CS1555/2055: Working with PostgreSQL using DataGrip

Part 1: Install PostgreSQL locally

1. Go to https://www.enterprisedb.com/downloads/postgres-postgresql-downloads
2. Download the installer for PostgreSQL 12 for your operating system.
3. Run the installer.
    a. Allow PostgreSQL to make changes to your computer
    b. You can install all the default selected components, click Next >
    c. You need to set a password for the superuser (default username: postgres) during the installation. Set it to whatever you like but be sure to save it for later
    d. Leave the port as the default 5432 and click Next >
    e. For locale option, choose "English, United States".
    f. You will see a list of everything that will be installed onto your system.
    g. After installation, uncheck to allow Stack Builder to install additional software at the end of the installation. There is no need for this in this course. Click 'Finish.'

Part 2: Install DataGrip

1. Go to https://www.jetbrains.com/student/ and apply for a free student account.
2. Go to https://www.jetbrains.com/datagrip/download/ and download the installer for your OS.
3. Run the installer.
4. Run the DataGrip program.
    a. Enter your JetBrains account email and password to activate the product.
    b. Select PostgreSQL as the default SQL dialect

Part 3: Connect to the local PostgreSQL server

1. Run the "pgAdmin 4" program to start the local PostgreSQL server. This program will open in your web browser.
    a. You need to set a master password for the program, it can be whatever you like but be sure to store it for later use.
    b. The server is running if you see 1 active server session in the dashboard on the left.
2. In DataGrip, follow the below instructions to connect to the server.
    a. Navigate to **File** | **Data Sources**.
    b. In the **Data Sources and Drivers** dialog, click the **Add** icon (+) and select **PostgreSQL**.
    c. If a window with Driver files appears, click to Download the latest version of the PostgreSQL Driver files. If this does not appear, proceed to part d.
    d. In the **General** tab, specify connection details:
        i. **Host** is "localhost"
        ii. **Port** is "5432"
        iii. **User** is the PostgreSQL superuser (default: postgres)
        iv. **Password** is the one that you set in Part 1 Step 3.c
        v. **Database** is "postgres" by default
    e. To ensure that the connection to the data source is successful, click **Test Connection**.

f. The connection is successful if you see a green check in the connection test. Click 'Apply' and 'OK.'

Part 4: Connect to the remote PostgreSQL server

Note: You might not have access to the remote PostgreSQL server yet. We are currently setting up the server.

1. Make sure you are on campus or using a VPN connection.
    a. Instructions for VPN setup can be found at: https://tech.cs.pitt.edu/faqs/view/3
    b. The IPSec ID and secret needed for setting up on Linux systems can be found at the bottom of the above page.
2. In DataGrip, follow the below instructions to connect to the remote PostgreSQL server.
    a. Navigate to **File** | **Data Sources**.
    b. In the **Data Sources and Drivers** dialog, click the **Add** icon (+) and select **PostgreSQL**.
    c. At the bottom of the data source settings area, click the **Download missing driver files** link.
    d. If a window with Driver files appears, click to Download the latest version of the PostgreSQL Driver files. If this does not appear, proceed to part e.
    e. In the **General** tab, enter the settings as follow:
        i. **Host** is "class3.cs.pitt.edu"
        ii. **Port** is "5432"
        iii. **User** is your PittID (e.g. btn10)
        iv. **Password** is your Pitt password
        v. **Database** is your PittID (e.g. btn10)
    f. To ensure that the connection to the data source is successful, click **Test Connection**.
    g. The connection is successful if you see a green check in the connection test. Click 'Apply' and 'OK.'