

Lab 8

Q1

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1: ig@ig-VirtualBox: ~/lab8
ig@ig-VirtualBox:~$ mkdir lab8
ig@ig-VirtualBox:~$ cd lab8
ig@ig-VirtualBox:~/lab8$ echo "All files in my home directory" > file_report.txt
ig@ig-VirtualBox:~/lab8$ ls -Am ~ >> file_report.txt
ig@ig-VirtualBox:~/lab8$ cat file_report.txt
All files in my home directory
.ansi_codes.sh, .bash_aliases, .bash_history, .bash_logout, .bashrc, .bastetrc,
.cache, cars-no-header.csv, challenge-Lab6, cis106, .config, Desktop, Documents,
.dotnet, Downloads, error_librewolfinstaller.log, .fonts, .gitconfig, .gnupg,
lab4files, lab6, lab8, .lessht, libre.sh, .local, music, Music, Pictures, .pki,
.profile, Public, scripts, snap, Snap, .ssh, .sudo_as_admin_successful,
Templates, .textFiles.sh, tfi.sh, .vboxclient-clipboard-tty2-control.pid,
.vboxclient-clipboard-tty2-service.pid,
.vboxclient-draganddrop-tty2-control.pid,
.vboxclient-draganddrop-tty2-service.pid,
.vboxclient-hostversion-tty2-control.pid, .vboxclient-seamless-tty2-control.pid,
.vboxclient-seamless-tty2-service.pid,
.vboxclient-vmvga-session-tty2-control.pid,
.vboxclient-vmvga-session-tty2-service.pid, Videos, .viminfo, .vscode, website,
website-lab5, .wget-hsts, wildcardpractice
ig@ig-VirtualBox:~/lab8$
```

Q2

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1: ig@ig-VirtualBox: ~/lab8
ig@ig-VirtualBox:~/lab8$ echo "Total number of files in my home directory" >> file_report.txt
ig@ig-VirtualBox:~/lab8$ ls -lA ~ | grep "^-" | wc -l
26
ig@ig-VirtualBox:~/lab8$ ls -lA ~ | grep "^-" | wc -l >> file_report.txt
ig@ig-VirtualBox:~/lab8$ echo "Total number of directories in my home directory" >> file_report.txt
ig@ig-VirtualBox:~/lab8$ ls -lA ~ | grep "^-" | wc -l >> file_report.txt
ig@ig-VirtualBox:~/lab8$ tail file_report.txt
.vboxclient-draganddrop-tty2-service.pid,
.vboxclient-hostversion-tty2-control.pid, .vboxclient-seamless-tty2-control.pid,
.vboxclient-seamless-tty2-service.pid,
.vboxclient-vmvga-session-tty2-control.pid,
.vboxclient-vmvga-session-tty2-service.pid, Videos, .viminfo, .vscode, website,
website-lab5, .wget-hsts, wildcardpractice
Total number of files in my home directory
26
Total number of directories in my home directory
26
ig@ig-VirtualBox:~/lab8$
```

Q3

```

1:ig@ig-VirtualBox: ~/lab8
list /usr/sbin/nologin
irc /usr/sbin/nologin
_apt /usr/sbin/nologin
nobody /usr/sbin/nologin
systemd-network /usr/sbin/nologin
systemd-timesync /usr/sbin/nologin
dhcpcd /bin/false
messagebus /usr/sbin/nologin
syslog /usr/sbin/nologin
systemd-resolve /usr/sbin/nologin
uidd /usr/sbin/nologin
usbmux /usr/sbin/nologin
tss /bin/false
systemd-oom /usr/sbin/nologin
kernoops /usr/sbin/nologin
whoopsie /bin/false
dnsmasq /usr/sbin/nologin
avahi /usr/sbin/nologin
tcpdump /usr/sbin/nologin
sssd /usr/sbin/nologin
speech-dispatcher /bin/false
cups-pk-helper /usr/sbin/nologin
fwupd-refresh /usr/sbin/nologin
saned /usr/sbin/nologin
geoclue /usr/sbin/nologin
cups-browsed /usr/sbin/nologin
hplip /bin/false
gnome-remote-desktop /usr/sbin/nologin
polkitd /usr/sbin/nologin
rtkit /usr/sbin/nologin
colord /usr/sbin/nologin
gnome-initial-setup /bin/false
gdm /bin/false
nm-openvpn /usr/sbin/nologin
ig /bin/bash
_flatpak /usr/sbin/nologin
vboxadd /bin/false
ig@ig-VirtualBox:~/lab8$ awk -F":" '{print $1,$NF}' /etc/passwd

```

```

1:ig@ig-VirtualBox: ~/lab8
list /usr/sbin/nologin /var/lib
irc /usr/sbin/nologin /run/ircd
_apt /usr/sbin/nologin /nonexistent
nobody /usr/sbin/nologin /nonexistent
systemd-network /usr/sbin/nologin /
systemd-timesync /usr/sbin/nologin /
dhcpcd /bin/false /usr/lib/dhcpcd
messagebus /usr/sbin/nologin /nonexistent
syslog /usr/sbin/nologin /nonexistent
systemd-resolve /usr/sbin/nologin /
uidd /usr/sbin/nologin /run/uidd
usbmux /usr/sbin/nologin /var/lib/usbmux
tss /bin/false /var/lib/tpm
systemd-oom /usr/sbin/nologin /
kernoops /usr/sbin/nologin /
whoopsie /bin/false /nonexistent
dnsmasq /usr/sbin/nologin /var/lib/misc
avahi /usr/sbin/nologin /run/avahi-daemon
tcpdump /usr/sbin/nologin /nonexistent
sssd /usr/sbin/nologin /var/lib/sss
speech-dispatcher /bin/false /run/speech-dispatcher
cups-pk-helper /usr/sbin/nologin /nonexistent
fwupd-refresh /usr/sbin/nologin /var/lib/fwupd
saned /usr/sbin/nologin /var/lib/saned
geoclue /usr/sbin/nologin /var/lib/geoclue
cups-browsed /usr/sbin/nologin /nonexistent
hplip /bin/false /run/hplip
gnome-remote-desktop /usr/sbin/nologin /var/lib/gnome-remote-desktop
polkitd /usr/sbin/nologin /
rtkit /usr/sbin/nologin /proc
colord /usr/sbin/nologin /var/lib/colord
gnome-initial-setup /bin/false /run/gnome-initial-setup/
gdm /bin/false /var/lib/gdm3
nm-openvpn /usr/sbin/nologin /var/lib/openvpn/chroot
ig /bin/bash /home/ig
_flatpak /usr/sbin/nologin /nonexistent
vboxadd /bin/false /var/run/vboxadd
ig@ig-VirtualBox:~/lab8$ awk -F":" '{print $1,$NF,$6}' /etc/passwd

```

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1:ig@ig-VirtualBox: ~/lab8 ~
The user list logs in with: /usr/sbin/nologin and its home dir is: ==/var/list
The user irc logs in with: /usr/sbin/nologin and its home dir is: ==/run/ircd
The user _apt logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user nobody logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user systemd-network logs in with: /usr/sbin/nologin and its home dir is: ==/
The user systemd-timesync logs in with: /usr/sbin/nologin and its home dir is: ==/
The user dhcpcd logs in with: /bin/false and its home dir is: ==/usr/lib/dhcpcd
The user messagebus logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user syslog logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user systemd-resolve logs in with: /usr/sbin/nologin and its home dir is: ==/
The user uidd logs in with: /usr/sbin/nologin and its home dir is: ==/run/uidd
The user usbmux logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/usbmux
The user tss logs in with: /bin/false and its home dir is: ==/var/lib/tpm
The user systemd-oom logs in with: /usr/sbin/nologin and its home dir is: ==/
The user kernoops logs in with: /usr/sbin/nologin and its home dir is: ==/
The user whoopsie logs in with: /bin/false and its home dir is: ==/nonexistent
The user dnsmasq logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/misc
The user avahi logs in with: /usr/sbin/nologin and its home dir is: ==/run/avahi-daemon
The user tcpdump logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user sssd logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/sss
The user speech-dispatcher logs in with: /bin/false and its home dir is: ==/run/speech-dispatcher
The user cups-pk-helper logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user fwupd-refresh logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/fwupd
The user saned logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/saned
The user geoclue logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/geoclue
The user cups-browsed logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user hplip logs in with: /bin/false and its home dir is: ==/run/hplip
The user gnome-remote-desktop logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/gnome-remote-desktop
The user polkitd logs in with: /usr/sbin/nologin and its home dir is: ==/
The user rtkit logs in with: /usr/sbin/nologin and its home dir is: ==/proc
The user colord logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/colord
The user gnome-initial-setup logs in with: /bin/false and its home dir is: ==/run/gnome-initial-setup/
The user gdm logs in with: /bin/false and its home dir is: ==/var/lib/gdm3
The user nm-openvpn logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/openvpn/chroot
The user ig logs in with: /bin/bash and its home dir is: ==/home/ig
The user _flatpak logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user vboxadd logs in with: /bin/false and its home dir is: ==/var/run/vboxadd
ig@ig-VirtualBox:~/lab8$ awk -F":" '{print "The user \"$1,\"logs in with: \"$NF,\"and its home dir is: ==\"$6}\" /etc/passwd'
The user syslog logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user systemd-resolve logs in with: /usr/sbin/nologin and its home dir is: ==/
The user uidd logs in with: /usr/sbin/nologin and its home dir is: ==/run/uidd
The user usbmux logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/usbmux
The user tss logs in with: /bin/false and its home dir is: ==/var/lib/tpm
The user systemd-oom logs in with: /usr/sbin/nologin and its home dir is: ==/
The user kernoops logs in with: /usr/sbin/nologin and its home dir is: ==/
The user whoopsie logs in with: /bin/false and its home dir is: ==/nonexistent
The user dnsmasq logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/misc
The user avahi logs in with: /usr/sbin/nologin and its home dir is: ==/run/avahi-daemon
The user tcpdump logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user sssd logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/sss
The user speech-dispatcher logs in with: /bin/false and its home dir is: ==/run/speech-dispatcher
The user cups-pk-helper logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user fwupd-refresh logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/fwupd
The user saned logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/saned
The user geoclue logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/geoclue
The user cups-browsed logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user hplip logs in with: /bin/false and its home dir is: ==/run/hplip
The user gnome-remote-desktop logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/gnome-remote-desktop
The user polkitd logs in with: /usr/sbin/nologin and its home dir is: ==/
The user rtkit logs in with: /usr/sbin/nologin and its home dir is: ==/proc
The user colord logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/colord
The user gnome-initial-setup logs in with: /bin/false and its home dir is: ==/run/gnome-initial-setup/
The user gdm logs in with: /bin/false and its home dir is: ==/var/lib/gdm3
The user nm-openvpn logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/openvpn/chroot
The user ig logs in with: /bin/bash and its home dir is: ==/home/ig
The user _flatpak logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent
The user vboxadd logs in with: /bin/false and its home dir is: ==/var/run/vboxadd
ig@ig-VirtualBox:~/lab8$ awk -F":" '{print "The user \"$1,\"logs in with: \"$NF,\"and its home dir is: ==\"$6}\" /etc/passwd > report_users.txt
ig@ig-VirtualBox:~/lab8$ awk -F":" '{print "The user \"$1,\"logs in with: \"$NF,\"and its home dir is: ==\"$6}\" /etc/passwd | grep "/bin/bash"
The user root logs in with: /bin/bash and its home dir is: ==/root
The user ig logs in with: /bin/bash and its home dir is: ==/home/ig
ig@ig-VirtualBox:~/lab8$ awk -F":" '{print $1 = \"$NF\"}' /etc/passwd | grep "/bin/bash"
root = /bin/bash
ig = /bin/bash
ig@ig-VirtualBox:~/lab8$ awk -F":" '{print $1 = \"$NF\"}' /etc/passwd | grep "/bin/bash" >> report_users.txt
ig@ig-VirtualBox:~/lab8$

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ig@ig-VirtualBox:~/lab8$  
The user _apt logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent  
The user nobody logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent  
The user systemd-network logs in with: /usr/sbin/nologin and its home dir is: ==/  
The user systemd-timesync logs in with: /usr/sbin/nologin and its home dir is: ==/  
The user dhcpcd logs in with: /bin/false and its home dir is: ==/usr/lib/dhcpcd  
The user messagebus logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent  
The user syslog logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent  
The user systemd-resolve logs in with: /usr/sbin/nologin and its home dir is: ==/  
The user uuid logs in with: /usr/sbin/nologin and its home dir is: ==/run/uuid  
The user usbmux logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/usbmux  
The user tss logs in with: /bin/false and its home dir is: ==/var/lib/tpm  
The user systemd-oom logs in with: /usr/sbin/nologin and its home dir is: ==/  
The user kernoops logs in with: /usr/sbin/nologin and its home dir is: ==/  
The user whoopsie logs in with: /bin/false and its home dir is: ==/nonexistent  
The user dnsmasq logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/misc  
The user avahi logs in with: /usr/sbin/nologin and its home dir is: ==/run/avahi-daemon  
The user tcpdump logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent  
The user sssd logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/sss  
The user speech-dispatcher logs in with: /bin/false and its home dir is: ==/run/speech-dispatcher  
The user cups-pk-helper logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent  
The user fwupd-refresh logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/fwupd  
The user saned logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/saned  
The user geoclue logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/geoclue  
The user cups-browsed logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent  
The user hplip logs in with: /bin/false and its home dir is: ==/run/hplip  
The user gnome-remote-desktop logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/gnome-remote-desktop  
The user polkitd logs in with: /usr/sbin/nologin and its home dir is: ==/  
The user rtkit logs in with: /usr/sbin/nologin and its home dir is: ==/proc  
The user colord logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/colord  
The user gnome-initial-setup logs in with: /bin/false and its home dir is: ==/run/gnome-initial-setup/  
The user gdm logs in with: /bin/false and its home dir is: ==/var/lib/gdm3  
The user nm-openvpn logs in with: /usr/sbin/nologin and its home dir is: ==/var/lib/openvpn/chroot  
The user ig logs in with: /bin/bash and its home dir is: ==/home/ig  
The user _flatpak logs in with: /usr/sbin/nologin and its home dir is: ==/nonexistent  
The user vboxadd logs in with: /bin/false and its home dir is: ==/var/run/vboxadd  
root = /bin/bash  
ig = /bin/bash  
ig@ig-VirtualBox:~/lab8$
```

Q4

```
1: ig@ig-VirtualBox: ~/lab8 ▾
```

```
ig@ig-VirtualBox:~/lab8$ grep -i "honda" ~/Documents/Csv/cars.csv > honda1.csv
ig@ig-VirtualBox:~/lab8$ head -1 ~/Documents/Csv/cars.csv > honda1.csv
ig@ig-VirtualBox:~/lab8$ cat honda1.csv
Car;MPG;Cylinders;Displacement;Horsepower;Weight;Acceleration;Model;Origin
ig@ig-VirtualBox:~/lab8$ grep -i "honda" ~/Documents/Csv/cars.csv >> honda1.csv
ig@ig-VirtualBox:~/lab8$ sed 's/;/,/g' honda1.csv > honda2.csv
ig@ig-VirtualBox:~/lab8$
```

```
1: ig@ig-VirtualBox: ~/lab8 ▾
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```
Honda_Civic (auto),4,67.00
ig@ig-VirtualBox:~/lab8$ awk -F"," 'NR > 1 {print $1,"",$3,"",$5}' honda2.csv | sed 's/ ,
/,/g' | sed 's/Honda /Honda_/g' >> honda3.csv
ig@ig-VirtualBox:~/lab8$ cat honda3.csv
model,cylinder,hp
Honda_Civic,4,97.00
Honda_Civic CVCC,4,53.00
Honda_Civic,4,53.00
Honda_Accord CVCC,4,68.00
Honda_Civic CVCC,4,60.00
Honda_Accord LX,4,68.00
Honda_Civic 1500 gl,4,67.00
Honda_Accord,4,72.00
Honda_Civic 1300,4,60.00
Honda_Prelude,4,75.00
Honda_Accord,4,75.00
Honda_Civic,4,67.00
Honda_Civic (auto),4,67.00
ig@ig-VirtualBox:~/lab8$ batcat honda3.csv
```

File: honda3.csv

1	model,cylinder,hp
2	Honda_Civic,4,97.00
3	Honda_Civic CVCC,4,53.00
4	Honda_Civic,4,53.00
5	Honda_Accord CVCC,4,68.00
6	Honda_Civic CVCC,4,60.00
7	Honda_Accord LX,4,68.00
8	Honda_Civic 1500 gl,4,67.00
9	Honda_Accord,4,72.00
10	Honda_Civic 1300,4,60.00
11	Honda_Prelude,4,75.00
12	Honda_Accord,4,75.00
13	Honda_Civic,4,67.00
14	Honda_Civic (auto),4,67.00

```
ig@ig-VirtualBox:~/lab8$
```