

Increasing UNIX/AFS Quota

NOTE: To ensure you have sufficient space to run the assignments/projects of this class, do this ASAP!

1. Login to <https://accounts.pitt.edu/>
2. Click “EMAIL & MESSAGING” menu
3. Click “UNIX QUOTA”
4. Click “Increase Quota”

Connecting to Thoth

- Windows: You must use PuTTY/Powershell/Bash
 - [PuTTY](#)
 - Set Host Name field to `thoth.cs.pitt.edu` and click “Open”
 - Enter yes if prompted to accept the new ssh key
 - Enter your pitt username and password when prompted
 - Your password will not be displayed for your privacy
 - Powershell
 - ssh [pittusername@thoth.cs.pitt.edu](#)
 - Enter yes if prompted to accept the new ssh key
 - Enter Pitt password (note: Powershell will not show anything you type)
 - Bash
 - [Enable Bash on Windows](#)
 - ssh [pittusername@thoth.cs.pitt.edu](#)
 - Enter yes if prompted to accept the new ssh key
 - Enter Pitt password (bash will not show anything you type)
- OS X/Linux: Use ssh from terminal
 - \$ ssh [pittusername@thoth.cs.pitt.edu](#)
 - Enter yes if prompted to accept the new ssh key
 - Enter Pitt password (note: terminal will not show anything you type)

Basic Linux Commands

- / (forward slash) = Path separator
 - not \ (backslash)
- Directory shortcuts
 - . = current directory
 - .. = parent directory
 - ~ = home directory
 - / = root directory

Command	Description	Example
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pwd	Displays current directory	pwd
ls	Lists contents of current directory	ls ls -a (lists hidden items too)
cd	Changes or moves to a different directory	cd .. (moves up a directory) cd ~ (moves to home directory) cd ~/private/449 (moves to 449 folder in home directory/private)
mkdir	Creates a directory	mkdir 449 (creates new directory called 449)
rm	Removes or deletes a file/directory	rm hello.c (removes file named hello.c) rm -f 449 (removes folder named 449) rm -rf 449 (removes folder and files in 449)
rmdir	Removes an empty directory	rmdir 449 (removes folder 449 if it is empty)
mv	Moves or renames a file	mv test.c hello.c (renames test.c to hello.c) mv test.c ../test.c (moves test.c up a directory)
cp	Copies a file	cp test.c test2.c (copies test.c to test2.c)
logout	Logout from shell/SSH	logout
scp	Copies file(s) between machines	scp local.txt user@thoth.cs.pitt.edu :remote.txt (copies local.txt from your PC to remote.txt in your home directory of thoth) scp user@thoth.cs.pitt.edu :remote.txt local.txt (copies remote.txt on thoth to local.txt on your PC) scp user@thoth.cs.pitt.edu:path/to/file . (copies file with path after colon to local machine with same filename as on thoth)

Text Editors on Thoth

nano = super basic text editor

emacs = full featured text editor; emacs.org for info

vim = full featured, modal text editor

* basic commands

normal mode:

h = cursor left

j = cursor down

k = cursor up

l = cursor right

i = enter insert mode (so you can type!)

u = undo
ctrl+r = redo
dd = delete current line
dw = delete current word
/ (type term) -> enter = search
n = keep searching
:s = substitute (I'd recommend looking up help on this one! :h :s)
:h command or key -> enter = help window -> :q to close help window
:w = save (write)
:q = quit
:q! = quit, discarding changes
:wq OR :x = quit, saving changes
escape = leave insert/visual mode
* tutorials
> [openvim](#)
> vimtutor command on thoth

Text Editors on your computer

NOTE: You should still learn to use an editor on thoth! It is important to learn how to edit directly in a native linux environment.

[Notepad++](#) (Windows only) - use [WinSCP](#) to upload files to Thoth

[atom](#) - Use [remoteftp extension](#) to remote edit on Thoth

[vscode](#) - Use [remote extension](#) to remote edit on Thoth

Compiling and Running C Programs

- gcc = the C compiler
- gcc [-o output_file] input_file.c [input_file2.c ...] = compile C code from input_file.c to executable named output_file, ex) gcc -o hello_world hello.c
- ./program = run program
- your pwd is (typically) not in your \$PATH, so if you just type program name to run it won't work.