Running program
- Process

linux packages Characteristics
1 each package is a single file
2 package rely on other programs to do the work of installing the software
3 packages contain dependency information
4 packages contain version information
5 packages contain architecture information
6 Binary packages are built from source packages

Software installation task
1 cmd is issued to install a program
2 Software locates dependencies of the specified program
3 user issues find approval for software installation
4 Software downloads all of the necessary package
5 Software installs all the packages

yum, dnf - rpm
apt - deb

Sudo -Super user do

/sbin/init
- Starting up all other basic programs that linux needs to run

children
-program launched by init
parent
- process that launched a program

PID
- process ID , starts with 1
PPID
- parent process ID

Identify Processes
- ps -provides information at only a a single moment in time
- top -interactive version of ps

kill or stop processes using PID

program with a memory leak consumes increasing amounts of memory

mem
-reveals total RAM Statistics
buffer/cache -total RAM being used actively

swap
- reveals how much swap space linux is using
(disk space set aside as an adjunct to memory

log files
- usually stored in /var/log
- Frequently rotated
- plain text
- Syslog / sysloggd
klog / klogd
- handles logging message from the kernel seperately from ordinary programs

System Messaging
- technique wherein a log daemon accepts messages from other processes

kernel ring buffer
-dmesg
- invaluable in diagnosing hardware and driver problems

M key shows which processes is using the most memory