



Programming Languages

Linux Commands #5

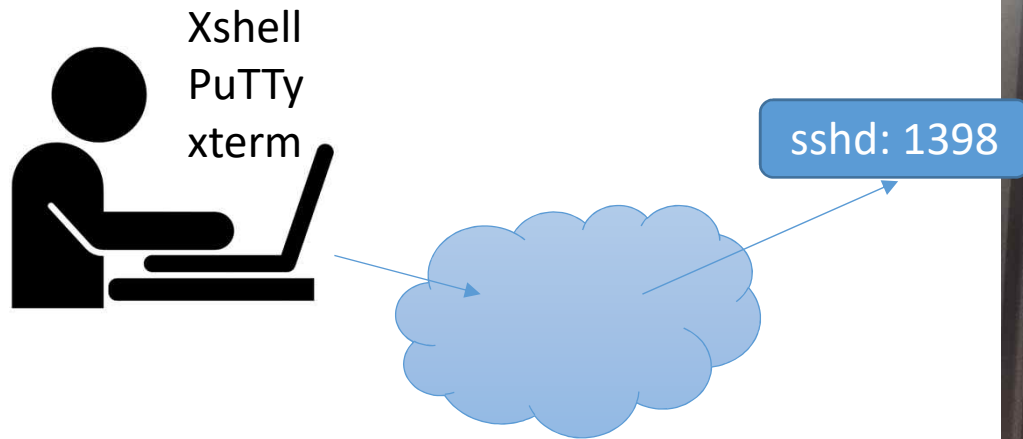


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ssh

- Used to log into a remote machine



- `$ ssh username@swin.skku.edu -p 1398`



scp

- To copy a file from remote machine to your system:
- `$ scp userid@swin.skku.edu:/home/userid/small.txt .`

- To copy file from your machine to remote:
- `$ scp . userid@swin.skku.edu:/home/userid/small.txt`



Linux directories

- `/` is the root directory
- `/bin/` and `/usr/bin/` store user commands.
- `/boot/` contains files used for system startup including the kernel.
- `/dev/` contains device files
- `/etc/` is where configuration files and directories are located.
- `/home/` is the default location for users' home directories.
- `/lib/` and `/usr/lib/` hold library files used by programs in `/bin/` and `/sbin/`.



Linux directories

- /mnt/ holds the mount points for file systems that were mounted after boot.
- /opt/ is used primarily for installation and uninstillation of third-party software. Holds optional files and programs.
- /proc/ is a virtual directory (not actually stored on the disk) which holds system information required by certain programs.
- /root/ is the home directory of the superuser "root"
- /sbin/ and /usr/sbin/ store system commands.
- /tmp/ is the system temporary directory. All users have read+write access to /tmp/.
- /usr/ contains files related to users such as application files and related library files ("usr" is an acronym that stands for UNIX system resources).
- /var/ (as in "variable") holds files and directories that are constantly changing such as printer spools and log files.



Linux Profiles

- **System-wide profiles**
 - Located at /etc/

- **User-specific profiles**
 - Located at user's home directory but they are hidden
 - For bash
 - .bashrc
 - .bash_profile
 - .bash_history



bash

- When bash starts, /etc/profile is executed
- Then, it looks for
 - .bash_profile
 - put login-related stuff
 - .bashrc
 - put other stuff



bashrc

■ Alias

- alias ll='ls -lhA'
- alias sl='ls'
- alias ps='ps aux'

■ Environment variable

- export LD_LIBRARY_PATH="/home/userid/lib":\$LD_LIBRARY_PATH
- LD_LIBRARY_PATH is the predefined environmental variable in Linux/Unix which sets the path which the linker should look in to while linking dynamic libraries/shared libraries.
- export PATH="/home/userid/bin":\$PATH:
- Unix systems organize different types of commands spread over different directories. If you want to add one, you have to add it to PATH environment variable

The logo for 'xargs' is displayed in a bold, lowercase, sans-serif font. It is positioned on the left side of a horizontal banner that features a faded background image of a modern university building with a glass facade and a clock tower in the distance.

xargs

- xargs reads items from standard input as separated by blanks and executes a command once for each argument
- `$ echo 'one two three' | xargs mkdir`
- `$ ls`
one two three



find with exec

- Find can be used in variety of conditions like you can find files by permissions, users, groups, file type, date, size and other possible criteria.

find files with word main

```
$ find . -exec grep "main" {} \;
```



More examples

- `$ find . -name tecmint.txt ./tecmint.txt`
- `$ find /home -iname tecmint.txt ./tecmint.txt ./Tecmint.txt`
- `$ find / -type d -name Tecmint /Tecmint`
- `$ find . -type f -perm 0777 -print`
- `$ find / -perm /u=r`
- `$ find / -type f -perm 0777 -print -exec chmod 644 {} \;`



More examples

- `$ find . -type f -name "tecmint.txt" -exec rm -f {} \;`
- `$ find / -mmin -60`
- `$ find / -size +50M -size -100M`
- `$ find / -size +100M -exec rm -rf {} \;`
- `$ find / -type f -name *.mp3 -size +10M -exec rm {} \;`