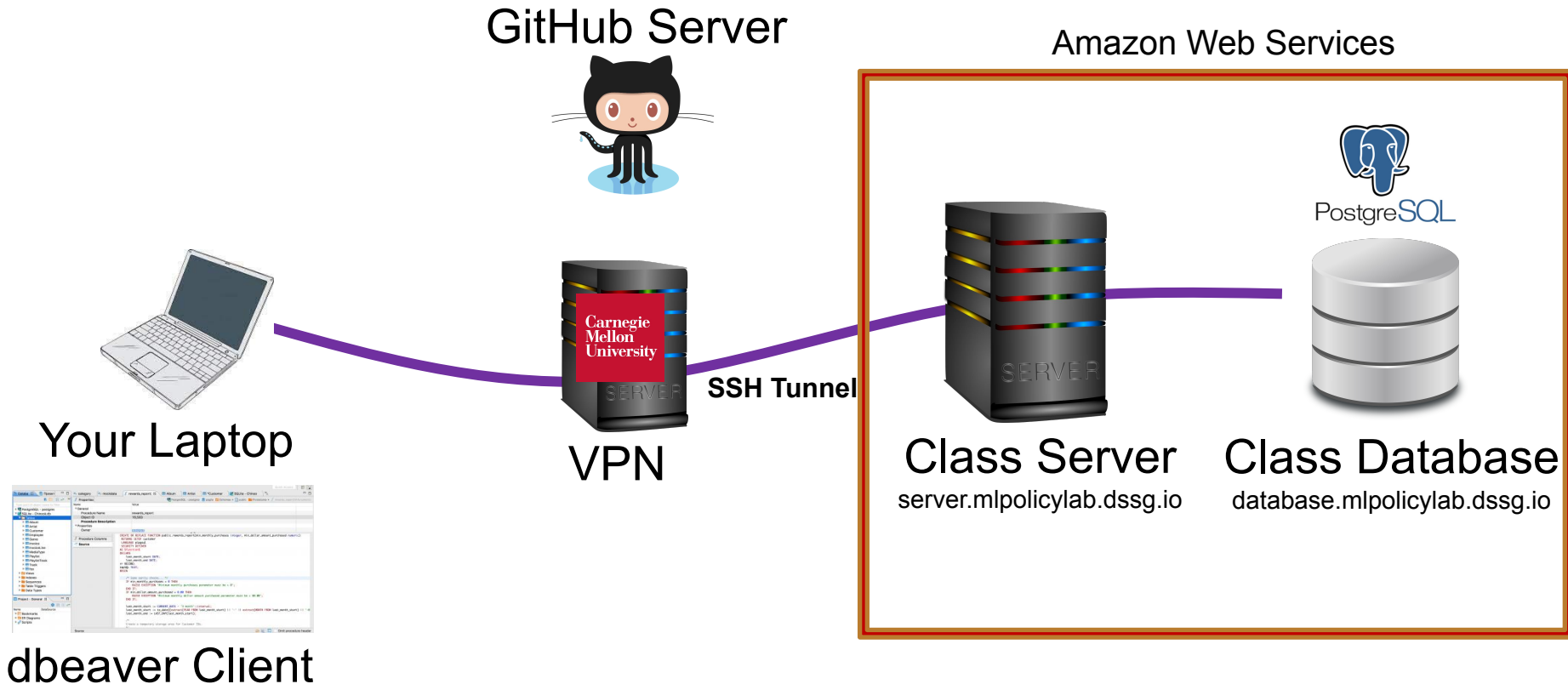


# **DATABASE ACCESS**

## **via DBeaver GUI**

# Class Infrastructure Elements:

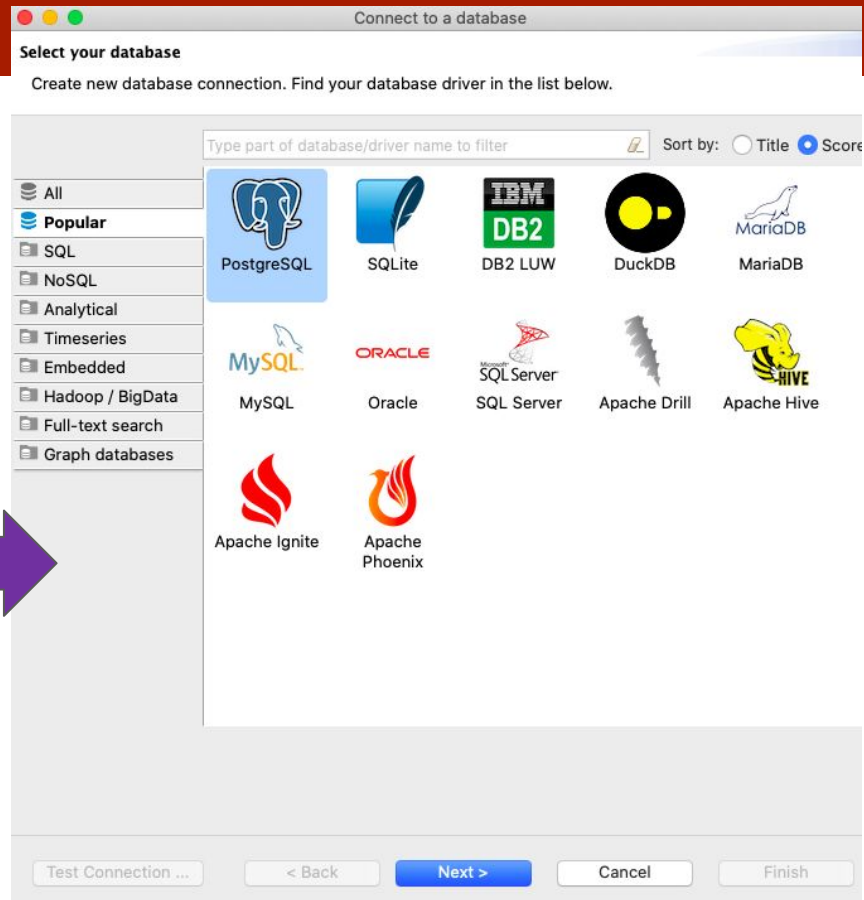
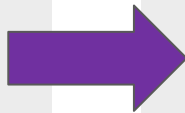
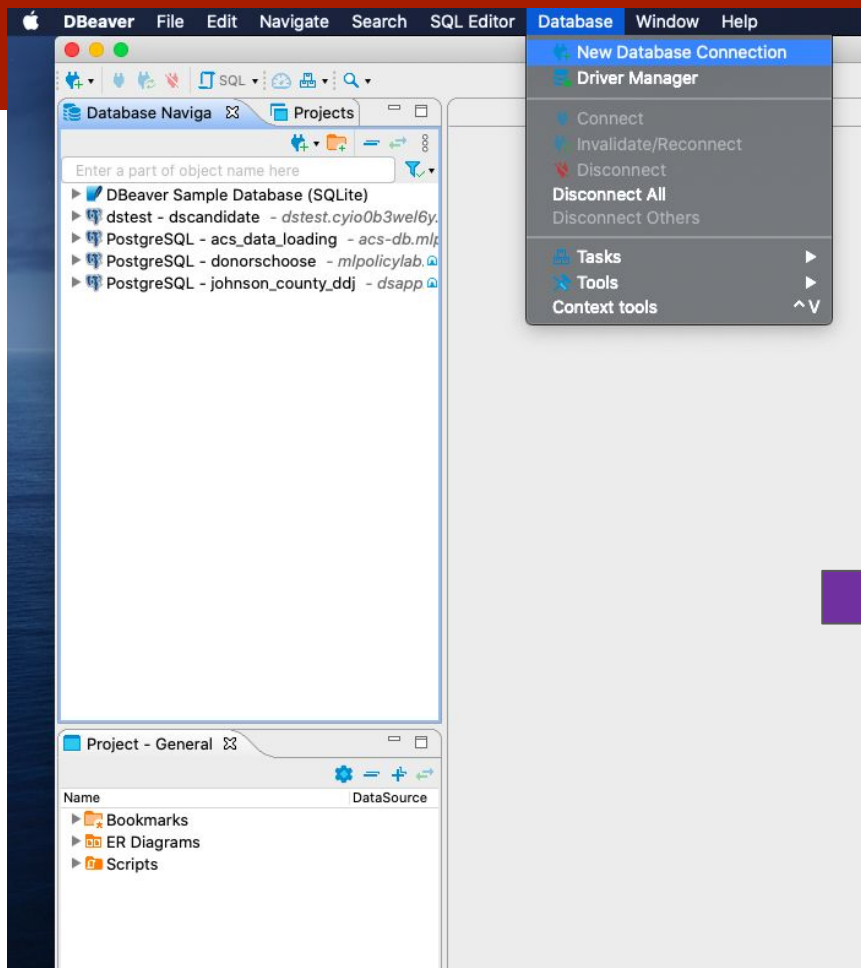
## When you use dbeaver to connect to the database



# Getting DBeaver

- <https://dbeaver.com/edition/community/>
- Install the community edition (because it's free)
- Install any drivers it's asking you to install

# Create a new connection and select postgres



Connect to a database

### Connection Settings

PostgreSQL connection settings

PostgreSQL

Main PostgreSQL Driver properties SSH Proxy SSL

Server

Host: database.mlpolicylab.dssg.io Port: 5432

Database: group\_students\_database

Authentication

Authentication: Database Native

Username: your\_andrew\_id

Password:  ☒ Save password locally

Advanced

Session role: Local Client: PostgreSQL 13.2

You can use variables in connection parameters. [Connection details \(name, type, ...\)](#)

Driver name: PostgreSQL [Edit Driver Settings](#)

[Test Connection ...](#) [< Back](#) [Next >](#) [Cancel](#) [Finish](#)

This is the **\*database server\*** we are using all semester

This is the test database name for now. Your project will have a different database name so you'll need to replace this later.

Enter your andrew id here

This is your **\*database\*** password. We have stored it in a file called **.pgpass** and placed it in your directory on the server - it will be a long string with lots of words combined. When you log on to the server through ssh, type `cat .pgpass` to see it (it will start after your andrew id in `.pgpass`, separated by a colon)

Connect to a database

PostgreSQL

### Connection Settings

PostgreSQL connection settings

Main PostgreSQL Driver properties **SSH** Proxy SSL

☒ Use SSH Tunnel


Profile:

Settings

Host/IP:  Port:

User Name:

Authentication Method:

Private Key:  

Passphrase:  ☒ Save Password

Advanced

Implementation:

Local host:  Remote host:

Local port:  Remote port:

Keep-Alive interval (ms):  Tunnel connect timeout (ms):

ⓘ You can use variables in SSH parameters.

You need to “tunnel” through the class server to get to the database so this tab needs your server information

This is the \*class server\* we are using. – same as the one you ssh’ed to earlier

Enter your andrew id here

You can directly enter the path to your private key file or navigate to it using the folder icon. This will typically be ~/.ssh/id\_rsa for mac/linux or C:\Users\username\.ssh\id\_rsa for windows

When you generated your ssh key, you may have entered a passphrase to protect it. If you did, you will need to enter it here. If you left it blank, you can leave it blank here.

# Debugging

If you get an error like **invalid privatekey: [B@7696c31f:**

- You may need to install a different SSH package called "SSHJ" -- under the Help menu, choose "Install new Software" then search for SSHJ and install the package (you'll need to restart dbeaver). After restarting, choose "SSHJ" in the drop-down under advanced (should be labeled either "Implementation" or "Method") when setting up the tunnel
- If that doesn't work, you can try changing the format of your private key: go to the directory where your private key is and type **ssh-keygen -p -m PEM -f id\_rsa** and try dbeaver again

# Were you able to connect?

Try some commands:

```
SELECT 1+1 AS foo;
```

or

```
SELECT CURRENT USER;
```