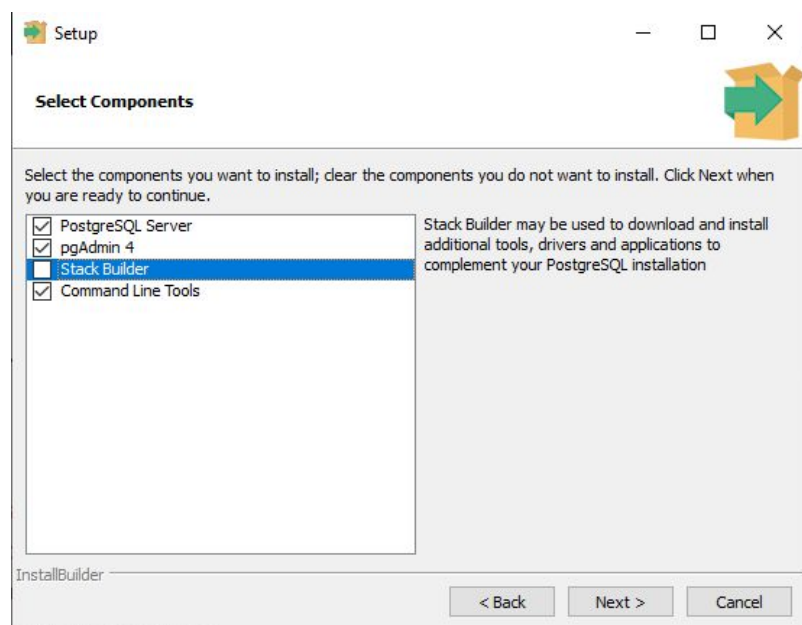- The Setup Utility will appear, press "Next"

- It will ask you for Installation Directory. It is suggested to keep everything as default options for all the screens
- When you finish choosing the installation directory, press Next. The setup will then ask you for the components to be installed.

- Let's go ahead and leave all of these boxes checked **except for the Stack Builder**. The Stack Builder is going to include a set of softwares that we really don't need; that's why I would recommend not selecting this one. Click **Next**.
- Next is the Data Directory, leave it as default.
- Then the setup will **ask you for the Password**. Now we have to choose a password; and I would highly recommend going with a password that you can easily remember. So, you might want to use the same password that you use for your computer.
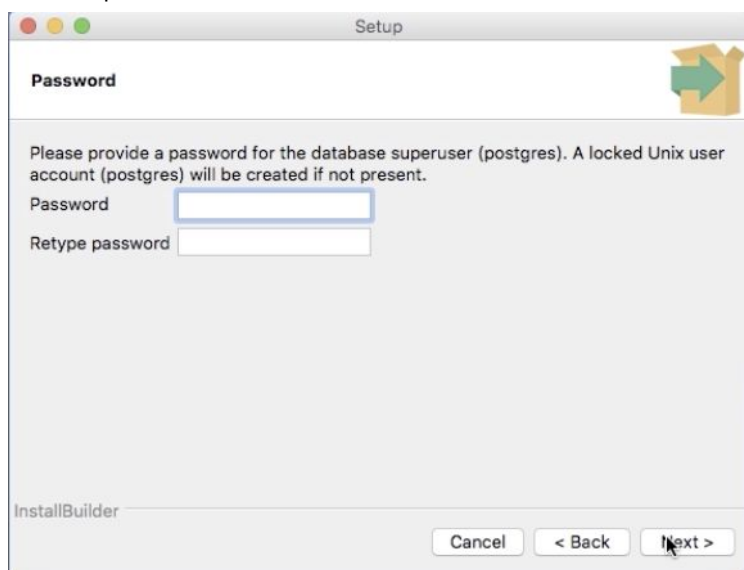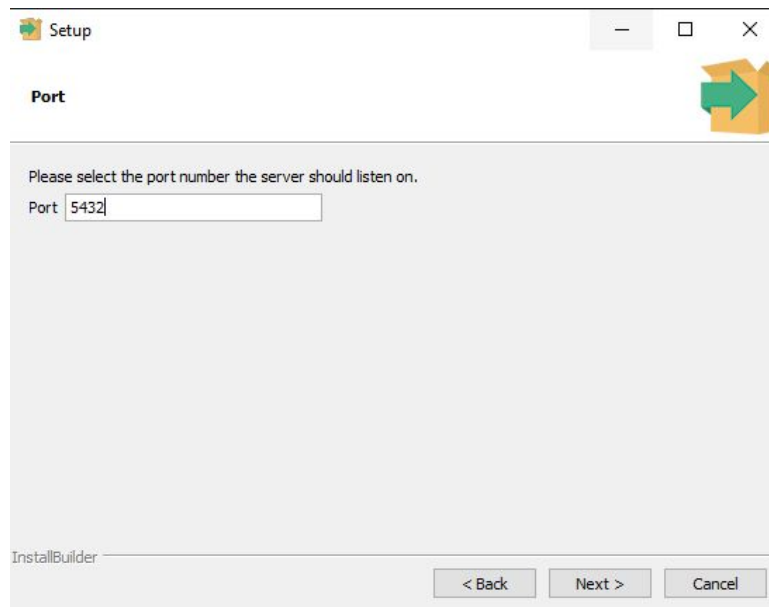

- Then you will have to input the **Port** to use. Keep it as default, which is **5432**

- Continue to press "**Next**" for all of the other screens and your PostgreSQL installation is finished.

After Installation

- **For Mac Users**, click on **Finder**
  - Choose the **Applications** directory
  - Find the subdirectory **PostgreSQL 11** (or the latest version for your OS)
  - Open that up and look for the **pgAdmin 4** app
  - Double-click on that, and this will initialize an instance of the pgAdmin graphical user interface
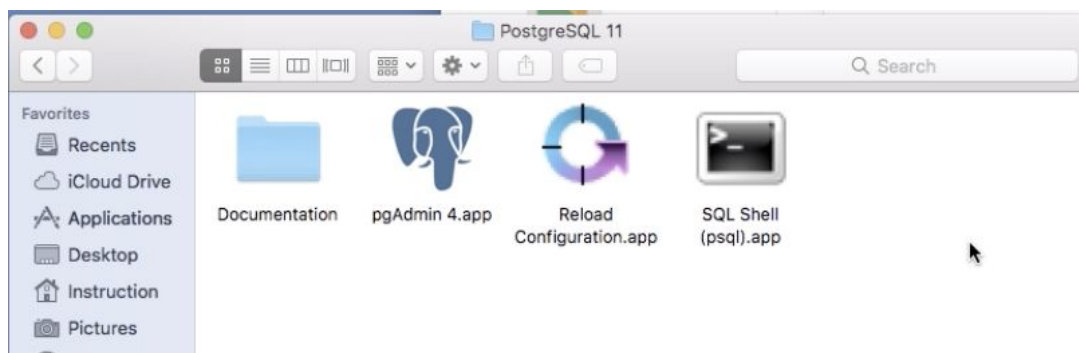

  - It's going to open up a tab in our Chrome browser. (for this, make sure you set your default browser to Chrome before you launch pgAdmin4)
  - It's also going to make a connection to the PostgreSQL server, and we can see that connection when we come over here to the Servers icon.

- **For Windows Users**, click on **Explorer**
  - Go to the directory initially chosen to install the software. This is usually be **C:\Program Files\PostgreSQL**
  - Find the subdirectory **11** (or the latest version for your OS)
  - Open that up and look for the **pgAdmin 4** folder
  - Go to **bin** and locate the executable file (.exe) for pgAdmin4. The entire path should have similar template like this:
    C:\Program Files\PostgreSQL\11\pgAdmin 4\bin\pgAdmin4.exe
  - Double-click on that, and this will initialize an instance of the pgAdmin graphical user interface

- Let it run for a bit, then enter the password initially set for your software (the password that you declared earlier)
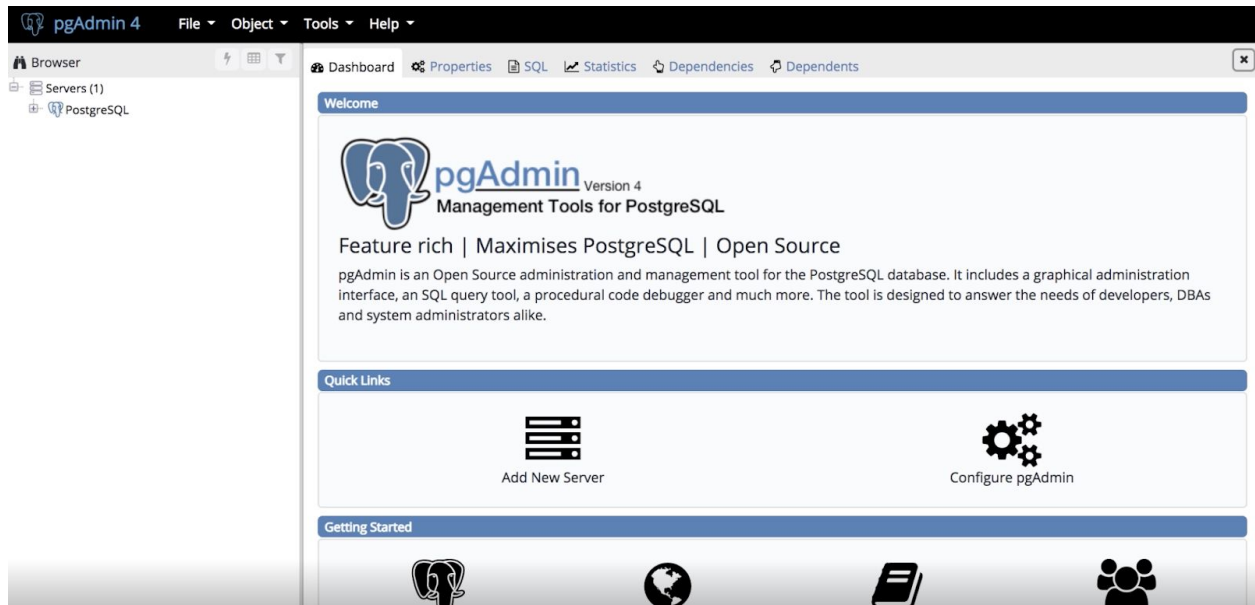
- Once this interface shows up, you have **successfully downloaded** and installed both PostgreSQL and PgAdmin! Yay!