

# Canadian Bioinformatics Workshops

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# Logging into AWS

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Infectious Disease Genomic Epidemiology

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# Learning Objectives

- By the end of this lecture, you will:
  - Log into your AWS instance

# Amazon Web Services (AWS)

- Infinite storage (scalable): S3 (simple storage service)
- Compute per hour: EC2 (elastic cloud computing)
- Ready when you are High Performance Computing

# Some of the challenges with cloud computing

- Not cheap!
- Getting files to and from there
- Not the best solution for everybody
- PHI: personal health information & security concerns
- In the USA: Patriot act

# Things we have set up

1

Loaded data files to AWS

2

We brought up an Ubuntu (Linux) instance, and loaded a whole bunch of software for NGS analysis.

3

We then cloned this, and made separate instances for everybody in the class.

4

We've simplified the security: you basically all have the same login and file access, and opened ports. In your own world you would be more secure.

# SSH (Secure Shell)



**An encrypted  
network protocol**



**To connect to  
remote  
machine/server**



**Server fingerprint**



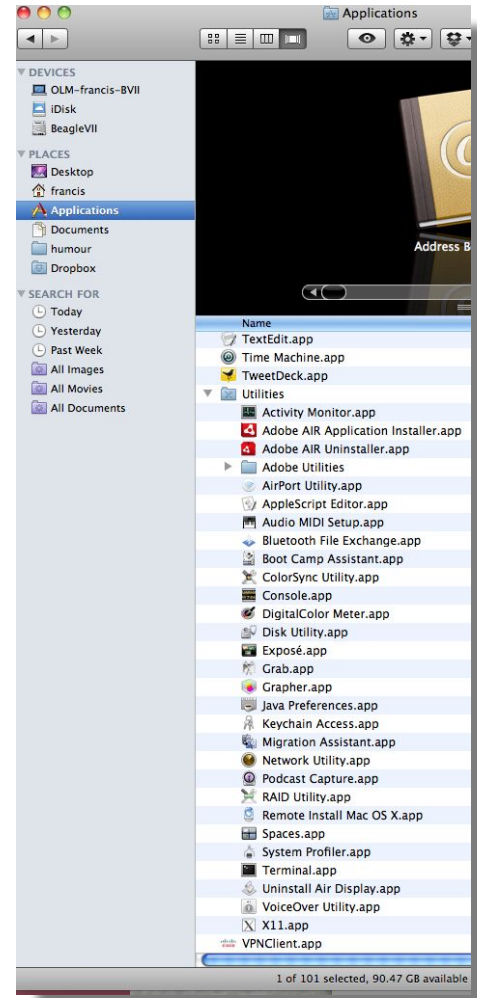
**Public key  
authentication**

Public key, Private key



# Log into AWS Instance

- Mac/Linux: terminal



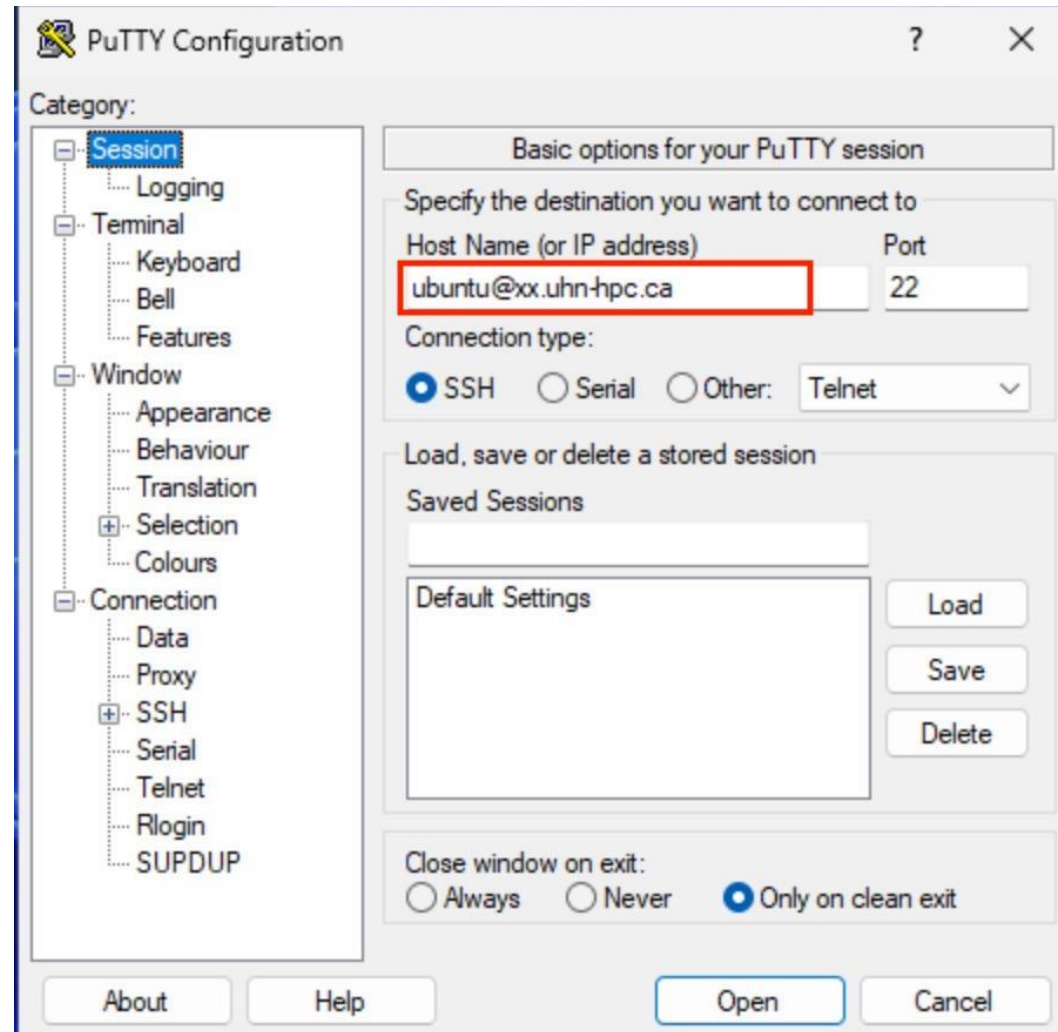
## Mac/Linux

- `cd Downloads`
- `chmod 600 CBW.pem`
- `ssh -i CBW.pem ubuntu@###.uhn-hpc.ca`
- Answer "yes" when you ask if you want to continue connecting

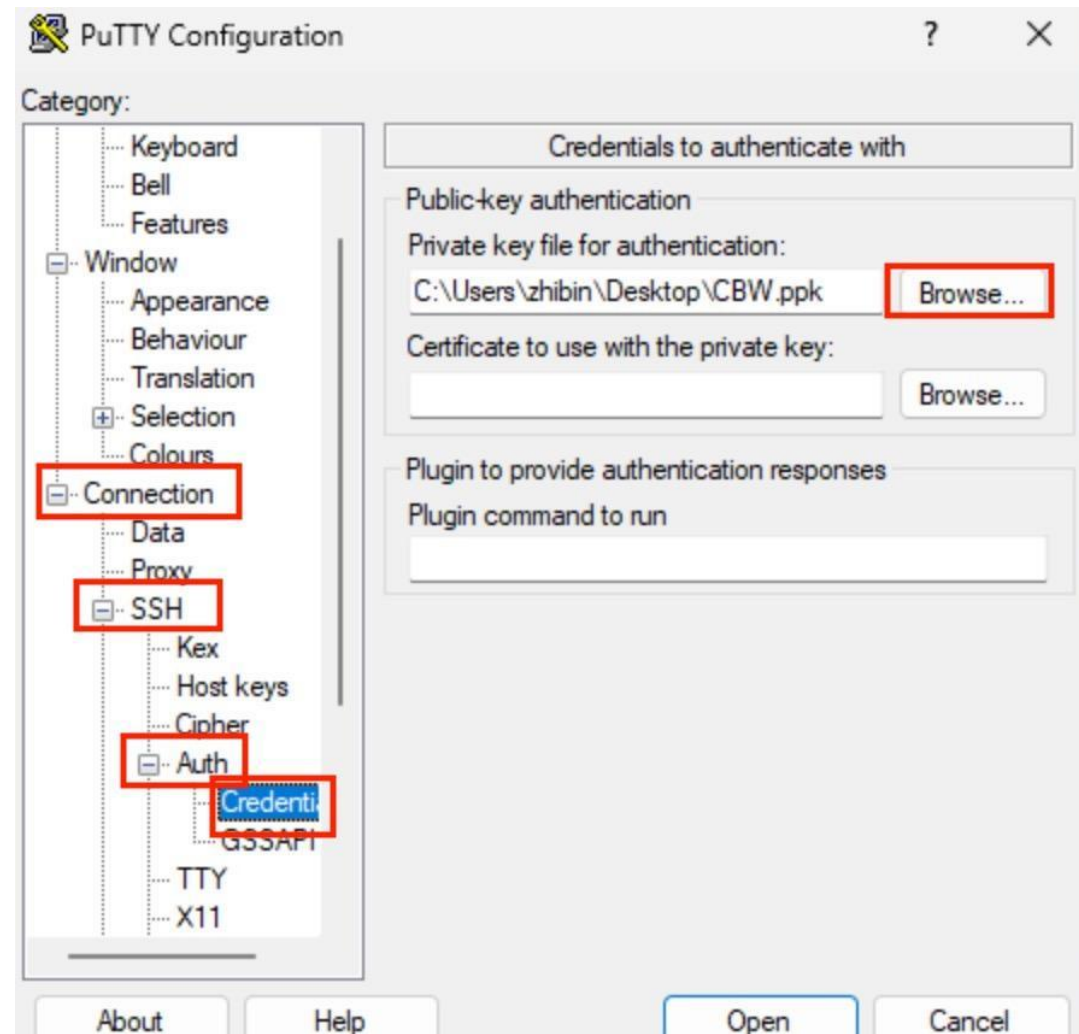
## Windows

- Download putty.exe
- URL: <https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>



Use `ubuntu@##.uhn-hpc.ca`



Use the ppk file as the private key



# http://##.uhn-hpc.ca/

 40.uhn-hpc.ca

## Index of /

Name↓	Last Modified:	Size:	Type:
<a href="#">metapro_tutorial/</a>	2022-May-24 15:36:52	-	Directory
<a href="#">Module2_test/</a>	2022-May-24 11:51:26	-	Directory
<a href="#">Module4/</a>	2022-May-24 13:25:16	-	Directory
<a href="#">test.txt</a>	2022-May-24 07:59:10	0.1K	text/plain; charset=utf-8

lighttpd/1.4.55

**http://##.uhn-hpc.ca:8080**

### Sign in to RStudio

Username:

Password:

☐ Stay signed in when browser closes

You will automatically be signed out after 60 minutes of inactivity.

**Sign In**

# We are on a Coffee Break & Networking Session

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