Homework 2

April 2, 2020

```
[3]: pwd
     /home/jupyter-zhannaspace
[70]: cd /
            #goto root directory
[5]: pwd
[71]: ls -F1 # list all dirs and files
     bin/
     boot/
     cdrom/
     dev/
     etc/
     home/
     initrd.img@
     initrd.img.old@
     lib/
     lib64/
     lost+found/
     media/
     mkdir/
     mnt/
     opt/
     proc/
     root/
     run/
     sbin/
     snap/
     srv/
     swap.img
     sys/
     tmp/
     usr/
     var/
```

vmlinuz@
vmlinuz.old@

[34]: cd /bin

[35]: ls -F

bash*	journalctl*	readlink*
btrfs*	kbd_mode*	red*
btrfsck@	kill*	rm*
btrfs-debug-tree*	kmod*	rmdir*
btrfs-find-root*	less*	rnano@
btrfs-image*	lessecho*	run-parts*
btrfs-map-logical*	lessfile@	rzsh@
btrfs-select-super*	lesskey*	sed*
btrfstune*	lesspipe*	setfacl*
btrfs-zero-log*	ln*	setfont*
bunzip2*	loadkeys*	setupcon*
busybox*	login*	sh@
bzcat*	loginctl*	sh.distrib@
bzcmp@	lowntfs-3g*	sleep*
bzdiff*	ls*	ss*
bzegrep@	lsblk*	static-sh@
bzexe*	lsmod@	stty*
bzfgrep@	mkdir*	su*
bzgrep*	mkfs.btrfs*	sync*
bzip2*	mknod*	systemctl*
bzip2recover*	mktemp*	systemd@
bzless@	more*	systemd-ask-password*
bzmore*	mount*	systemd-escape*
cat*	mountpoint*	systemd-hwdb*
chacl*	mt@	systemd-inhibit*
chgrp*	mt-gnu*	systemd-machine-id-setup*
chmod*	mv*	systemd-notify*
chown*	nano*	systemd-sysusers*
chvt*	nc@	systemd-tmpfiles*
cp*	nc.openbsd*	systemd-tty-ask-password-agent*
cpio*	netcat@	tar*
dash*	netstat*	tempfile*
date*	networkctl*	touch*
dd*	nisdomainname@	true*
df*	ntfs-3g*	udevadm*
dir*	ntfs-3g.probe*	ulockmgr_server*
dmesg*	ntfscat*	umount*
${\tt dnsdomainname0}$	ntfscluster*	uname*
domainname@	ntfscmp*	uncompress*
dumpkeys*	ntfsfallocate*	unicode_start*
echo*	ntfsfix*	vdir*

```
efibootdump*
                           ntfsls*
                                            which*
     efibootmgr*
                           ntfsmove*
                                            whiptail*
                           ntfsrecover*
                                            ypdomainname@
     egrep*
     false*
                           ntfssecaudit*
                                            zcat*
     fgconsole*
                           ntfstruncate*
                                            zcmp*
     fgrep*
                           ntfsusermap*
                                            zdiff*
                           ntfswipe*
                                            zegrep*
     findmnt*
     fsck.btrfs*
                           open@
                                            zfgrep*
     fuser*
                           openvt*
                                            zforce*
     fusermount*
                           pidof@
                                            zgrep*
     getfacl*
                           ping*
                                            zless*
     grep*
                           ping4@
                                            zmore*
     gunzip*
                           ping6@
                                            znew*
     gzexe*
                           plymouth*
                                            zsh*
                                            zsh5*
     gzip*
                           ps*
     hostname*
                           pwd*
     ip*
                           rbash@
[37]: cd /boot
[38]: ls -F
     config-4.15.0-88-generic
                                     initrd.img-4.15.0-91-generic
     config-4.15.0-91-generic
                                     System.map-4.15.0-88-generic
     efi/
                                     System.map-4.15.0-91-generic
     grub/
                                     vmlinuz-4.15.0-88-generic
     initrd.img-4.15.0-88-generic
                                    vmlinuz-4.15.0-91-generic
[14]: file config-4.15.0-88-generic
     config-4.15.0-88-generic: Linux make config build file, ASCII text
[39]: cd /cdrom
[40]: ls -F
[41]: pwd
     /cdrom
[42]: ls -a
[43]:
     cd /dev
[44]: ls -F
```

wdct1*

ed*

ntfsinfo*

autofs	kmsg	sda1	tty3	tty6	ttyS30
block/	kvm	sda2	tty30	tty60	ttyS31
bsg/	lightnvm/	sg0	tty31	tty61	ttyS4
btrfs-control	log@	shm/	tty32	tty62	ttyS5
bus/	loop0	snapshot	tty33	tty63	ttyS6
char/	loop1	snd/	tty34	tty7	ttyS7
console	loop2	stderr@	tty35	tty8	ttyS8
core@	loop3	stdin@	tty36	tty9	ttyS9
cpu/	loop4	stdout@	tty37	ttyprintk	uhid
cpu_dma_latency	loop5	tty	tty38	ttyS0	uinput
cuse	loop6	tty0	tty39	ttyS1	urandom
disk/	loop7	tty1	tty4	ttyS10	usb/
dri/	loop-control	tty10	tty40	ttyS11	userio
ecryptfs	mapper/	tty11	tty41	ttyS12	vcs
fb0	mcelog	tty12	tty42	ttyS13	vcs1
fd@	mei0	tty13	tty43	ttyS14	vcs2
full	mem	tty14	tty44	ttyS15	vcs3
fuse	${\tt memory_bandwidth}$	tty15	tty45	ttyS16	vcs4
hidraw0	mqueue/	tty16	tty46	ttyS17	vcs5
hidraw1	net/	tty17	tty47	ttyS18	vcs6
hpet	network_latency	tty18	tty48	ttyS19	vcsa
hugepages/	network_throughput	tty19	tty49	ttyS2	vcsa1
hwrng	null	tty2	tty5	ttyS20	vcsa2
i2c-0	port	tty20	tty50	ttyS21	vcsa3
i2c-1	ppp	tty21	tty51	ttyS22	vcsa4
i2c-2	psaux	tty22	tty52	ttyS23	vcsa5
i2c-3	ptmx	tty23	tty53	ttyS24	vcsa6
i2c-4	pts/	tty24	tty54	ttyS25	vfio/
i2c-5	random	tty25	tty55	ttyS26	vga_arbiter
i2c-6	rfkill	tty26	tty56	ttyS27	vhci
i2c-7	rtc@	tty27	tty57	ttyS28	vhost-net
initctl@	rtc0	tty28	tty58	ttyS29	vhost-vsock
input/	sda	tty29	tty59	ttyS3	zero

[45]: cd /etc

[24]: pwd

/etc

[46]: ls -F

 ${\tt inputrc}$ protocolsacpi/ $\verb"adduser.conf"$ iproute2/ python/ python2.7/ alternatives/ iscsi/ python3/ apache2/ issue apm/ issue.net python3.6/ python3.8/ apparmor/ java-11-openjdk/

apparmor.d/	kernel/ rc0.d/	
apport/	kernel-img.conf	rc1.d/
apt/	landscape/	rc2.d/
at.deny	ldap/	rc3.d/
bash.bashrc	ld.so.cache	rc4.d/
bash_completion	ld.so.conf	rc5.d/
bash_completion.d/	ld.so.conf.d/	rc6.d/
bindresvport.blacklist	legal	rc.local
binfmt.d/	libaudit.conf	rcS.d/
byobu/	libnl-3/	resolv.conf@
ca-certificates/	libpaper.d/	rmt*
ca-certificates.conf	lighttpd/	rpc
calendar/	locale.alias	rsyslog.conf
cloud/	locale.gen	rsyslog.d/
console-setup/	localtime@	screenrc
cron.d/	logcheck/	securetty
cron.daily/	login.defs	security/
cron.hourly/	logrotate.conf	selinux/
cron.monthly/	logrotate.d/	sensors3.conf
crontab	lsb-release	sensors.d/
cron.weekly/	ltrace.conf	services
cryptsetup-initramfs/	lvm/	shadow
crypttab	machine-id	shadow-
dbus-1/	magic	shells
debconf.conf	magic.mime	skel/
debian_version	mailcap	sos.conf
default/	mailcap.order	ssh/
deluser.conf	manpath.config	ssl/
depmod.d/	mdadm/	subgid
dhcp/	mime.types	subgid-
dnsmasq.d/	mke2fs.conf	subuid
dnsmasq.d-available/	modprobe.d/	subuid-
dpkg/	modules	sudoers
environment	modules-load.d/	sudoers.d/
ethertypes	mtab@	supervisord.conf
fonts/	mysql/	sysctl.conf
fstab	nanorc	sysctl.d/
fuse.conf	netplan/	systemd/
gai.conf	network/	terminfo/
ghostscript/	networkd-dispatcher/	texmf/
glvnd/	NetworkManager/	thermald/
groff/	networks	timezone
group	newt/	tmpfiles.d/
group-	nsswitch.conf	ucf.conf
grub.d/	octave.conf	udev/
gshadow	opt/	ufw/
gshadow-	os-release@	updatedb.conf
gss/	overlayroot.conf	update-manager/

```
gtk-2.0/
                              pam.conf
                                                        update-motd.d/
     gtk-3.0/
                                                        update-notifier/
                              pam.d/
                              papersize
     hdparm.conf
                                                        vim/
     host.conf
                                                        vmware-tools/
                              passwd
     hostname
                              passwd-
                                                        vtrgb@
     hosts
                                                        wgetrc
                              perl/
     hosts.allow
                              pm/
                                                        X11/
     hosts.deny
                              polkit-1/
                                                        xdg/
     ImageMagick-6/
                              pollinate/
                                                        zsh/
     init/
                              popularity-contest.conf
                                                        zsh_command_not_found
     init.d/
                              profile
     initramfs-tools/
                              profile.d/
[47]: cd /home
[48]: ls -F
     azat/
                                                       jupyter-nurlaura/
                              jupyter-azat/
                                                       jupyter-nurlaura2/
     jupyter-admin/
                              jupyter-cubefiction/
     jupyter-aiana178/
                              jupyter-danenok/
                                                       jupyter-official-nanakai/
                              jupyter-darganius/
                                                       jupyter-orissim/
     jupyter-aigerimunisat/
     jupyter-aizadait/
                              jupyter-ekdana/
                                                       jupyter-tsagynysh/
     jupyter-amayakof/
                              jupyter-inkar601/
                                                       jupyter-unisat/
     jupyter-amirkhan/
                              jupyter-kkenzh/
                                                       jupyter-yeldana/
                                                       jupyter-zhandos/
     jupyter-arayka/
                              jupyter-nazymungarova/
                              jupyter-nuray.serkali/
     jupyter-aruzhan149/
                                                       jupyter-zhanelbaltabay/
     jupyter-aselleon/
                              jupyter-nurike/
                                                       jupyter-zhannaspace/
[49]: cd /lib
[50]: ls -F
     apparmor/
                      init/
                                                              netplan/
     console-setup/
                      klibc-wBFLvVtxy4xJqEadIBJMa78iJz8.so*
                                                               open-iscsi/
     cpp@
                      libhandle.so.10
                                                               recovery-mode/
     crda/
                      libhandle.so.1.0.3
                                                               systemd/
     cryptsetup/
                      lsb/
                                                              terminfo/
     ebtables/
                      modprobe.d/
                                                              udev/
                      modules/
     firmware/
                                                              ufw/
     hdparm/
                      modules-load.d/
                                                              x86_64-linux-gnu/
[52]: cd /"lost+found"
     bash: cd: /lost+found: Permission denied
[53]:
     cd /media
```

```
[56]: pwd
      /media
[57]: ls -a
[59]: cd /mnt
[61]:
      ls -a
[63]:
      cd /opt
[65]:
      ls -F
     tljh/
[66]:
      cd /proc
[68]:
     ls -F
     1/
              12495/
                       248/
                                388/
                                       52/
                                               79/
                                                           diskstats
                                                                         net@
      10/
              1250/
                       25/
                                39/
                                       526/
                                               791/
                                                           dma
                                                                         pagetypeinfo
     1009/
              12514/
                       252/
                                       536/
                                               8/
                                                           driver/
                                                                         partitions
                                4/
     1021/
              12567/
                       253/
                                40/
                                       54/
                                               80/
                                                           execdomains
                                                                         sched_debug
     1051/
              127/
                       254/
                                42/
                                       549/
                                               814/
                                                                         schedstat
      1053/
              12760/
                       255/
                                43/
                                       55/
                                               83/
                                                           filesystems
                                                                         scsi/
     1070/
                                               8383/
              12784/
                       257/
                                438/
                                       56/
                                                           fs/
                                                                         self@
                                44/
                                               84/
     1075/
              128/
                       259/
                                       57/
                                                           interrupts
                                                                          slabinfo
      1087/
              12811/
                       26/
                                45/
                                       58/
                                               85/
                                                           iomem
                                                                          softirqs
     1088/
              13/
                       265/
                                457/
                                       6/
                                               8658/
                                                           ioports
                                                                          stat
              132/
                       268/
                                       61/
                                               8741/
     1093/
                                46/
                                                           irq/
                                                                          swaps
      11/
              1320/
                       27/
                                461/
                                       62/
                                               8836/
                                                           kallsyms
                                                                          sys/
      11416/
              14/
                       271/
                                48/
                                       63/
                                               889/
                                                           kcore
                                                                          sysrq-trigger
     1149/
              141/
                       28/
                                480/
                                       6315/
                                               9/
                                                           keys
                                                                          sysvipc/
      1157/
              15/
                       30/
                                482/
                                       64/
                                               909/
                                                           key-users
                                                                         thread-self@
      1164/
              1526/
                       31/
                                483/
                                       65/
                                               9418/
                                                                         timer list
                                                           kmsg
      11695/
              158/
                       32/
                                484/
                                       66/
                                               996/
                                                           kpagecgroup
                                                                         tty/
     11739/
              16/
                       32223/
                                485/
                                       67/
                                               acpi/
                                                                          uptime
                                                           kpagecount
      1179/
              18/
                       32229/
                                487/
                                       68/
                                               asound/
                                                           kpageflags
                                                                          version
      12/
              19/
                       33/
                                488/
                                       69/
                                               buddyinfo
                                                           loadavg
                                                                         version_signature
     12369/
              2/
                       337/
                                49/
                                       7/
                                               bus/
                                                           locks
                                                                         vmallocinfo
                       34/
      12381/
              20/
                                496/
                                       7258/
                                               cgroups
                                                           mdstat
                                                                         vmstat
                                               cmdline
      12452/
              21/
                       36/
                                4977/
                                       76/
                                                           meminfo
                                                                         zoneinfo
```

consoles

misc

12455/

2163/

37/

499/

77/

cpuinfo 12458/ 22/ 38/ 50/ 778/ modules 12474/ 500/ crypto 24/ 385/ 78/ ${\tt mounts@}$ 1249/ devices 247/ 386/ 51/ 782/ ${\tt mtrr}$

[69]: cd /root

bash: cd: /root: Permission denied

[]: