

COMP9120 Relational Database Systems

Tutorial Week 1: Introduction

Every week there will be tutorials that provide an opportunity to gain practical experience in the areas introduced in the preceding lecture. This week we will introduce you to your tutor, your classmates, and your tutorial sessions.

Exercise 1. Introduce yourself.

Please introduce yourself to the class. Feel free to mention your name, country of birth, prior educational details, current work experience, hobbies, future goals etc.

Exercise 2. Meet your fellow classmates.

Within week 2, you will need to form groups of 3 to complete the assignments, so here is an opportunity to get to know people. Talk to as many other students in the room as possible. Try to find someone to fit each of the following descriptions (see the table below) and add their names in the associated box. Aim to complete an entire row or column.

Someone who has more than 2 brothers or sisters	Someone who has just started their first semester	Someone who works with databases	Someone who can speak a different language to you
Someone who plays an instrument	Someone who has been employed by the University of Sydney	Someone who can program in a different language to any you have used	Someone from the same country as you
Someone who can swim	Someone who has completed a unit of study outside of the IT faculty	Someone who has not taken an undergraduate degree in IT	Someone who has been on TV
Someone born in the same month as you	Someone who lives on or near campus	Someone who has done an internship in IT	Someone who has completed a course at the Centre for English Teaching

Once you have formed your group, please sign up for an Assignment Group on Canvas → "People" → "Group."

If you have not formed a group by Week 2, we will randomly assign you to one.

You are also welcome to form a group with classmates from different tutorial sessions.

Exercise 3. Accessing remote PostgreSQL server

Throughout this semester, you will be working with **PostgreSQL v16.2**. You can remotely access the PostgreSQL server that is maintained by School of CS via **pgAdmin**. The pgAdmin application allows you to interact with the PostgreSQL database server via an intuitive user interface.

pgAdmin v8.14 is already installed in the Computer Science lab, simply search for "pgadmin" and start it running. On your personal machine, if pgadmin4 is not installed, you can download and install it from <https://www.pgadmin.org/download/>.

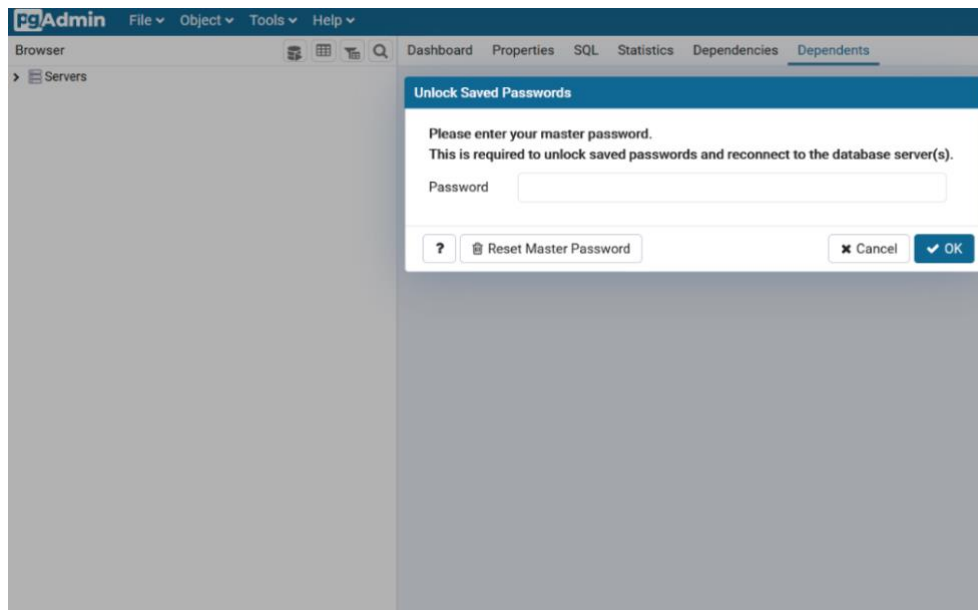
Note that, if you want to access PostgreSQL server from outside the university network, you will need to first connect securely to the university network using VPN – refer to the following link:

https://sydneyuni.service-now.com/sm?id=kb_article_view&sys_kb_id=33263a20c3f11a94b22c51ca05013141&sysparm_tsqueryId=f90a62cbdb937f44c8a5773c349619f2&sysparm_rank=7&spa=1

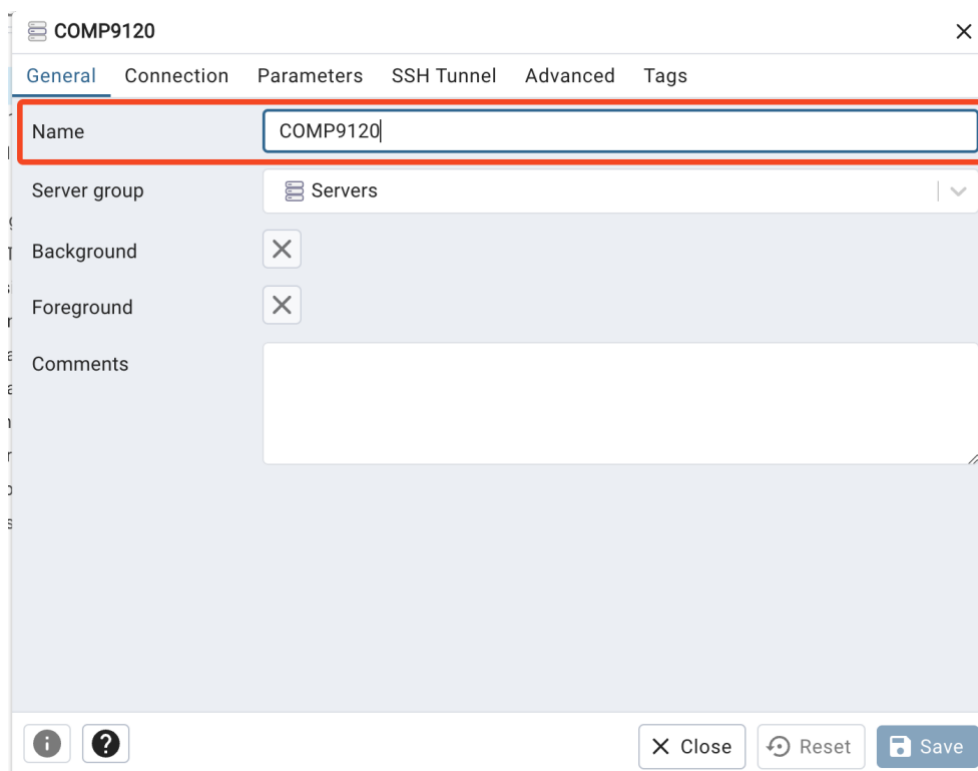
*For students who have just enrolled and **do not yet have database credentials**, you may temporarily install PostgreSQL locally to get started. However, once you receive your database credentials, please switch to using the university server, as that is our primary setup for the course.*

See "[Connect to a Local PostgreSQL Server](#)" if you need assistance with connecting to a PostgreSQL local server.

1. Start pgAdmin 4. You should see a screen like the one shown below. Type in the master password for pgAdmin and click OK.



2. Click on **"Add New Server"** or right click on **"Servers -> Register -> Server..."**. You should see the following screen. Type in Name (this can be anything you like, e.g. COMP9120)



3. Click the tab “**Connection**”.

Enter the connection information which sent to **your school email** [*COMP9120 postgres database*]

- Host name/ address: server hostname from the email
awsprddb4836.shared.sydney.edu.au
- Username: username which starts with y25s1c9120_
- Password: initial password

Register - Server

General **Connection** Parameters SSH Tunnel Advanced Tags

Host name/address: awsprddb4836.shared.sydney.edu.au server hostname

Port: 5432

Maintenance database: postgres

Username: y25s1c9120_ username

Kerberos authentication? ☐

Password: Initial password

Save password? ☒

Role:

Service:

? ? X Close ↺ Reset 💾 Save

4. Click the tab “**Advanced**”, copy your username into the field “DB restriction”, and then select the dropdown option Create “y25s1c9120_username”.

The DB restriction field is used to limit a user to see only the specified database. (Try enabling and disabling this setting to observe the differences in the pgAdmin database list. You can update this setting in the “Properties” tab of the server but only when the server is disconnected.)

Register - Server

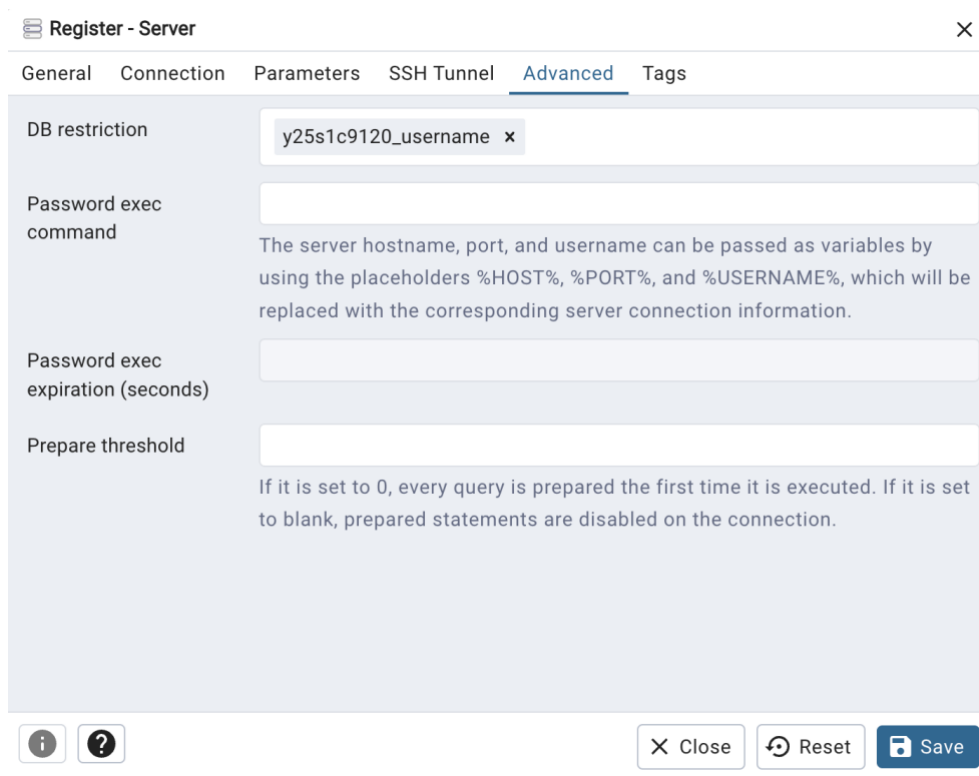
General Connection Parameters SSH Tunnel **Advanced** Tags

DB restriction: y25s1c9120_ username

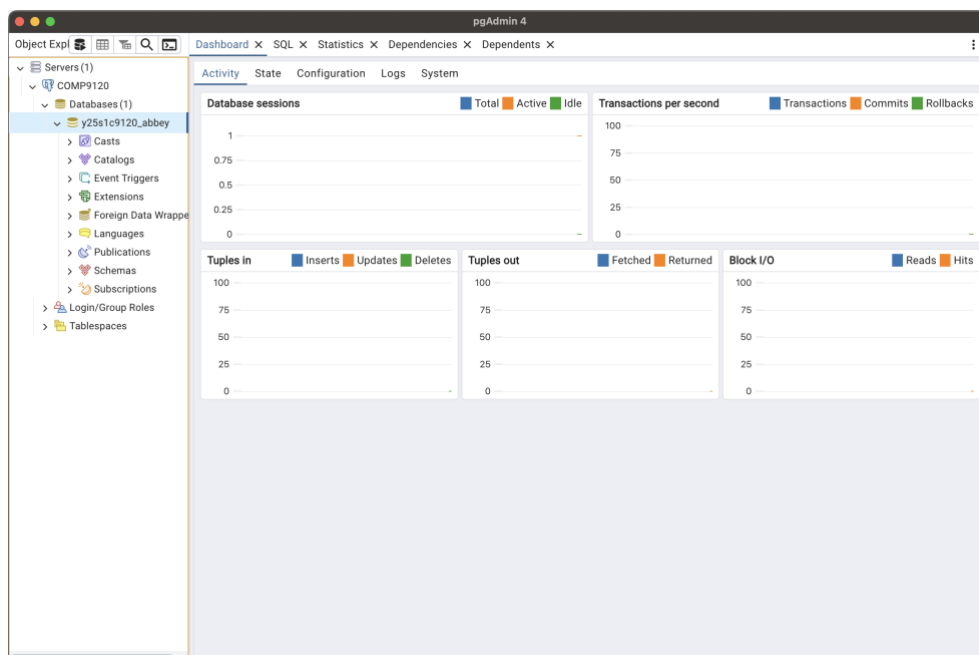
Password exec command: Create "y25s1c9120_" username


The server hostname, port, and username can be passed as variables by using the placeholders %HOST%, %PORT%, and %USERNAME%, which will be replaced with the corresponding server connection information.


Password exec expiration (seconds):

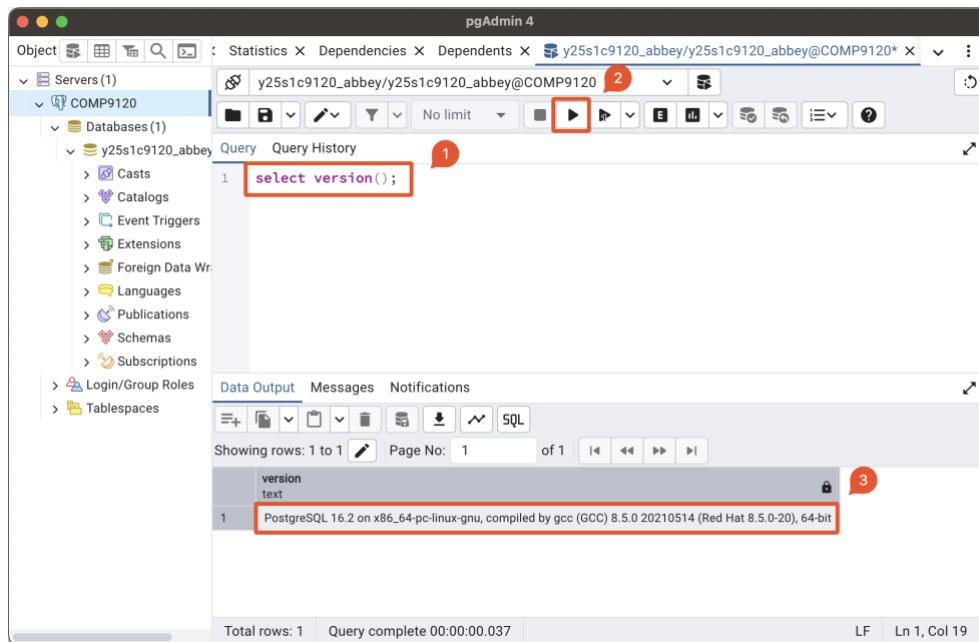


5. Click **“Save”**. You should see the following screen:



6. Select your database, the one named the same as your username. Click on it, then right click your database -> **“Query Tool”** OR click the icon looks like  on the top left-hand side to launch the query tool.

In the query editor, type `SELECT VERSION();` Then run this query with execute  or F5.



7. Change your password by executing the following SQL command:

```
ALTER USER YOUR_USERNAME PASSWORD 'pwd';
```

Replace `pwd` with a new password that you wish to set for yourself. ***Please remember your new password as you will need it later in this course. If you forgot it, please send email to Greg.greg.ryan@sydney.edu.au request a password reset.***

Click  “Execute/Refresh” or F5.

You should then see “query returned successfully in ** msec.” displayed on the Messages tab in the Output panel, meaning your password was changed successfully!