EPAM University Programs

DevOps external course

Module 4 Linux & Bash Essentials

TASK 4.5

1. To discover files with active sticky bits, use the following version of the find command:

sudo find / -perm /6000 -type f -exec ls -ld {} \;>setuid.txt

Put into your report a fragment of setuid.txt file. Explain meaning of parameters of the above find command (hint: use find’s man page).

-rwsr-xr-x 1 root root 14328 Mar 27 2019 /usr/lib/policykit-1/polkit-agent-helper-1

-rwsr-xr-- 1 root messagebus 42992 Jun 10 2019 /usr/lib/dbus-1.0/dbus-daemon-launch-helper

-rwxr-sr-x 1 root utmp 10232 Mar 11 2016 /usr/lib/x86\_64-linux-gnu/utempter/utempter

-rwsr-xr-x 1 root root 100760 Nov 23 2018 /usr/lib/x86\_64-linux-gnu/lxc/lxc-user-nic

-rwsr-sr-x 1 root root 10232 Oct 21 14:26 /usr/lib/xorg/Xorg.wrap

-rwsr-sr-x 1 root root 109432 Oct 30 12:17 /usr/lib/snapd/snap-confine

-rwsr-xr-x 1 root root 436552 Mar 4 2019 /usr/lib/openssh/ssh-keysign

-perm/6000 - search files by access mode SUID and SGID(-rw)

-type f - search only files

-exec ls -ld {} \; - get detailed information about each file

2. Discovering soft and hard links.

Comment on results of these commands (place the output into your report):   
cd

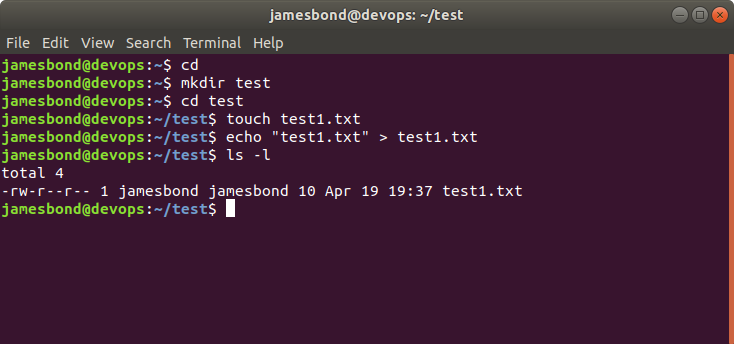
mkdir test

cd test

touch test1.txt

echo “test1.txt” > test1.txt

ls -l .



(a hard link)

ln test1.txt test2.txt

ls -l .

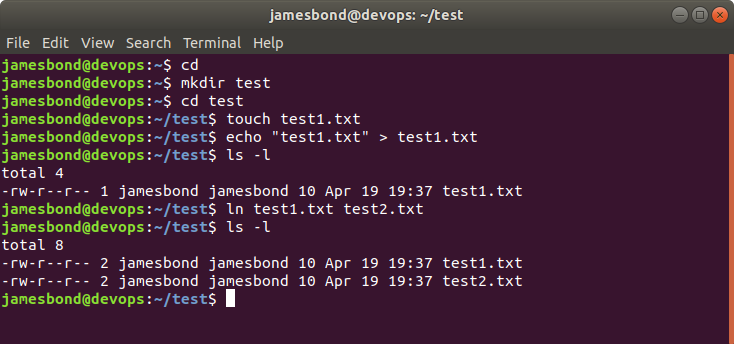
(pay attention to the number of links to test1.txt and test2.txt)

echo “test2.txt” > test2.txt

cat test1.txt test2.txt

rm test1.txt

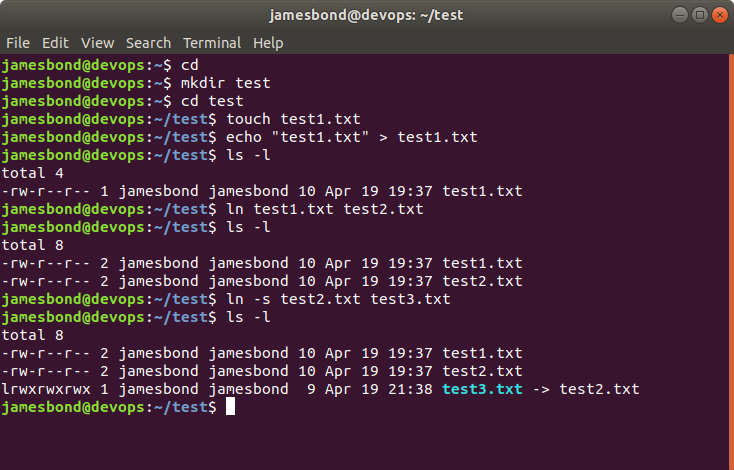
ls -l .



(now a soft link)

ln -s test2.txt test3.txt

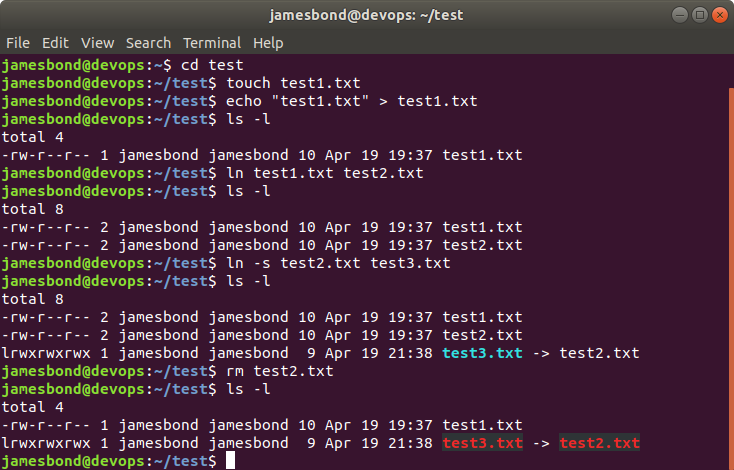
ls -l .



(pay attention to the number of links to the created files)

rm test2.txt;

ls -l .



3. I/O redirect.

Execute these commands; comment on the output.

mount

blkid

mount | grep sda

dmesg | grep sda

sudo grep -R -e “root” /etc > root\_entries.txt

(place only a reasonable fragment of root\_entries.txt into your report)

mount - without parameters, a list of mounted file systems is displayed

blkid - cl utility to print block device attributes

dmesg - print the message buffer of the kernel

List all users with root:

/etc/group-:root:x:0:

/etc/passwd:root:x:0:0:root:/root:/bin/bash