

Module 2: Linux & Scripting

Steve Doyle

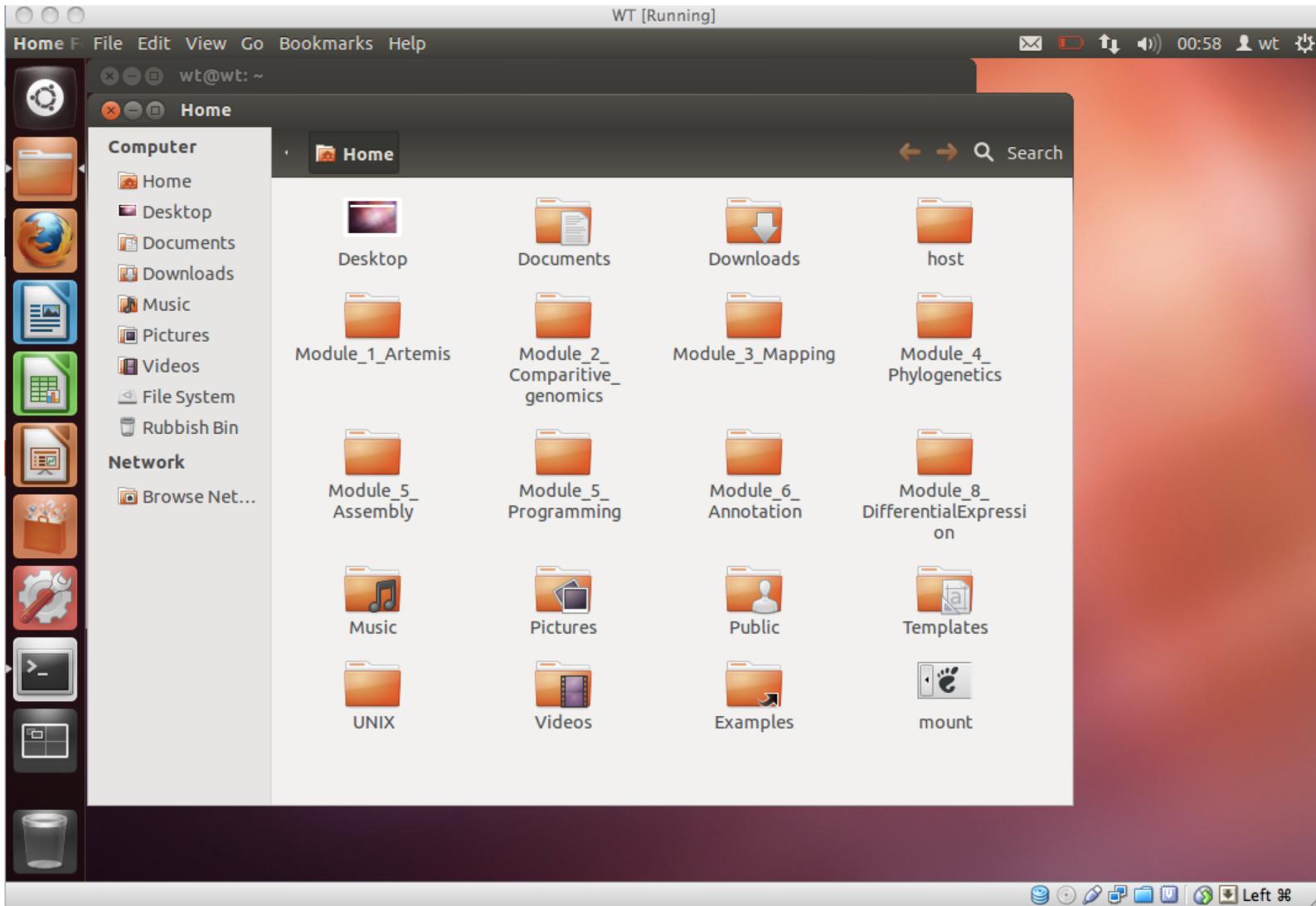
Wellcome Sanger Institute
stephen.doyle@sanger.ac.uk

Working with Pathogen Genomes 10-14th May 2021

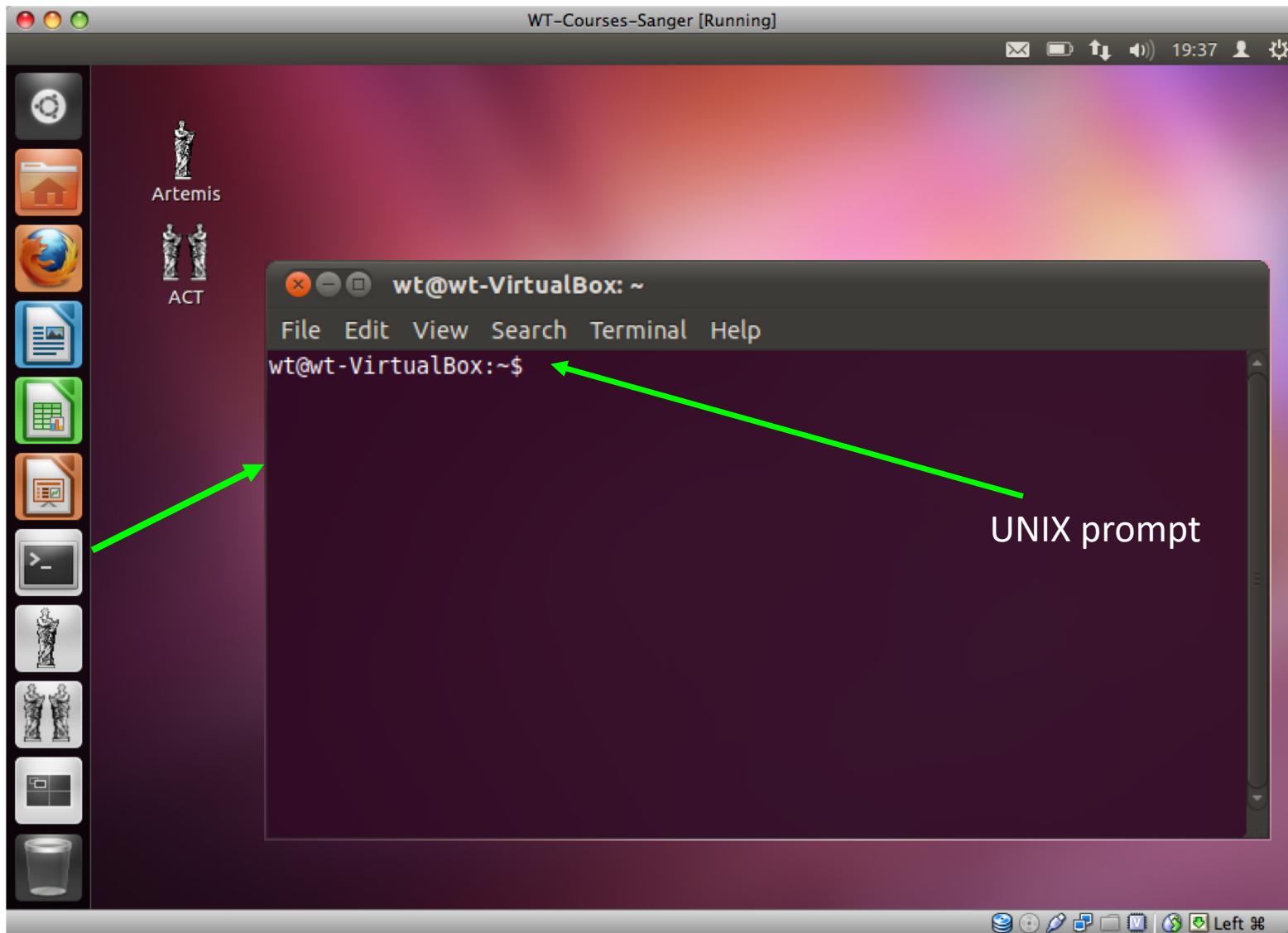
Unix / Linux

- ▶ What is Unix?
 - ▶ Standard operating system (alternative to MS Windows, Mac OS)
 - ▶ Provides a way for you to interact with the computer
 - ▶ Many ‘flavours’ of Unix, using Linux
 - ▶ Originally created to provide a free UNIX-like OS for PCs
- ▶ Why use Unix?
 - ▶ Output of lots of biological research exists in large text files
 - ▶ Very suitable for working with such files
 - ▶ Powerful and flexible commands for processing large text files
 - ▶ Save you time
 - ▶ Widely used in scientific community
 - ▶ Powerful, robust and stable operating system

Using Unix



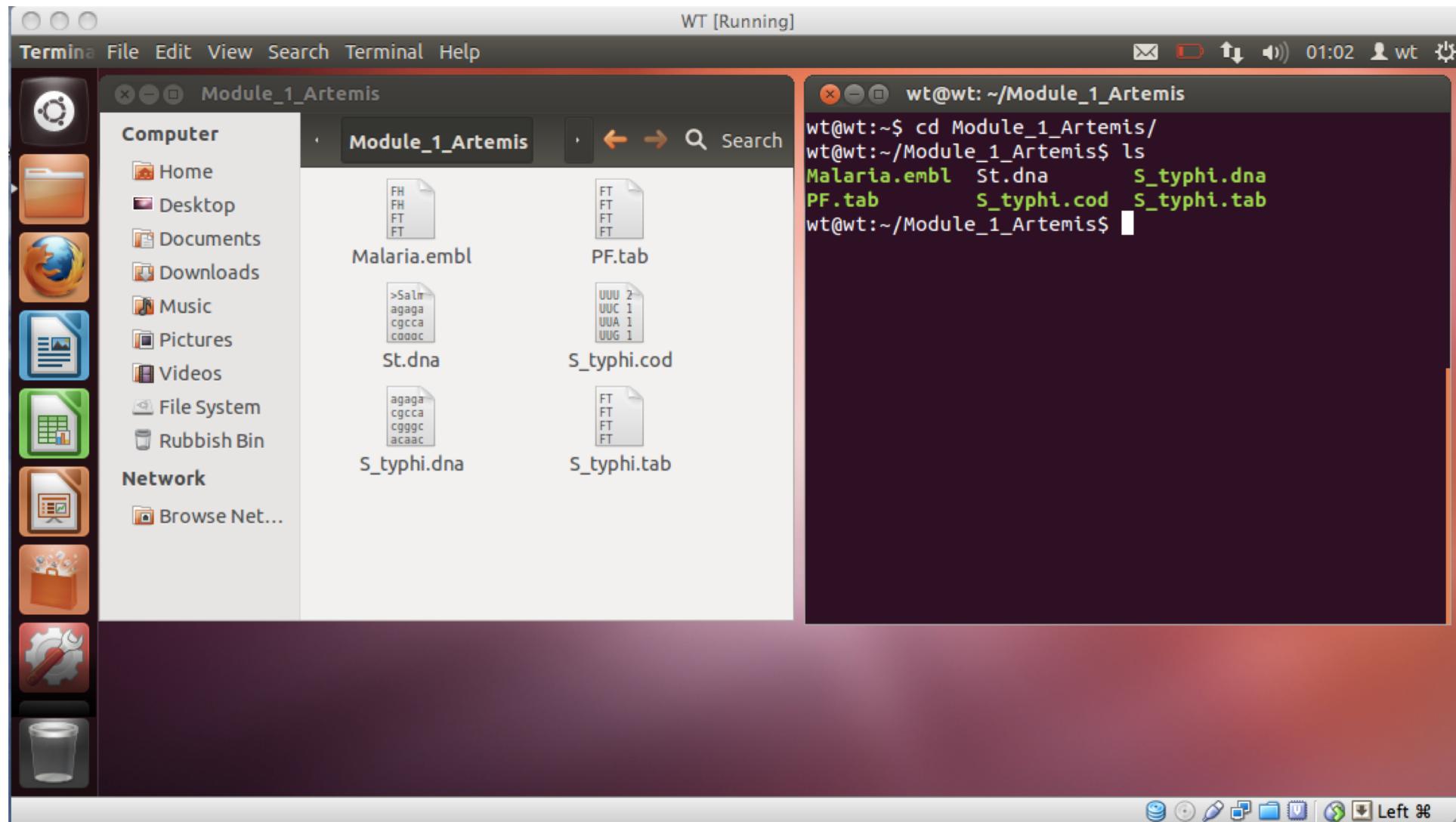
Terminals and the command line



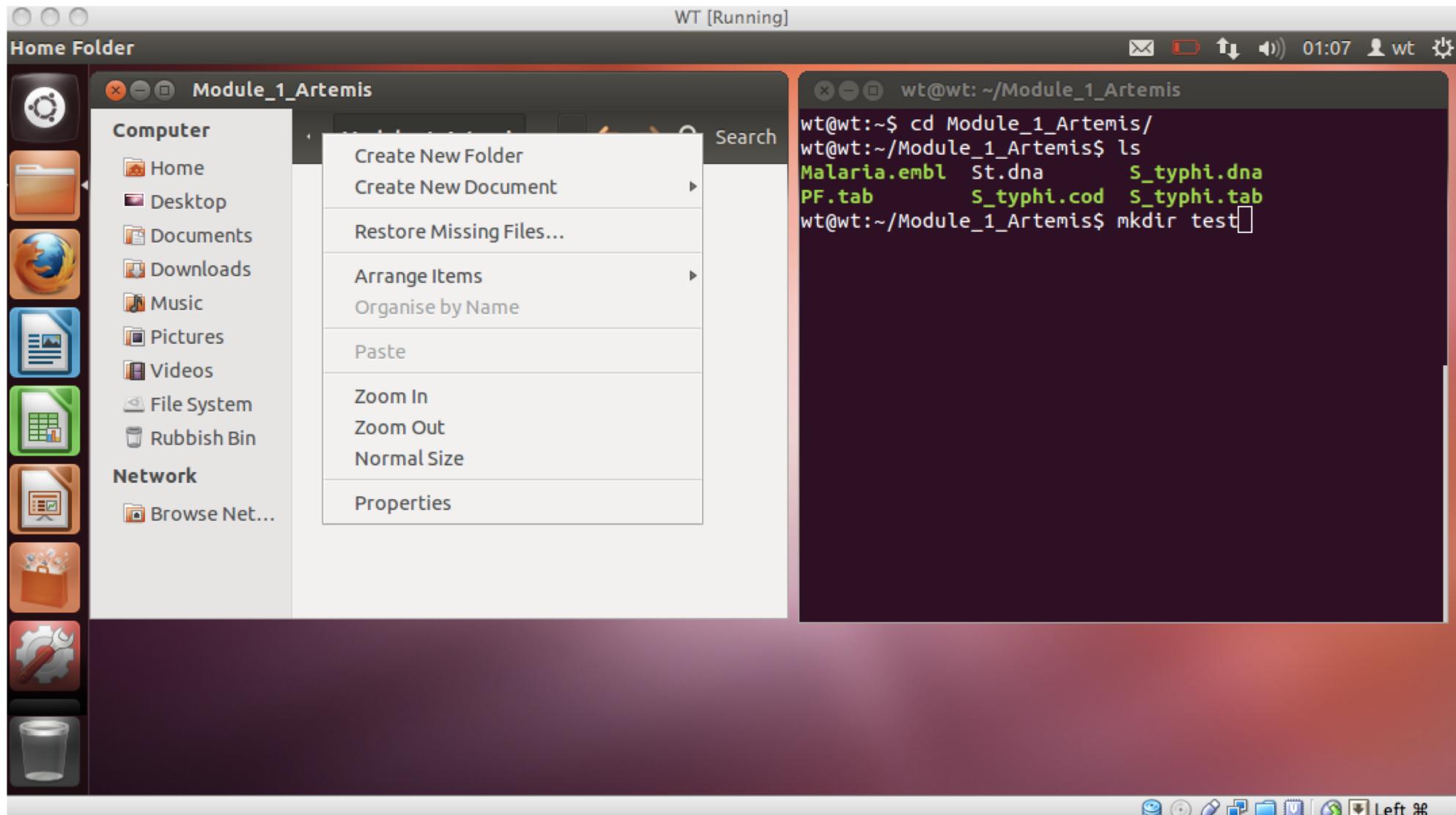
Unix commands

Command	What it does
<code>ls</code>	List the contents of the current directory
<code>cd</code>	Changes a directory
<code>mv</code>	Moves a file
<code>cp</code>	Copies a file
<code>rm</code>	Remove a file
<code>less</code>	Displays the contents of a file
<code>head</code>	Displays the first ten lines of a file
<code>tail</code>	Displays the last ten lines of a file
<code>cat</code>	Concatenate files together
<code>pwd</code>	Print working directory
<code>mkdir</code>	Make a new directory

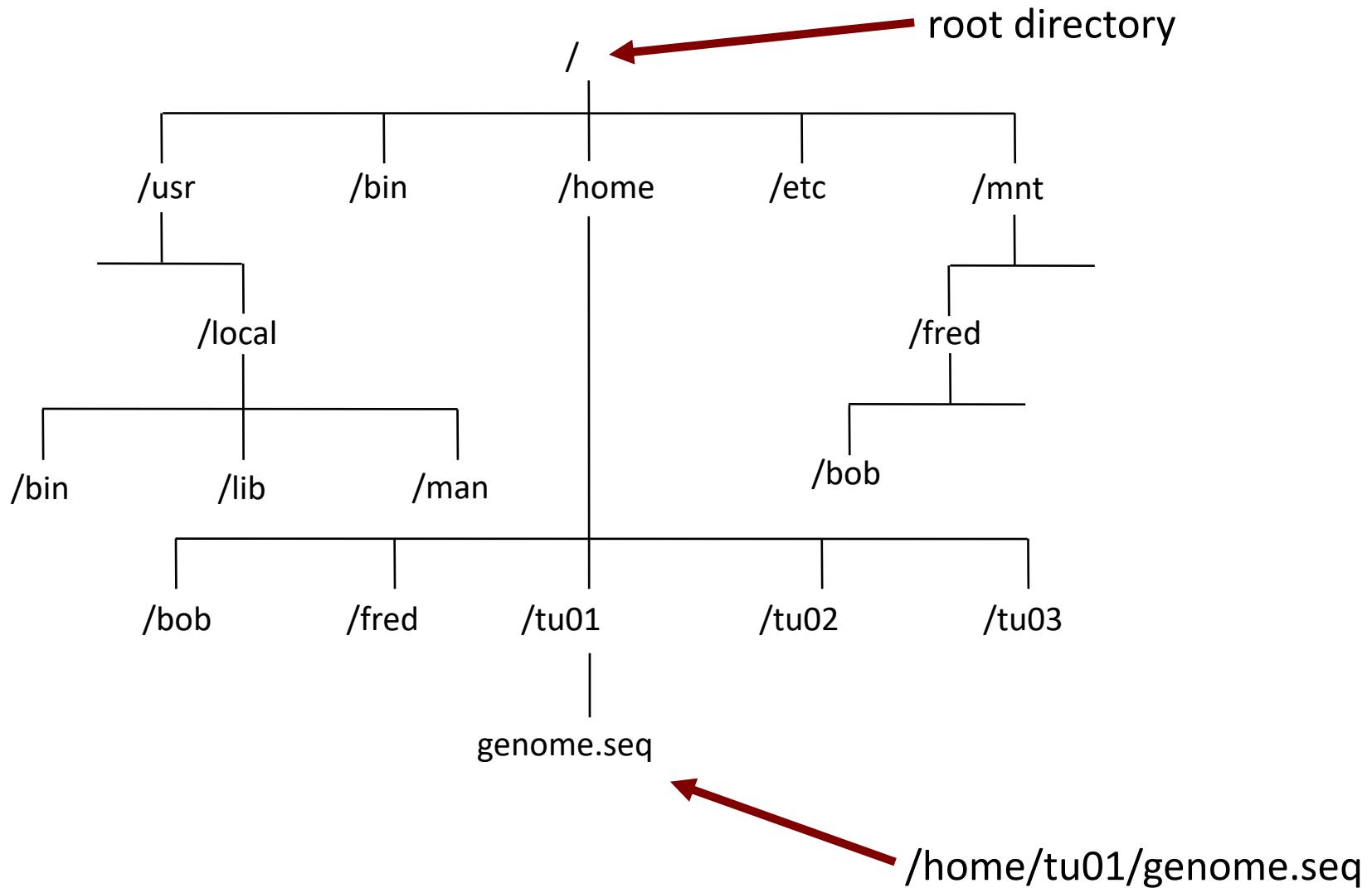
ls command



mkdir command



Directory structure



Unix tips and tricks

- ▶ Unix is case sensitive
 - ▶ Typing LS is NOT the same as typing ls
- ▶ You need to put spaces between
 - ▶ a command
 - ▶ the values passed to the command
- ▶ Unix is not psychic!
 - ▶ If you misspell the name of command or a file it will not understand you
- ▶ Error messages are often really informative. Read them carefully
- ▶ Keep organised!
 - ▶ File names, directory structure, commands used