

# Basic Linux/Unix

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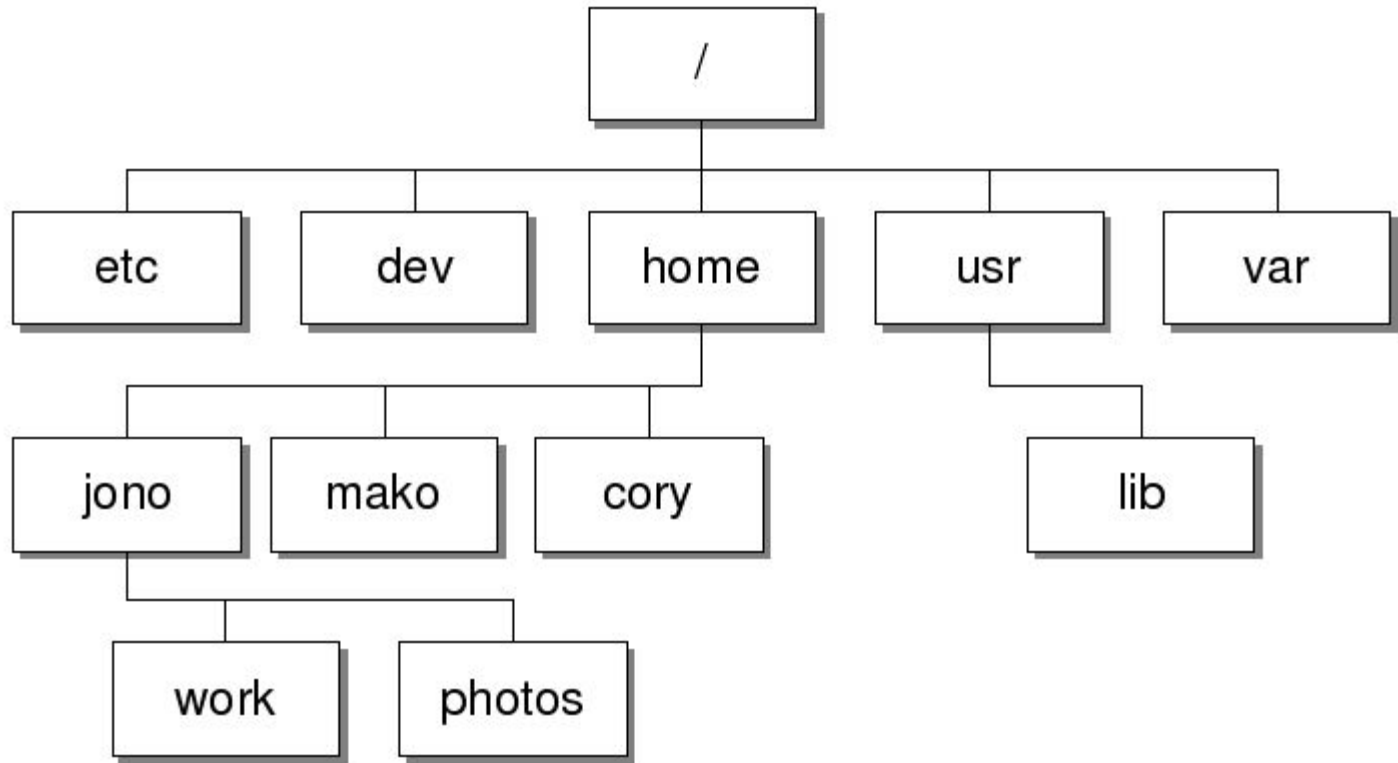
# What is Linux?

- It is just another OS, like Windows.
- Linux is open source.
- There are many distributions of linux **eg.** Ubuntu, Arch, Kali etc.
- Linux was made to be similar to Unix. Infact Unix isn't free.

# Why Linux? Why Terminal?

- Since Linux is open sourced it gets excellent support from the community.
- In fact Android phone, digital devices, cameras and even cars have Linux running under the hood.
- Linux/Unix was build terminal up.
- Scripts are very powerful tools.
- Not everything has a GUI to support its working.

Linux



# Path

- The **'/'** represents the root node. Any path, hence starts with a **'/'**.
- Path to any **file** is a traversal to that node.
- For example the path to the photos folder in the previous directory structure would be:
  - **/home/jono/photos** (unlike Windows Linux is case sensitive for file names)
- **'~'** denotes the home directory of the current user
  - **~/photos**
- **'.'** denotes current directory and **'..'** the parent directory.

# Some basic commands

- **pwd** - gives the present working
- **cd** - change directory
- **ls** <**path**> - listing of the directory
  - **ls -l** : gives a detailed listing of current directory
  - **ls -al** : also shows the hidden directories
- **man** <**command**> - shows the manual pages of the command

# Some more commands

- **cp** <Source> <Destination> - copies file from source(s) to destination.
  - **cp -R** when source(s) are directories.
- **mv** [-R] <Source> <Destination> - move files/directories from source to destination.
  - **Hack:** To rename files we use the mv command.
- **touch** <File> - can be used to create files.
  - It is actually used to change file's time stamps but creates non-existent files.

# Writing and Reading files

- **cat** <File1> <File2> ... - concatenates the files (with a newline) and prints to the standard output.
- Redirection operators :
  - '**< file.txt**' - give input to the command from the file.
  - '**> file.txt**' - directs output of a command to the file.
  - '**>> file.txt**' - append the output if file exists.
- So using **cat** command and redirection operators one can read and write to files.



# Advance commands

- `|` (pipe) operator to chain commands.
- Logical operators like `&&` and `||`.
- `grep`, `awk` etc.

Thank You