



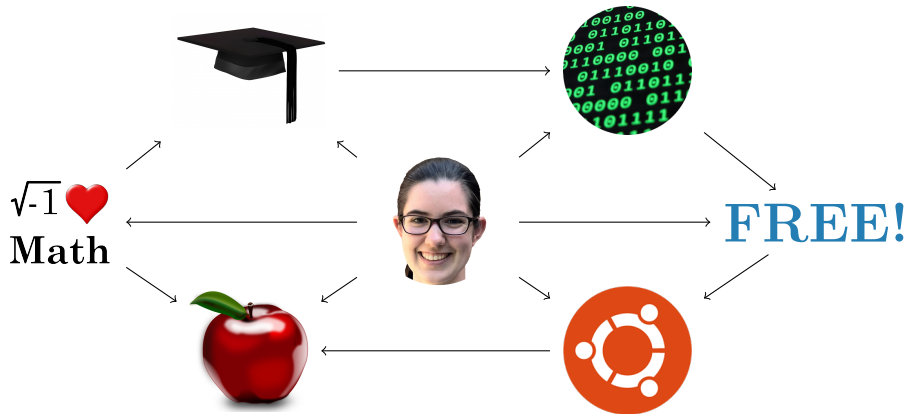
Meirian Lovelace-Tozer

@MeirianLT

@ResCom\_unimelb



# Who am I?



# Who are you?

In your table group...

- Introduce yourselves;
- Find one thing everyone on your table has in common;
- Introduce the person to your right and tell us one thing you learnt about them.

# Learning objectives

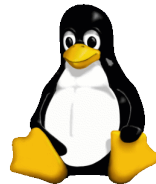
- Introduction,
- Log-in to virtual machine,
- Familiarisation with the Ubuntu desktop,
- The terminal and SUDO commands,
- Installing software,
- Transferring data.

# What is Ubuntu?



# What is Ubuntu?

- Ubuntu is a FOSS Linux distribution.
- FOSS = Free + Open-Source Software.  
People are encouraged to voluntarily improve the design of the software.
- Linux is an operating system.  
It manages all of the hardware resources associated with your desktop or laptop.



# Why use Linux?

- Are you concerned about viruses and malware?
- Do you hate it when your computer is running slow or crashes?
- Are you looking for stability and dependability?
- Do you like free things?

# Why we recommend Linux

- It's easier for the Administrators to keep secure for you.
- It's what the Administrators use.
- It's powerful, more versatile and inter-operable.
- It's free — and the software that runs on it is also free!
- **Most research software is written on and for Linux:**  
It's easier to install on Linux, there's better documentation for Linux and it's easier to repair on Linux.



# Your virtual machine

vm-172-26-**X-Y**.managed.cloud.unimelb.edu.au

# Scavenger hunt

Find and investigate the following items:

- ☐ Application finder:
  - ☐ Firefox,
  - ☐ Libre Office,
  - ☐ Text editor,
- ☐ The date,
- ☐ Folders/Directories,
- ☐ Where windows minimize,
- ☐ More workspaces,
- ☐ The panel,
- ☐ Settings Manager,
- ☐ Terminal emulator,
- ☐ Your username.

# List, help and manual

- `ls`      `list` files in the current working directory.
- `ls --help`
- `man ls`
- `xeyes`

# Where am I?

Download data-shell.zip: <http://go.unimelb.edu.au/bb6r>

- `pwd`            print the current **w**orking **d**irectory.
- `cd`            change **d**irectory.
- `less`          view the contents of a text file.
- `nano`          create/edit a text file.
- `mkdir`        make **d**irectory.
- `cp`            copy.
- `rm -r -i`      **r**emove a file or directory, with prompts.

rm \*

<https://youtu.be/yIz9eqwLt9U>

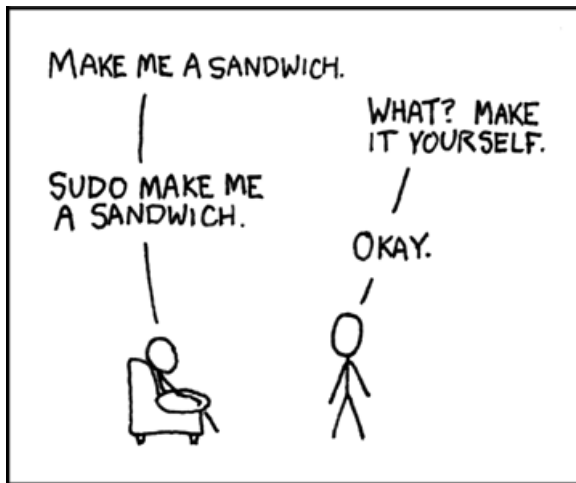
# Challenge

- Find and read the file called `haiku.txt`
- Create a new file and write a haiku about lunch.



- What's a haiku? Line one has 5 syllables, line two has 7 syllables, and line three has 5 syllables.

# Super-User DO



# Super-User DO

- `sudo` = Super-User DO
- `apt` = Advanced Packaging Tool
- `sudo apt update`  
“update the database with the currently accepted latest versions”
- `sudo apt upgrade`  
“update all the software I have installed to the latest versions”



# Super-User DO

- `sudo apt install cowsay`
- `sudo apt install sl`
- `sudo apt install cmatrix`
- `sudo apt install python3-pip python3-dev r-base`

# Installing software

Install:

- RStudio

Google “ubuntu install rstudio”

[www.rstudio.com/products/rstudio/download-server](http://www.rstudio.com/products/rstudio/download-server)

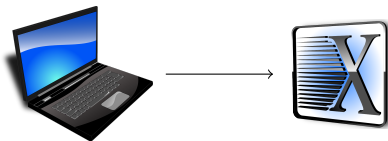
- Jupyter

Google “ubuntu install jupyter”

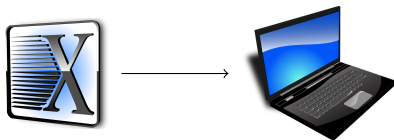
[www.digitalocean.com/community/tutorials/how-to-set-up-jupyter-notebook-with-python-3-on-ubuntu-18-04](http://www.digitalocean.com/community/tutorials/how-to-set-up-jupyter-notebook-with-python-3-on-ubuntu-18-04)

# Transferring data

- Local machine to virtual machine.



- Virtual machine to local machine.



# Topics worth knowing, but not for today...

- SSH: Secure Shell. The software and protocol used to log into servers. If a server doesn't have a desktop (only command line!)
- Vim: popular and powerful editor.
- The command line is powerful: It took the “full stack” 26min to do something the command line did in 12s.
- [adamdrake.com/command-line-tools-can-be-235x-faster-than-your-hadoop-cluster.html](http://adamdrake.com/command-line-tools-can-be-235x-faster-than-your-hadoop-cluster.html)

# Thank you

Thanks for coming — I hope you enjoyed this training!

- Feedback survey: <https://go.unimelb.edu.au/bym6>
- Come along to our next Introduction to Ubuntu training <https://rescomunimelb.eventbrite.com>
- Interested in becoming a leader or presenting?  
Let me know by contacting me at  
[mlovelace@unimelb.edu.au](mailto:mlovelace@unimelb.edu.au) or [@MeirianLT](#) ☺