ECS 36A

Discussion 1

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Testing homework on csif machines

- To login to that computer:
  - ssh <uc-davis-login>@pc##.cs.ucdavis.edu
- To send a file to that computer
  - scp file.c <uc-davis-login>@pc##.cs.ucdavis.edu:~/Documents
- On Windows, use "powershell"

```
OpenSSH SSH client                                              —  □  ✕

PS C:\Users\Matt> ssh mjlyons7@pc23.cs.ucdavis.edu
The authenticity of host 'pc23.cs.ucdavis.edu (128.120.211.90)' can't be established.
ECDSA key fingerprint is SHA256:vobE1yTB21LLfPGQnXSB7I+xWsyKvty8R2wcglfzgy4.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added 'pc23.cs.ucdavis.edu,128.120.211.90' (ECDSA) to the list of known hosts.
mjlyons7@pc23.cs.ucdavis.edu's password:
Permission denied, please try again.
mjlyons7@pc23.cs.ucdavis.edu's password:

*
* Computer Science Instructional Facility
* Ubuntu 18.04.3 LTS
*


Hostname: pc23  Date: Wed Oct  2 13:39:32 PDT 2019
System Load:    0.04    IP Address:
Memory Usage:   4.9%    System Uptime:  8:39 hours
Usage On /:     7%      Swap Usage:     0.0%
Local Users:    1       Processes:      259


*
* 09/17/2018 - home directories have been migrated to new space, to get your archived home directory, please see: http:/
/ssg.cs.ucdavis.edu/news/csifnewhome
*
Last login: Wed Oct  2 13:09:40 2019 from 168.150.19.83
mjlyons7@ad3.ucdavis.edu@pc23:~$
```

Compile

- gcc -o test -ansi -pedantic -Wall test.c
- To run:
  - ./test

Unix Commands - navigate

- cd – Change directory
  - Special directories: . , .. , ~
- pwd – Print working directory
- mkdir – Make a directory
- rmdir – Remove a directory
- mv – Move a file (like cut and paste)
- cp – Copy a file (copy and paste)

Unix commands – printing files

- cat – Concatenate (shows all file lines on screen)
- head – Start (head) of file (default 10)
- tail – See end of file (last 10 lines)

Unix commands – manipulate files

- touch – create a file, or if it's already created, update it's last edited time.

- rm – remove (delete)

- ln -s – create link to file

  - Use -s argument for "symbolic" (similar to shortcut on Windows)

- diff – see the difference between two files

Unix commands

- chmod – change file permissions
- Order is user, group, other
- "rw-r--r--"
  - User has read and write, group and other have read permission.
- chmod 744 script.sh – to make it runable for user
  - Becomes "rwxr--r--", notice the 'x' that appears, means "executable"

Unix commands

- ps – list processes running
- kill <process_id> - terminate a process
- bg – move process to the background
- fg – move process to the foreground

Unix commands

- >> - to redirect output
- * - wildcard character

Unix Commands

- alias – assign a name

Unix commands

- .bashrc – runs whenever we start terminal

  - Located in your home directory.

  - Use "ls -a" to see it.

  - Can append commands to this file that we want to run as soon as shell starts.