**CSCI 2461-70 Griffin, A.N. 2017-9-11**

**Chapter 4 book notes**

Disk and file systems

Layer 1 – Partitions = subdivisions of the whole disk. Place on partition table.

Layer 2 – Filesystem = data of files

MBR Master Boot Records

Parted = a text base tool that supports both MBR and GPT

Gparted = a graphical version of parted

Pdisk = the traditional text based Linux disk partioning table. Does not support GPT.

Gdisk = a version of fdisk that supports GPT but not MBR

Primary partition = is a normal subdivision of the disk

Partition

Dmesg

Udevadm = kernel event changed

Blockdev

Ssd = solid state disk

VFS = virtual file system

File system types: ext4, ext3, ISO 9660, FAT, HFS, ext2

Mkfs utility – can create many types of file system. Super block back numbers

Mounting – process of attaching files.

mount point – place in current sys dir hierarchy where the file system will be attached

Mount

-t = type option

Unmount = detach file system

UUID = universal unique identifier

Blkid

Sync

* -r option = mounts file system in read only
* -n option = ensures that mount does not try to update the system runtime mount database.

Exec, noexc = enables or disables set uid programs

Ro = mounts file systems in read only mode

Rw = mounts file systems in read and write mode

Df

Du –s = turns on summary mode

Fsck = checks file system

* -p = fixes problems automatically
* -n = check file system without modification
* -b = num replace the computed superblock backups number without destroying data.

Debugs = tools allow you to look through the files on a file system in read only mode.

Swapping = disk area used to store memory pages.

Mkswap dev = puts a swap signature on the partition

Swapoff = remove a swap partition of file from the kernels active pool