

Analysis Methods in Atmospheric and Oceanic Science

AOSC 652

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Web Site: <http://www.atmos.umd.edu/~rjs/class/fall2016/>

31 Aug 2016

Textbooks:

[FORTRAN 77 Programming](#) (2nd edition, 1990) by T. M. R. Ellis

[Numerical Recipes in FORTRAN 77: The Art of Scientific Computing](#)

(2nd edition, 1992) by William H. Press et al.

On line pdf: <http://www.nrbook.com/a/bookfpdf.php>

[Numerical Analysis](#) by Richard L. Burden and J. Douglas Faires

Specialty textbooks used second half of course:

[An Introduction to Programming with IDL](#) by Kenneth P. Bowman

[Numerical Computing with MATLAB](#) by Cleve Moler

[Python Programming and Visualization for Scientists](#) by Alex DeCaria

Between Now and Wednesday

- **Between now and Wed**

- **Read up on general Linux info (see links on the parent page)**

- Familiarize yourself with basic commands for copying files, moving files, etc.
- We'll spend time Wed on these basic commands

- **Determine which Linux text editor is “right for you”**

Choices: vi, emacs, nano, nedit, etc

- Talk to other students !
- This is not an iron clad decision; we'll be happy to help you switch to another editor, should you so desire

- **Printout and complete Honor Code and Student Survey (parent page)**

- If you do not have access to this building and this room “after hours”, please see June Sherer, room 3407 CSS Bldg to arrange.

Print out and complete this form:

<http://www.atmos.umd.edu/services/personnel/CardKeyAccess.pdf>

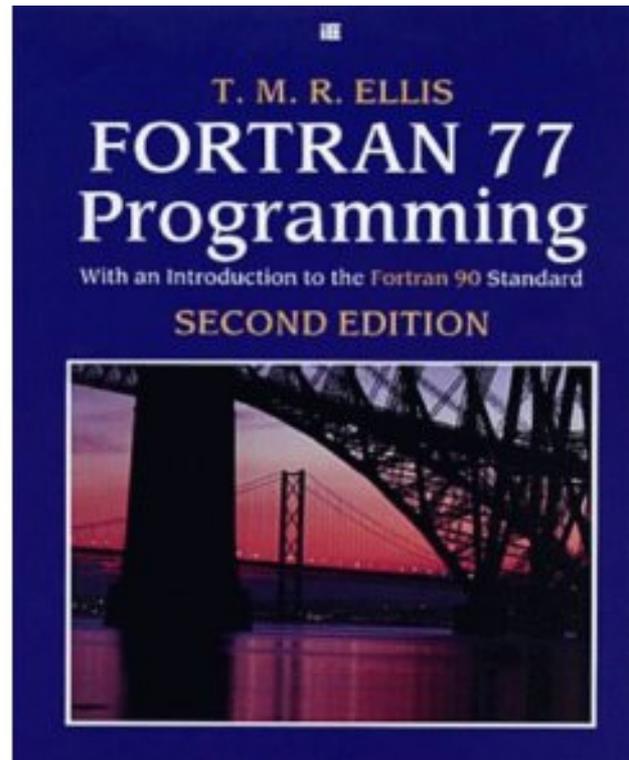
before seeing June. Request access to CSS building as well as rooms 3408 & 3425

If you are an AOSC student *or* your research is supported by an AOSC faculty member, please do not write anything about the course on the form, as your access should extend after the class. Otherwise, please note AOSC 652 on the form

If you have not brought \$20 to class today,
please bring on Friday 😊

If you have a 2 pm class, do not have a book, and have \$20, please see Walt now to pick up a copy of the book

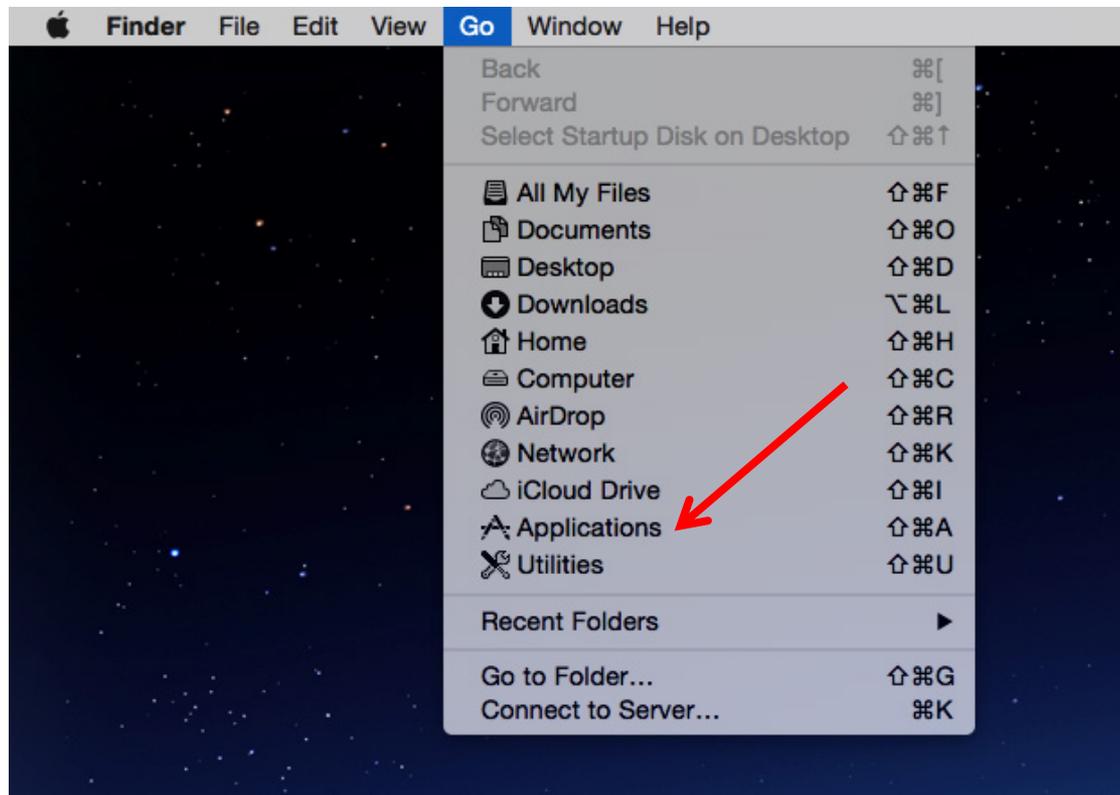
If you do not have a 2 pm class, please wait until end of this class



AOSC 652: Let's Login To Linux

Log in Steps

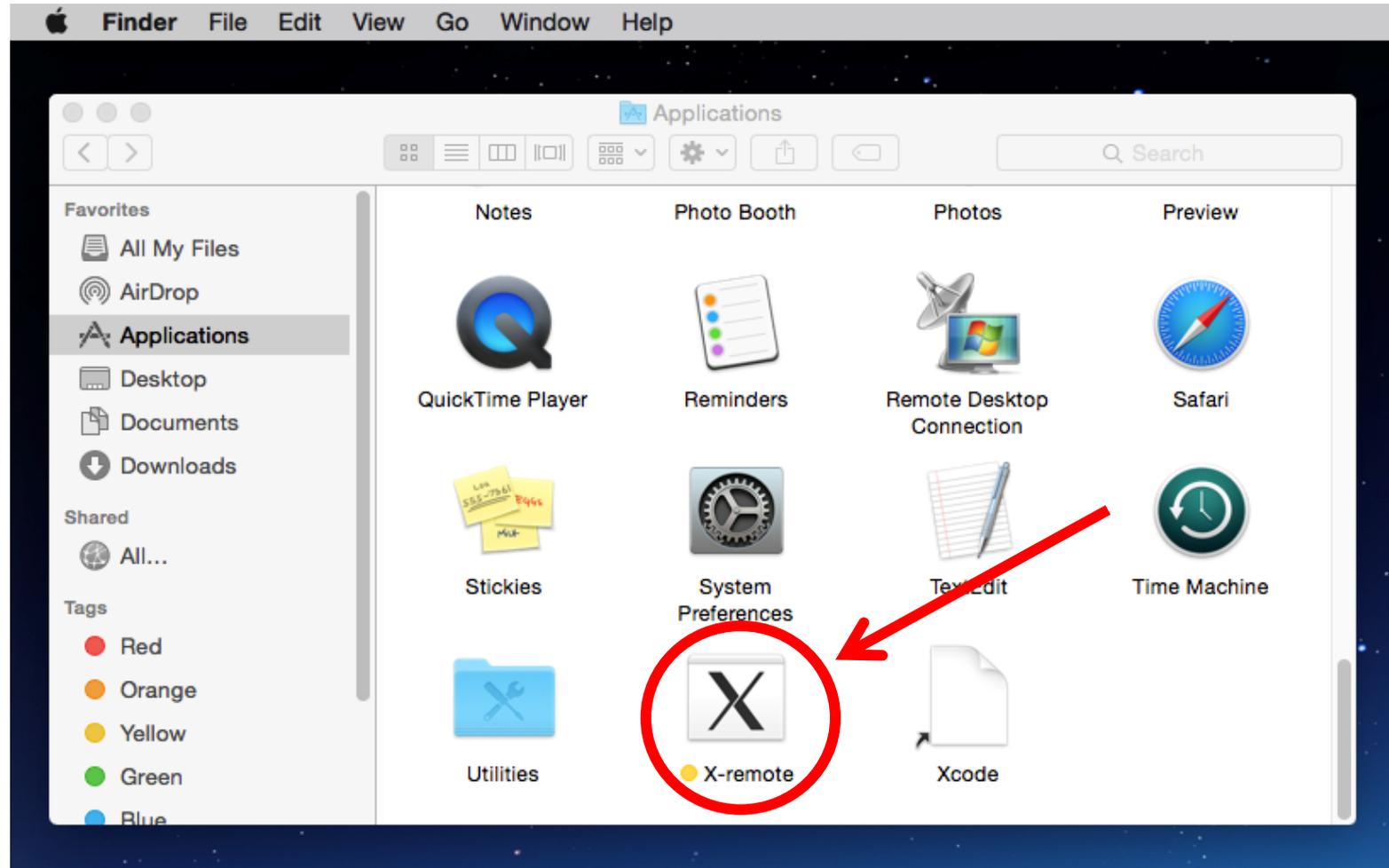
1. Enter **guest** for user name on the initial Apple login screen (not shown)
2. Under “Go” at the top, click Applications



AOSC 652: Let's Login To Linux

Log in Steps

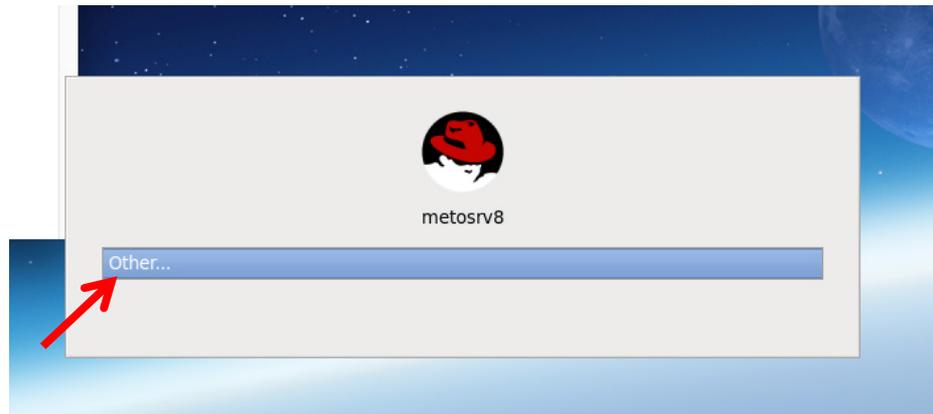
3. In the Applications folder, open X-Remote.



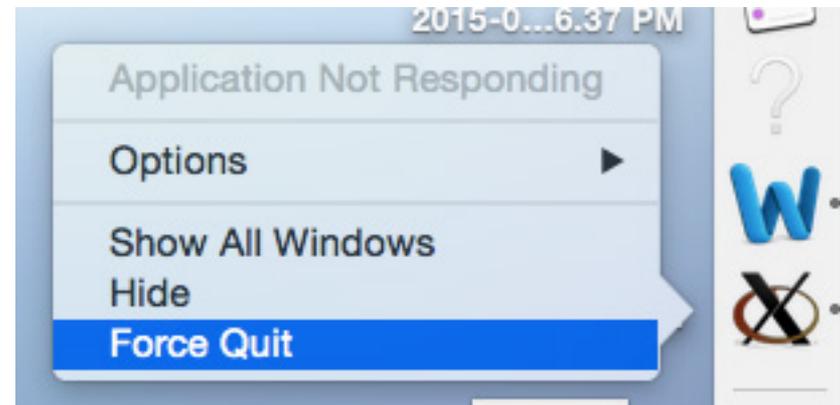
AOSC 652: Let's Login To Linux

Log in Steps

4a. Wait for the white terminal window and a redhat popup to appear and click “Other...” (If a white terminal appears, but no redhat popup appears after a short wait, see 4b)



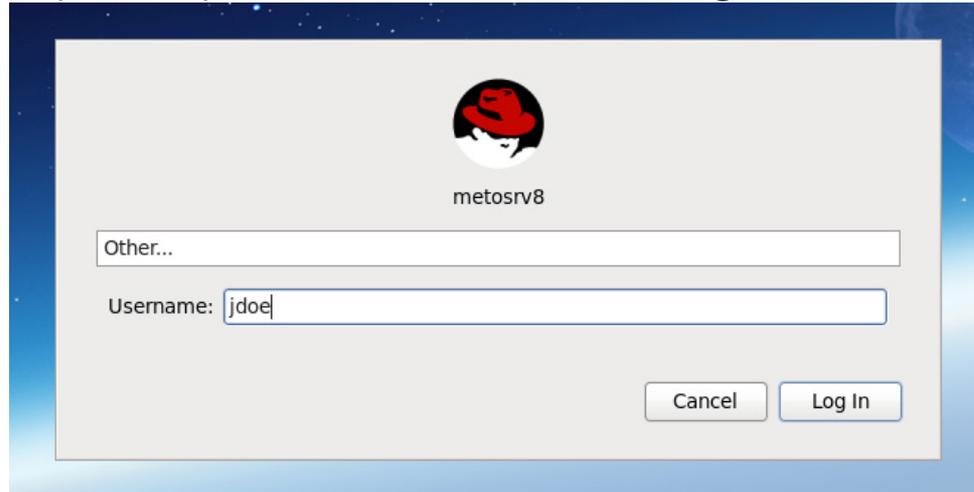
4b. If the above popup did not appear, right click the XQuartz icon on your dock bar and 'Force Quit'. Then close all terminal windows and try again from step 2



AOSC 652: Let's Login To Linux

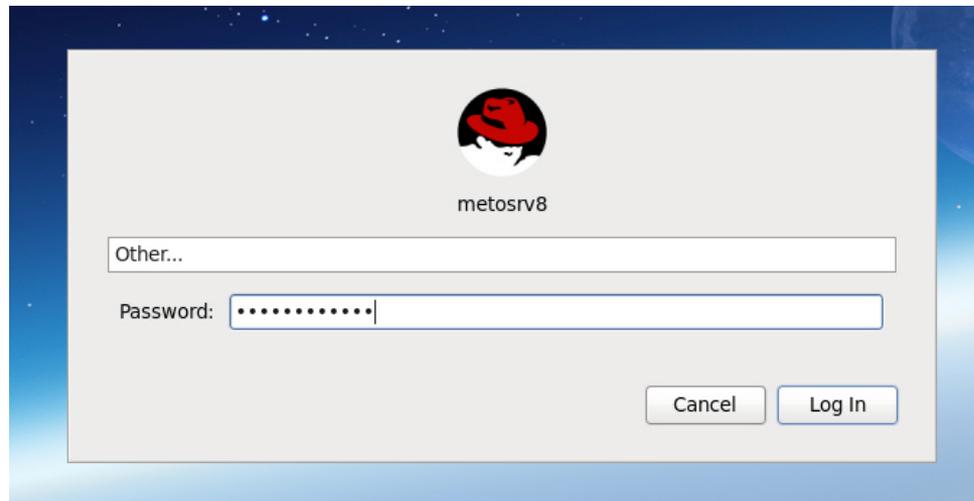
Log in Steps

5. Enter your (AOSC) user name and click log in



The screenshot shows a login dialog box with a blue border. At the top center is a circular icon of a red dragon on a white background, with the text 'metosrv8' below it. Below the icon is a text input field containing 'Other...'. Underneath that is a 'Username:' label followed by a text input field containing 'jdoe'. At the bottom right are two buttons: 'Cancel' and 'Log In'.

6. Enter your (AOSC) password and click log in



The screenshot shows the same login dialog box as above. The 'Other...' field is empty. The 'Password:' label is followed by a text input field filled with ten dots. The 'Cancel' and 'Log In' buttons are still present at the bottom right.

AOSC 652: Let's Login To Linux

Log in Steps

7. If this popup appears click cancel.

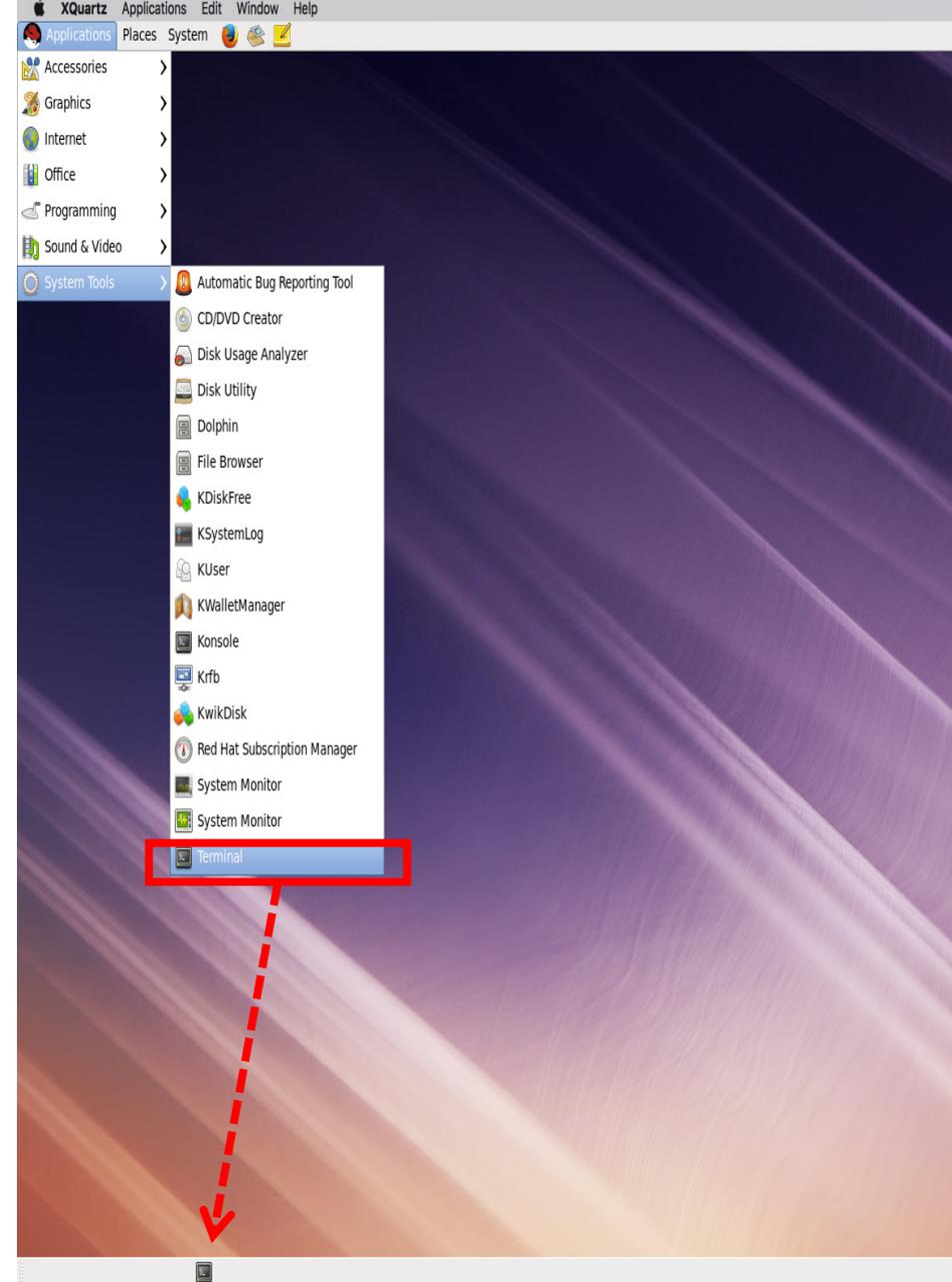


Strongly Suggested Tip

Often times several open terminal windows will be used. It is very useful to create a shortcut on your taskbar to open new terminal windows.

To do this, click “Applications” and mouse over “System Tools”; then click drag and drop the terminal icon to the lower taskbar (see right)

It may also be helpful to set the mac OS dockbar to the right side of the screen so that it does not block the Linux taskbar



```
Terminal
File Edit View Search Terminal Help
metosrv8{rjs}14: passwd
Changing password for user rjs.
Changing password for rjs.
(current) UNIX password:
```

New users: please change your password

- Enter passwd
- Follow directions 😊
- Whatever you enter will be your new aosc system passwd

From Monday

- Prior to 11:00 am on Wed, 31 Aug
 - Send an email to me ***stating your linux editor preference***
 - I'll collect results and present in class on Wednesday
- Class email
 - **When sending class related email:**
 - **Please include AOSC 652 in subject of message**
 - **Fine to address me as “Ross” both in email and in person**

AOSC 652: Student Editor Preferences

- vi: Alex, Angie, Chu-Chun, Dylan, Greg, Laura, Nikita, Patty, Sai
- emacs: Matt, Kelsey
- gedit: Agniv, Doug, Sai
- nano: Doug, Keenan

Responses so far from ***all-but-one*** students enrolled in the class, plus one student not yet enrolled in the class

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- nano: Doug

Responses so far from **all but one** student enrolled in the class, plus one student not yet enrolled in the class

Please let us know if you are an experienced user of vi

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- emacs: Matt, Kelsey
- gedit: Agniv, Doug, Sai
- nano: Doug

Responses so far from **all but one** student enrolled in the class, plus one student not yet enrolled in the class

Please let us know if you are an experienced user of emacs

Assignment #1 Due Fri, 5 pm

AOSC 652: Analysis Methods in AOSC

Name: _____

Assignment #1: 40 points

Due: Friday, 2 Sept, 5 pm (can place completed assignment in Ross's AOSC mailbox)

Late penalty: 8 pts per day

This assignment is an exercise in the use of a Linux text editor, several basic Linux commands, plus the use of the AOSC helper website to create a password protected webpage.

For most of our assignments, we will encourage you to work with other students, stopping short of sharing actual code. For this assignment, if you have questions, we ask you approach Ross, Jeff, or Walt (rather than other students) as we would like to interact with you and gauge your experience, which will help us better teach this course.

We will be available to assist students:

- **after class today**
- **by email appointment on Thurs**
- **after class on Fri**

Between Now and Wednesday

- **You had been asked to:**
 - **Read up on general Linux info (see links on the parent page)**
 - Familiarize yourself with basic commands for copying files, moving files, etc.
 - We'll spend time Wed on these basic commands

- **What is a subdirectory?**
- **How is a subdirectory created?**
- **How does one move between subdirectories?**
- **What is the difference between copy and move?**
- **How does one copy a file?**
- **How does one move a file?**
- **How does one edit a file?**

Readings For Fri & Next Week

Reading assigned for next week:

Ellis, Chapter 2 (16 pages) ← Please read by Fri

Ellis, Chapter 3 (20 pages) ← Try to read by Fri if you are able

Ellis, Chapter 9 (32 pages)

Ellis, Chapter 11, Sections 11.1 to 11.3 (9 pages)

Total: 77 pages : this is a 600 level class 😊

Links to these readings are present on the Week 2 class page

Ellis book written in a manner particularly helpful for folks *who have not programmed in the past* ... reading particularly important for these folks

Please read all 77 pages before our meeting on Wed, 7 Sept

AOSC 652: Logging out Properly Is Important

Log out Steps

1. To log out, click the XQuartz on the top menu bar and select “Quit XQuartz”. (If you do not see XQuartz at the top try clicking the Linux wallpaper background on the screen)



AOSC 652: Logging out Properly Is Important

Log out Steps

2. Click the apple in the top left corner and select “Log Out”

