

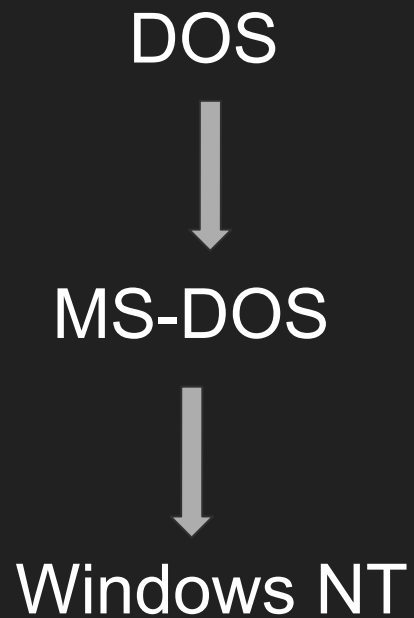
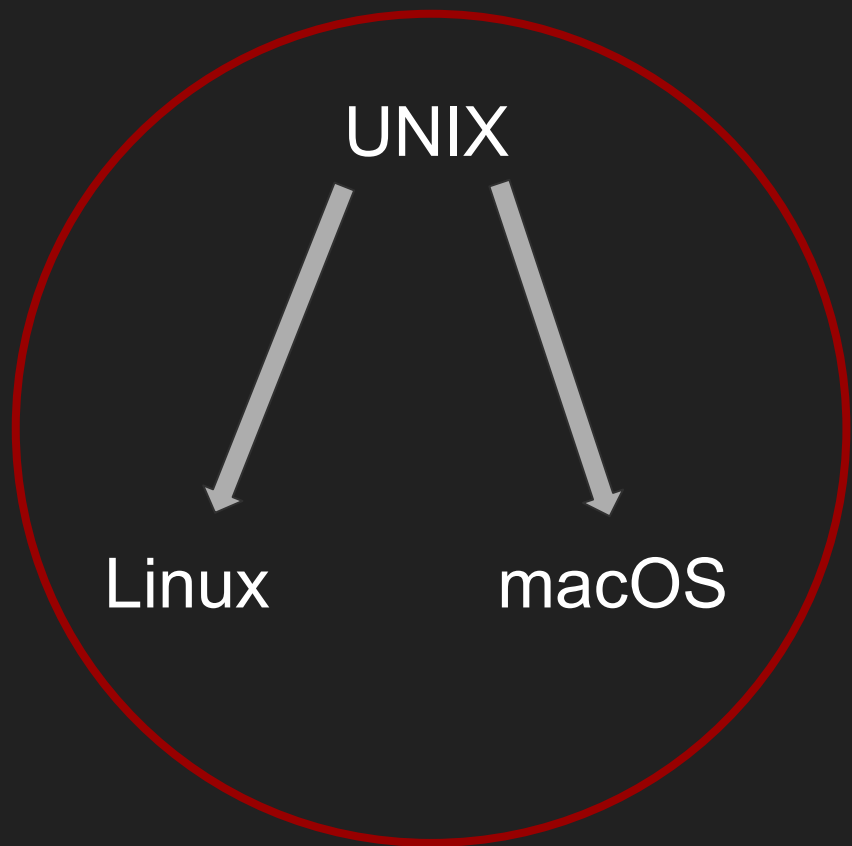


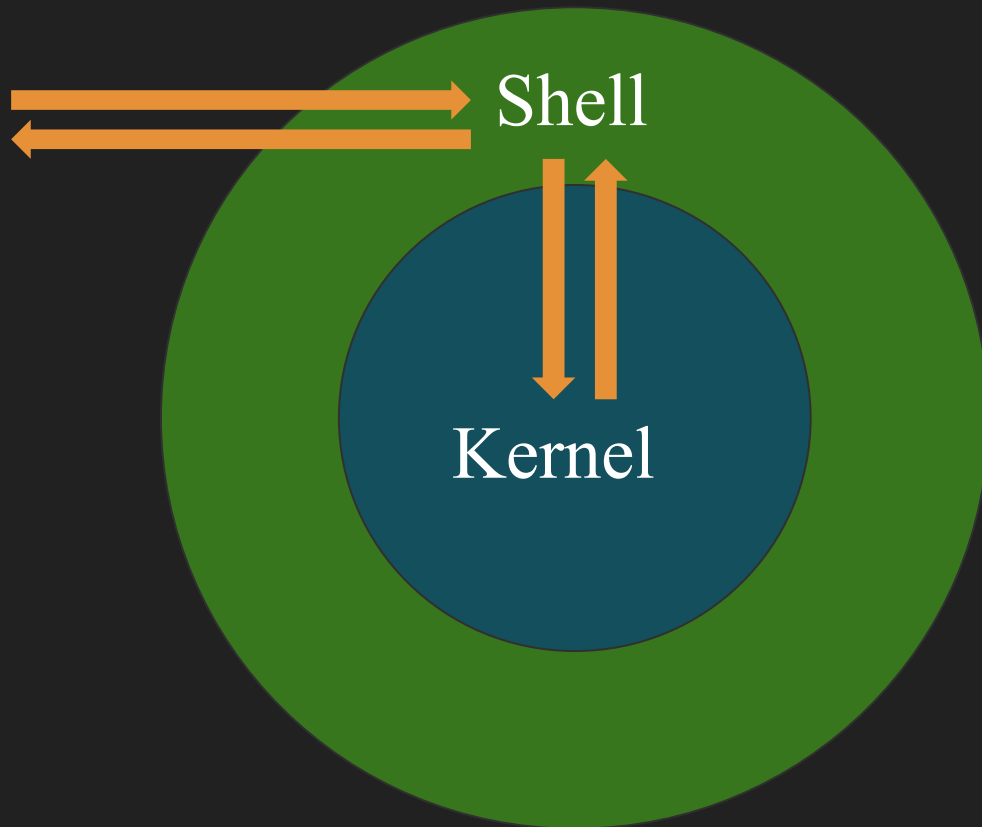
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Learning Objectives:

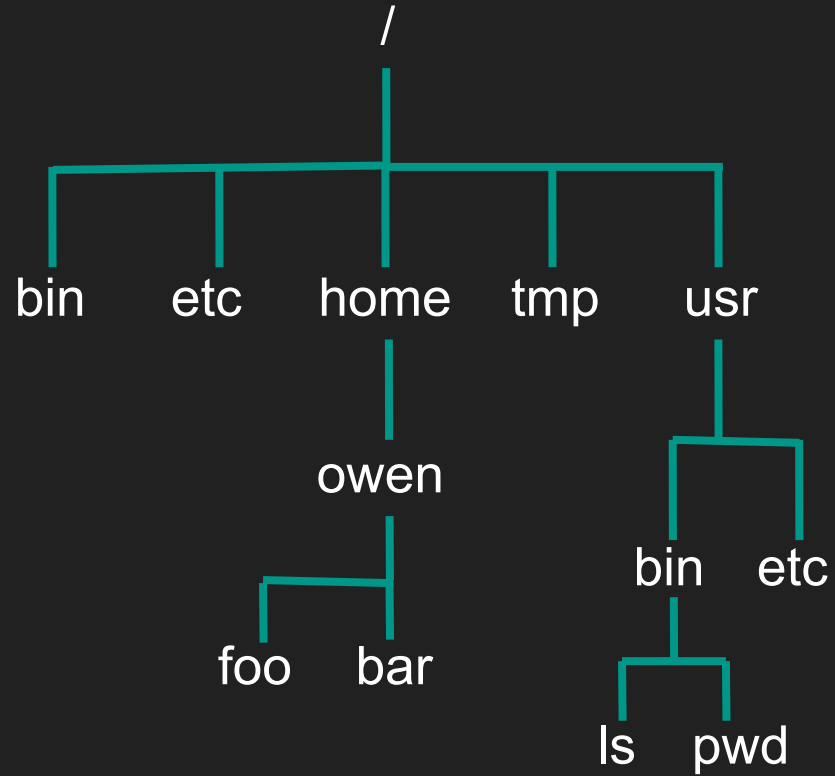
You will be able to

- Describe the role of a shell
- Navigate a UNIX file system
- Identify various bash commands





File system



Files

- Everything is a file
 - Directories are a special type of file
- Files can have any name using any characters (different in Windows)
 - All files in a directory must have unique names
 - File names are case sensitive
 - Do not require an extension
- All files are treated the same by Linux
 - It is up to you and your programs to handle them properly

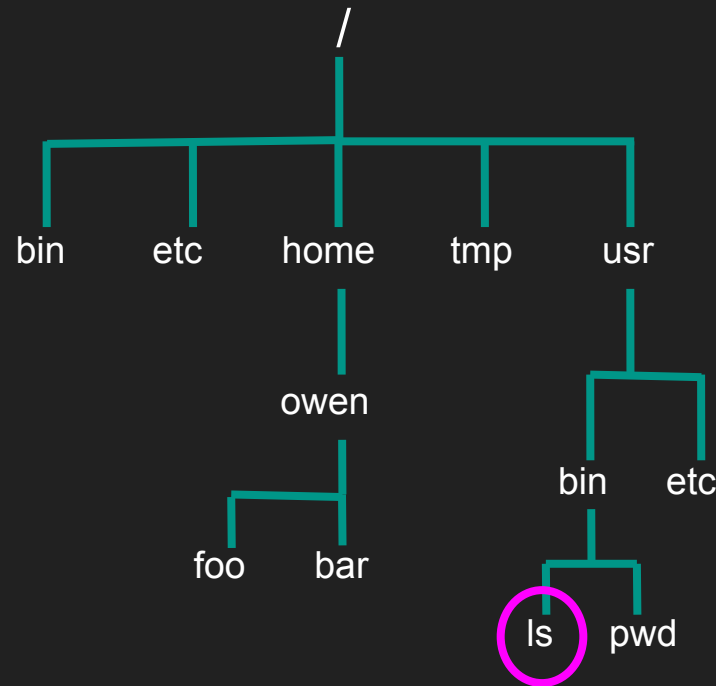
Paths

Absolute paths (A file's address):

- Start with / and list the whole tree to the file of interest
- /home/owen/foo

Relative paths (Directions to a file):

- Reference a file relative to the *current working directory*
- Special files . and .. and ~
 - . is the current directory
 - .. is the parent of the current directory
 - ~ is the home directory of a user
- ../usr/etc



Useful commands

- pwd
- ls
- cd
- mkdir
- rmdir
- rm
- find
- cp
- head
- tail
- more/less
- chmod
- grep
- cat
- awk
- mv

pwd (print working directory):

- print the name of the current working directory (cwd) to the screen

ls (list):

- List the files in the cwd

cd (change directory):

- Move to a different working directory

rm (remove):

- Remove a file (or directory)

mkdir (make directory):

- Create a new directory

cat (concatenate):

- Print the contents of a file to the screen

touch: Create a new file (or update most recent active time)

head/tail: Print the first/last 10 (by default) lines of a file to the screen

grep (global regular expression print): Search for a pattern within files

find: Searches for files or directories

man (manual): Display info on how to use a command

How to invoke a command:

- `find [options] [path] [expression]`
- `find /usr/bin/ -name "ls"`