FIND AND LOCATE

1. Find Files Using Name in Current Directory

      # find . -name 'dir*'

```
[root@localhost ~]# find . -name 'dir*'
./dir1
./dir2
./dir3
./dir4
./dir5
./dir6
./dir7
./dir8
./dir9
./dir10
[root@localhost ~]# █
```

2. Find Files Under Home Directory

      # find / -name 'dir*'

```
[root@localhost ~]# find / -name 'dir*'
/proc/sys/fs/dir-notify-enable
/proc/sys/vm/dirty_background_bytes
/proc/sys/vm/dirty_background_ratio
/proc/sys/vm/dirty_bytes
/proc/sys/vm/dirty_expire_centisecs
/proc/sys/vm/dirty_ratio
/proc/sys/vm/dirty_writeback_centisecs
/proc/sys/vm/dirtytime_expire_seconds
/run/user/0/systemd/inaccessible/dir
/run/systemd/inaccessible/dir
/sys/devices/pci0000:00/0000:00:11.0/0000:02:00.0/usb2/2-1/ep_00/direc
tion
/sys/devices/pci0000:00/0000:00:11.0/0000:02:00.0/usb2/2-1/2-1:1.0/ep_
81/direction
/sys/devices/pci0000:00/0000:00:11.0/0000:02:00.0/usb2/ep_00/direction
/sys/devices/pci0000:00/0000:00:11.0/0000:02:00.0/usb2/2-2/ep_00/direc
tion
/sys/devices/pci0000:00/0000:00:11.0/0000:02:00.0/usb2/2-2/2-2:1.0/ep_
81/direction
/sys/devices/pci0000:00/0000:00:11.0/0000:02:00.0/usb2/2-0:1.0/ep_81/d
irection
/sys/devices/pci0000:00/0000:00:11.0/0000:02:03.0/usb1/ep_00/direction
/sys/devices/pci0000:00/0000:00:11.0/0000:02:03.0/usb1/1-0:1.0/ep_81/d
irection
/root/dir1
/root/dir2
/root/dir3
/root/dir4
```

3. Find Files Using Name and Ignoring Case

find / -iname 'DIR*'

```
[root@localhost ~]# find . -iname 'DIR*'
./dir1
./dir2
./dir3
./dir4
./dir5
./dir6
./dir7
./dir8
./dir9
./dir10
[root@localhost ~]#
```

4. Find Directories Using Name

find / -type d -name Data

```
[root@localhost ~]# find / -type d -name 'dir*'
/run/user/0/systemd/inaccessible/dir
/run/systemd/inaccessible/dir
/root/dir1
/root/dir2
/root/dir3
/root/dir4
/root/dir5
/root/dir6
/root/dir7
/root/dir8
/root/dir9
/root/dir10
/var/lib/selinux/targeted/active/modules/100/dirsrv
/var/lib/selinux/targeted/active/modules/100/dirsrv-admin
[root@localhost ~]#
```

5. Find PHP Files Using Name

find -type f -name 'a*'

```
/home/leni/.cache/mesa_shader_cache/76/aa787895cb458
614aef2
/arun/ak1
/arun/ak2
/arun/ak3
/arun/ak4
/arun/ak5
/arun/ak6
/arun/ak7
/arun/ak8
[root@localhost ~]# find / -type f -name 'a*'
```

6. Find all PHP Files in the Directory

find . -type f -name "*.php"

```
[root@localhost ~]# find /var/ -type f -name 'php*'
/var/ftp/leni/AppStream/Packages/php-8.0.20-3.el9.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-8.1.8-1.module_el9+158+97f99411.x
86_64.rpm
/var/ftp/leni/AppStream/Packages/php-bcmath-8.0.20-3.el9.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-bcmath-8.1.8-1.module_el9+158+97f
99411.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-cli-8.0.20-3.el9.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-cli-8.1.8-1.module_el9+158+97f994
11.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-common-8.0.20-3.el9.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-common-8.1.8-1.module_el9+158+97f
99411.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-dba-8.0.20-3.el9.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-dba-8.1.8-1.module_el9+158+97f994
11.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-dbg-8.0.20-3.el9.x86_64.rpm
/var/ftp/leni/AppStream/Packages/php-dbg-8.1.8-1.module_el9+158+97f994
```

7. Find Files With 777 Permissions

find . -type f -perm 0777 -print

```
[root@localhost ~]# find / -type f -perm 0700
find: '/proc/3489/task/3489/fdinfo/5': No such file or directory
find: '/proc/3489/fdinfo/6': No such file or directory
/usr/sbin/unix_update
/usr/lib/cups/backend/beh
/usr/lib/cups/backend/cups-brf
/usr/lib/cups/backend/implicitclass
/usr/lib/cups/backend/parallel
/usr/lib/cups/backend/serial
/usr/lib/cups/backend/gutenprint53+usb
[root@localhost ~]#
```

8. Find Files Without 777 Permissions

find / -type f ! -perm 777

```
/arun/ak7
/arun/ak8
/hii/bye1
/hii/bye2
/hii/bye3
/hii/bye4
/hii/bye5
/hii/bye6
/hii/bye7
/hii/bye8
[root@localhost ~]# find / -type f ! -perm 0755 -print
```

9. Find SGID Files with 644 Permissions

find / -perm 2644

```
[root@localhost ~]# find / -type d -perm 2755
/run/log/journal
[root@localhost ~]#
```

10. Find Sticky Bit Files with 551 Permissions

find / -perm 1551

```
[root@localhost ~]# find / -type d -perm 1777
/dev/mqueue
/dev/shm
/tmp
/tmp/.X11-unix
/tmp/.ICE-unix
/tmp/.XIM-unix
/tmp/.font-unix
/tmp/systemd-private-170f9bc96b974a6980a6702861dbdda9-ModemManager.ser
vice-e0k4Ub/tmp
/tmp/systemd-private-170f9bc96b974a6980a6702861dbdda9-dbus-broker.serv
ice-WmBDvl/tmp
/tmp/systemd-private-170f9bc96b974a6980a6702861dbdda9-chronyd.service-
6fSqSP/tmp
```

```
[root@localhost ~]# find / -perm 4755
find: '/proc/3609/task/3609/fd/5': No such file or directory
find: '/proc/3609/task/3609/fdinfo/5': No such file or directory
find: '/proc/3609/fd/6': No such file or directory
find: '/proc/3609/fdinfo/6': No such file or directory
/usr/bin/fusermount3
/usr/bin/fusermount
/usr/bin/chage
/usr/bin/gpasswd
```

11. Find SUID Files

find / -perm /u=s

find / -perm /g=s

find / -perm /u=r

12. Find Executable Files

find / -perm /a=x

13. Find Files with 777 Permissions and Chmod to 644

    # find / -type f -perm 0777 -print -exec chmod 644 {} \;

14. Find Directories with 777 Permissions and Chmod to 755

    # find / -type d -perm 777 -print -exec chmod 755 {} \;

15. Find and remove single File

    # find . -type f -name "tecmint.txt" -exec rm -f {} \;

16. Find and remove Multiple File

    # find . -type f -name "*.txt" -exec rm -f {} \;

    # find . -type f -name "*.mp3" -exec rm -f {} \;

```
[root@server ~]# touch file.nige{1..5}
[root@server ~]# find . -type f -name "*.txt" -exec rm -f {} \;
[root@server ~]# find . -type f -name "*.nige" -exec rm -f {} \;
[root@server ~]# cat file.nige
cat: file.nige: No such file or directory
```

17. Find all Empty Files

    # find /tmp -type f -empty

```
/arun/ak6
/arun/ak7
/arun/ak8
/hii/bye1
/hii/bye2
/hii/bye3
/hii/bye4
/hii/bye5
/hii/bye6
/hii/bye7
/hii/bye8
[root@localhost ~]# find / -type f -empty
```

18. Find all Empty Directories

find /tmp -type d -empty

```
/home/usersamba/.mozilla/extensions
/home/usersamba/.mozilla/plugins
/media
/mnt/hgfs
/opt
/srv
[root@localhost ~]# find / -type d -empty
```

19. File all Hidden Files

find /tmp -type f -name ".*"

```
[root@localhost ~]# find / -type f -name '.*'
/boot/.vmlinuz-5.14.0-142.el9.x86_64.hmac
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/.discinfo
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/.treeinfo
/run/lsm/ipc/.lsmd-ipc-lock
/run/user/0/.mutter-Xwaylandauth.V7UXT2
/run/initramfs/.need_shutdown
/sys/module/vmwgfx/notes/.note.Linux
/sys/module/vmwgfx/notes/.note.gnu.build-id
/sys/module/vmwgfx/sections/.altinstructions
/sys/module/vmwgfx/sections/.orc_unwind
/sys/module/vmwgfx/sections/.data.once
/sys/module/vmwgfx/sections/.note.Linux
/sys/module/vmwgfx/sections/.static_call_sites
```

20. Find Single File Based on User

find / -user root -name tecmint.txt

```
[root@localhost ~]# find / -user root -name arun
/arun
[root@localhost ~]#
```

```
[root@localhost ~]# find / -user root -name ak*
/usr/share/locale/ak
/usr/share/locale/akk
/arun/ak1
/arun/ak2
/arun/ak3
/arun/ak4
/arun/ak5
/arun/ak6
/arun/ak7
/arun/ak8
[root@localhost ~]#
```

21. Find all Files Based on User

find /home -user tecmint

```
[root@localhost ~]# find /home -user leni
/home/leni
/home/leni/.mozilla
/home/leni/.mozilla/extensions
/home/leni/.mozilla/plugins
/home/leni/.bash_logout
/home/leni/.bash_profile
/home/leni/.bashrc
/home/leni/.config
/home/leni/.config/gnome-initial-setup-done
/home/leni/.config/dconf
/home/leni/.config/dconf/user
/home/leni/.config/goa-1.0
/home/leni/.config/user-dirs.dirs
/home/leni/.config/user-dirs.locale
/home/leni/.config/ibus
/home/leni/.config/ibus/bus
```

22. Find all Files Based on Group

find /home -group developer

```
[root@localhost ~]# find /home -group leni
/home/leni
/home/leni/.mozilla
/home/leni/.mozilla/extensions
/home/leni/.mozilla/plugins
/home/leni/.bash_logout
/home/leni/.bash_profile
/home/leni/.bashrc
/home/leni/.config
/home/leni/.config/gnome-initial-setup-done
/home/leni/.config/dconf
/home/leni/.config/dconf/user
/home/leni/.config/goa-1.0
/home/leni/.config/user-dirs.dirs
/home/leni/.config/user-dirs.locale
/home/leni/.config/ibus
```

23. Find Particular Files of User

find /home -user tecmint -iname "*.txt"

```
[root@localhost ~]# find /home -user root -iname "h*"
/home
```

24. Find Last 50 Days Modified Files

find / -mtime 50

```
/home/leni/.cache/thumbnails/fail/gnome-thumbnail-factory/caca46be41eb
fa3907091352e8ee59fb.png
/home/usersamba/.mozilla
/mnt
/mnt/hgfs
[root@localhost ~]# find / -mtime 2
```

25. Find Last 50 Days Accessed Files

   # find / -atime 50

```
/home/leni/.cache/thumbnails/fail/gnome-thumbnail-factory/caca46be41e
fa3907091352e8ee59fb.png
/home/usersamba/.bash_logout
/home/usersamba/.bash_profile
/home/usersamba/.bashrc
[root@localhost ~]# find / -atime 2
```

26. Find Last 50-100 Days Modified Files

   # find / -mtime +50 –mtime -100

```
/home/leni/.cache/thumbnails/fail
/home/leni/.cache/thumbnails/fail/gnome-thumbnail-factory
/home/leni/.cache/thumbnails/fail/gnome-thumbnail-factory/caca46be41eb
fa3907091352e8ee59fb.png
/home/usersamba/.mozilla
/mnt
/mnt/hgfs
[root@localhost ~]# find / -mtime +1 -mtime -3
```

27. Find Changed Files in Last 1 Hour

   # find / -cmin -60

```
/var/log/messages
/var/log/secure
/var/log/vmware-vmsvc-root.log
/var/log/cron
/var/tmp
[root@localhost ~]# find / -cmin -60
```

28. Find Modified Files in Last 1 Hour

find / -mmin -60

```
/var/log/sssd/sssd_kcm.log
/var/log/messages
/var/log/secure
/var/log/vmware-vmsvc-root.log
/var/log/cron
/var/tmp
[root@localhost ~]# find / -mmin -60
```

29. Find Accessed Files in Last 1 Hour

find / -amin -60

```
/bin
/sbin
/lib64
/linux
/mano
[root@localhost ~]# find / -amin -60
```

Part V – Find Files and Directories Based on Size

30. Find 50MB Files

find / -size 50M

```
[root@localhost ~]# find / -size 5M
find: '/proc/4974/task/4974/fd/5': No such file or directory
find: '/proc/4974/task/4974/fdinfo/5': No such file or directory
find: '/proc/4974/fd/6': No such file or directory
find: '/proc/4974/fdinfo/6': No such file or directory
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/AppStream/Packages/cargo
-1.62.1-1.el9.x86_64.rpm
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/AppStream/Packages/cmake
-doc-3.20.2-7.el9.noarch.rpm
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/AppStream/Packages/crash
-8.0.1-2.el9.x86_64.rpm
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/AppStream/Packages/delve
-1.8.3-1.el9.x86_64.rpm
```

31. Find Size between 50MB – 100MB

find / -size +50M -size -100M

```
[root@localhost ~]# find / -size +5M -size -10M
/boot/System.map-5.14.0-142.el9.x86_64
find: '/proc/4983/task/4983/fd/5': No such file or directory
find: '/proc/4983/task/4983/fdinfo/5': No such file or directory
find: '/proc/4983/fd/6': No such file or directory
find: '/proc/4983/fdinfo/6': No such file or directory
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/AppStream/Packages/anthy
-unicode-1.0.0.20201109-9.el9.x86_64.rpm
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/AppStream/Packages/anthy
-unicode-1.0.0.20201109-9.el9.i686.rpm
/run/media/root/CentOS-Stream-9-BaseOS-x86_64/AppStream/Packages/aspne
tcore-runtime-6.0-6.0.7-2.el9.x86_64.rpm
```

32. Find and Delete 100MB Files

find / -type f -size 100M -exec rm -f {} \;

```
[root@server ~]# fallocate -l 100M work
[root@server ~]# find / -type f -size 100M -exec rm -f {} \;
find: '/proc/2800/task/2800/fdinfo/6': No such file or directory
find: '/proc/2800/fdinfo/5': No such file or directory
[root@server ~]# cat work
cat: work: No such file or directory
[root@server ~]#
```

33. Find Specific Files and Delete

find / -type f -name *.mp3 -size +10M -exec rm {} \;

```
[root@server ~]# fallocate -l +30M .mp3
[root@server ~]# cat .mp3
[root@server ~]# find / -type f -name .mp3 -size +10M -exec rm {} \;
[root@server ~]# cat .mp3
cat: .mp3: No such file or directory
[root@server ~]#
```

-type -size -user -group -perm -delete -exec -print -mtime -mmin -atime -amin -cmin