

Institute of Computer Technology
B. Tech Computer Science and Engineering
Subject: BOSS (2CSE204)
PRACTICAL-12

AIM: - To learn about accessing linux file systems.

Commands:

- **lsblk** - to see the disk partitions
- **du** - for seeing file sizes of current working directory
- **mount** - to create a mount point of partitions
- **umount** - to remove mount point from partitions
- **updatedb** – to update the database for using locate command.
- **locate** - works on pre generated database for searching files/directories.
- **find** - works runtime for searching files/directories.

Exercise:

1. On localhost as root, identify the UUID for /dev/sda1 and mount /dev/sda1 by its UUID on the /mnt/freespace directory.

SOLUTION

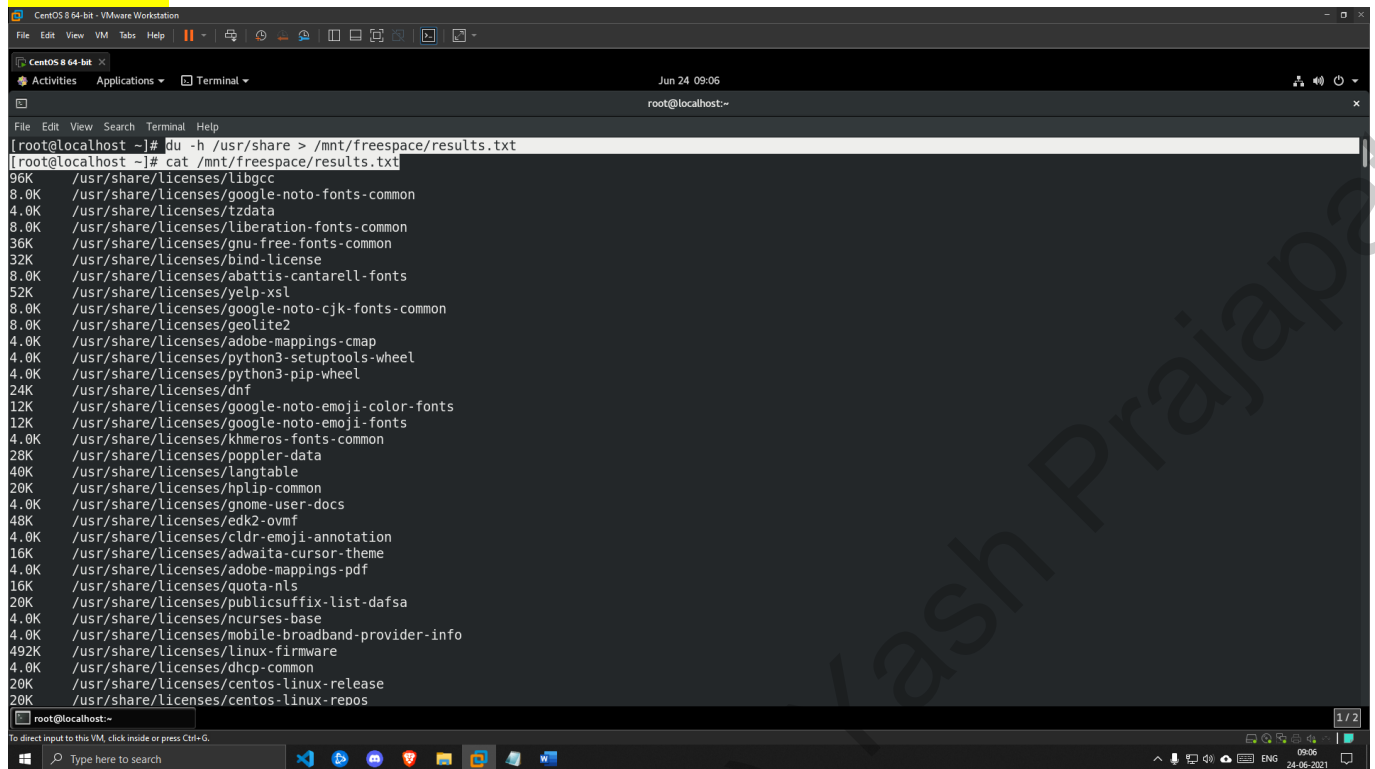
```

[root@localhost ~]# lsblk -fp
NAME        FSTYPE LABEL                UUID                                  MOUNTPOINT
/dev/sda
├─/dev/sda1 xfs                    358e7321-8504-478f-9b46-df3bc3265847 /boot
├─/dev/sda2 swap                  54dd74b6-35c2-4395-be70-b028f746e642 [SWAP]
├─/dev/sda3 xfs                    24e33597-8e5a-40f5-a1f2-1db361e59ed2 /
└─/dev/sr0  iso9660 CentOS-8-3-2011-x86_64-dvd 2020-11-18-21-39-52-00 /run/media/yash/CentOS-8-3-2011-x86_64-dvd
[root@localhost ~]# umount /boot
[root@localhost ~]# lsblk -fp
NAME        FSTYPE LABEL                UUID                                  MOUNTPOINT
/dev/sda
├─/dev/sda1 xfs                    358e7321-8504-478f-9b46-df3bc3265847 /mnt/freespace
├─/dev/sda2 swap                  54dd74b6-35c2-4395-be70-b028f746e642 [SWAP]
├─/dev/sda3 xfs                    24e33597-8e5a-40f5-a1f2-1db361e59ed2 /
└─/dev/sr0  iso9660 CentOS-8-3-2011-x86_64-dvd 2020-11-18-21-39-52-00 /run/media/yash/CentOS-8-3-2011-x86_64-dvd
[root@localhost ~]# mkdir /mnt/freespace
[root@localhost ~]# mount UUID=358e7321-8504-478f-9b46-df3bc3265847 /mnt/freespace
[root@localhost ~]# lsblk -fp
NAME        FSTYPE LABEL                UUID                                  MOUNTPOINT
/dev/sda
├─/dev/sda1 xfs                    358e7321-8504-478f-9b46-df3bc3265847 /mnt/freespace
├─/dev/sda2 swap                  54dd74b6-35c2-4395-be70-b028f746e642 [SWAP]
├─/dev/sda3 xfs                    24e33597-8e5a-40f5-a1f2-1db361e59ed2 /
└─/dev/sr0  iso9660 CentOS-8-3-2011-x86_64-dvd 2020-11-18-21-39-52-00 /run/media/yash/CentOS-8-3-2011-x86_64-dvd
[root@localhost ~]#

```

2. Generate a disk usage report of the /usr/share directory, and save the result in the /mnt/freespace/results.txt file.

SOLUTION



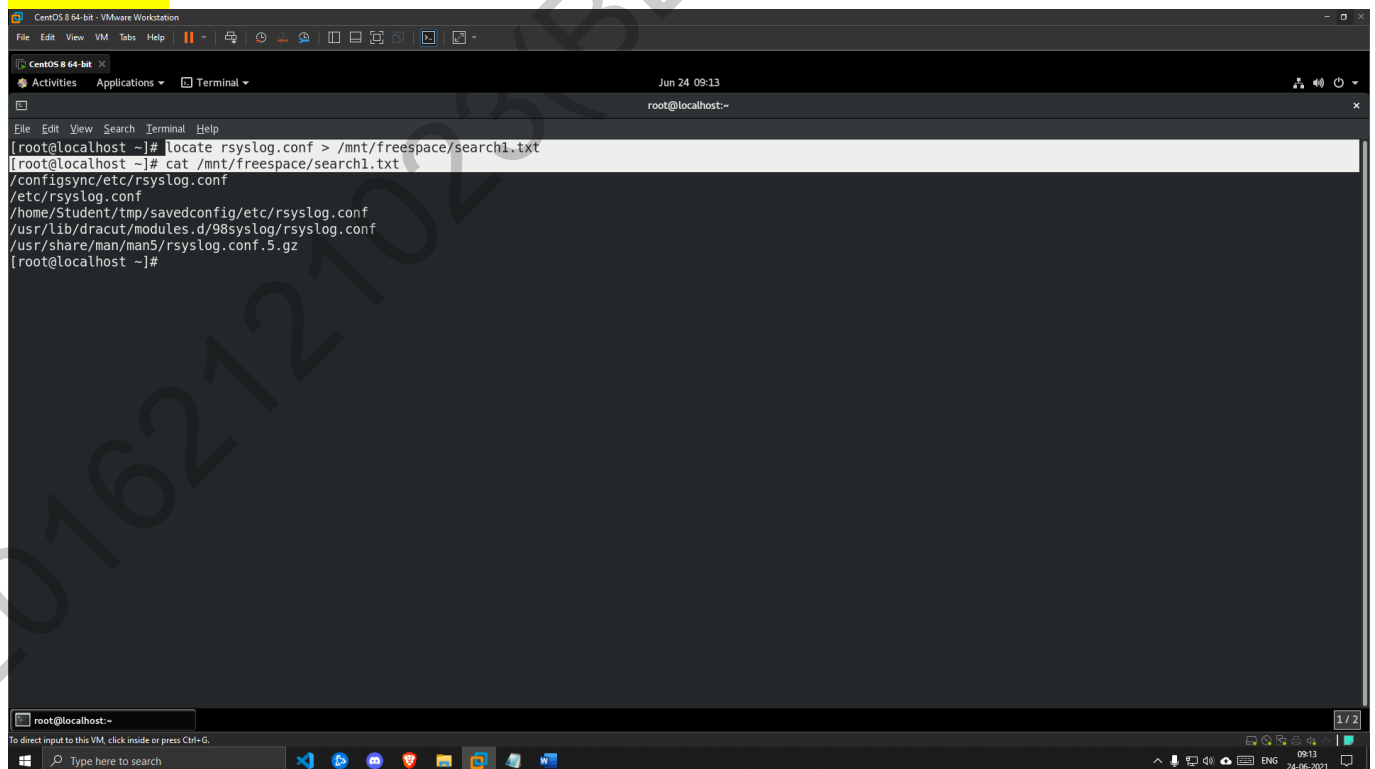
```

CentOS 8 64-bit - VMware Workstation
File Edit View VM Tabs Help
CentOS 8 64-bit
Activities Applications Terminal
Jun 24 09:06
root@localhost:~
File Edit View Search Terminal Help
[root@localhost ~]# du -h /usr/share > /mnt/freespace/results.txt
[root@localhost ~]# cat /mnt/freespace/results.txt
96K    /usr/share/licenses/libgcc
8.0K   /usr/share/licenses/google-noto-fonts-common
4.0K   /usr/share/licenses/tzdata
8.0K   /usr/share/licenses/liberation-fonts-common
36K    /usr/share/licenses/gnu-free-fonts-common
32K    /usr/share/licenses/bind-license
8.0K   /usr/share/licenses/abattis-cantarell-fonts
52K    /usr/share/licenses/yelp-xsl
8.0K   /usr/share/licenses/google-noto-cjk-fonts-common
8.0K   /usr/share/licenses/geolite2
4.0K   /usr/share/licenses/adobe-mappings-cmap
4.0K   /usr/share/licenses/python3-setuptools-wheel
4.0K   /usr/share/licenses/python3-pip-wheel
24K    /usr/share/licenses/dnf
12K    /usr/share/licenses/google-noto-emoji-color-fonts
12K    /usr/share/licenses/google-noto-emoji-fonts
4.0K   /usr/share/licenses/khmeros-fonts-common
28K    /usr/share/licenses/poppler-data
40K    /usr/share/licenses/langtable
28K    /usr/share/licenses/hplip-common
4.0K   /usr/share/licenses/gnome-user-docs
48K    /usr/share/licenses/edk2-ovmf
4.0K   /usr/share/licenses/cldr-emoji-annotation
16K    /usr/share/licenses/adwaita-cursor-theme
4.0K   /usr/share/licenses/adobe-mappings-pdf
16K    /usr/share/licenses/quota-nls
28K    /usr/share/licenses/publicsuffix-list-dafsa
4.0K   /usr/share/licenses/ncurses-base
4.0K   /usr/share/licenses/mobile-broadband-provider-info
492K   /usr/share/licenses/linux-firmware
4.0K   /usr/share/licenses/dhcp-common
20K    /usr/share/licenses/centos-linux-release
20K    /usr/share/licenses/centos-linux-repos

```

3. Use the locate command to find all rsyslog.conf configuration files and store the result in the /mnt/freespace/search1.txt file.

SOLUTION



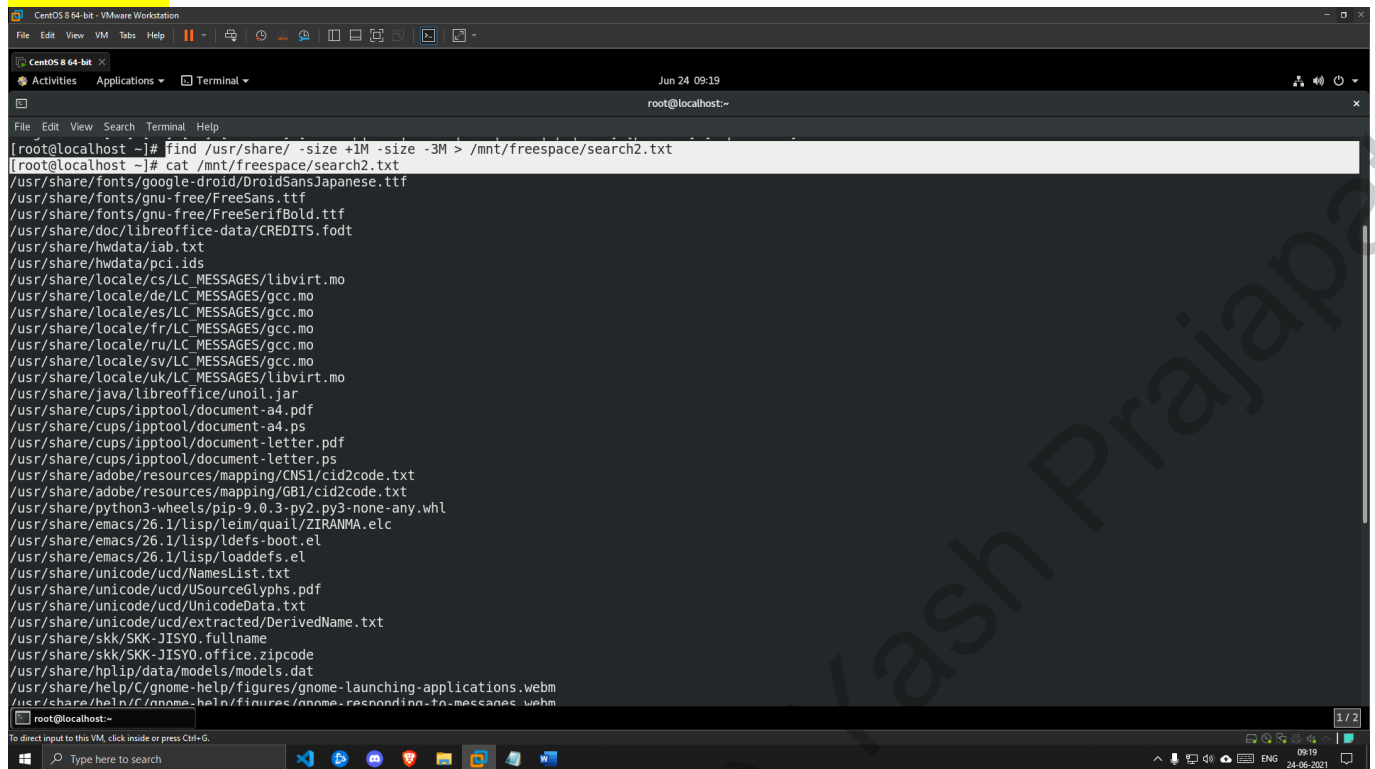
```

CentOS 8 64-bit - VMware Workstation
File Edit View VM Tabs Help
CentOS 8 64-bit
Activities Applications Terminal
Jun 24 09:13
root@localhost:~
File Edit View Search Terminal Help
[root@localhost ~]# locate rsyslog.conf > /mnt/freespace/search1.txt
[root@localhost ~]# cat /mnt/freespace/search1.txt
/configsync/etc/rsyslog.conf
/etc/rsyslog.conf
/home/Student/tmp/savedconfig/etc/rsyslog.conf
/usr/lib/dracut/modules.d/98rsyslog/rsyslog.conf
/usr/share/man/man5/rsyslog.conf.5.gz
[root@localhost ~]#

```

4. Store the search result of all files in the /usr/share directory that is greater than 1 MB and less than 3 MB in the /mnt/freespace/search2.txt file.

SOLUTION



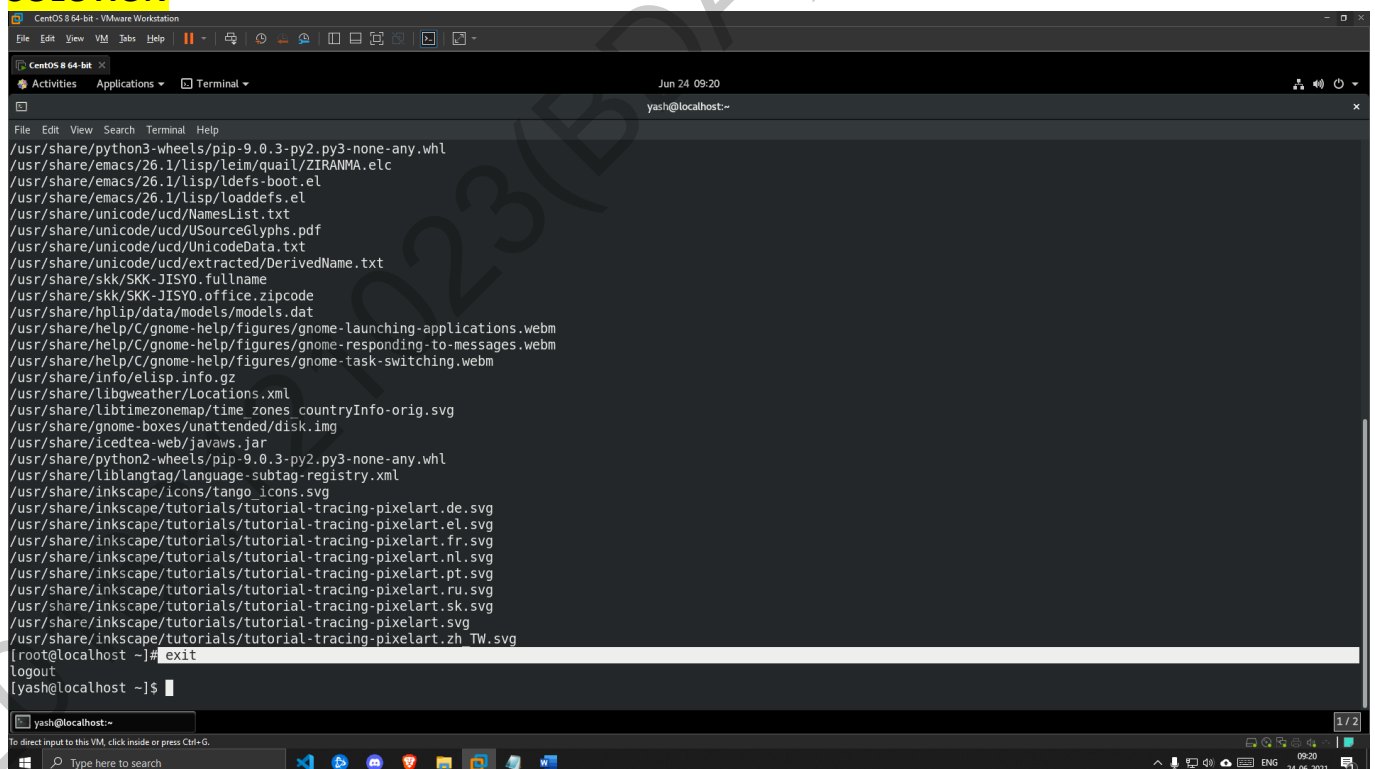
```

CentOS 8 64-bit - VMware Workstation
File Edit View VM Tabs Help
CentOS 8 64-bit
Activities Applications Terminal
Jun 24 09:19
root@localhost:~
File Edit View Search Terminal Help
[root@localhost ~]# find /usr/share/ -size +1M -size -3M > /mnt/freespace/search2.txt
[root@localhost ~]# cat /mnt/freespace/search2.txt
/usr/share/fonts/google-droid/DroidSansJapanese.ttf
/usr/share/fonts/gnu-free/FreeSans.ttf
/usr/share/fonts/gnu-free/FreeSerifBold.ttf
/usr/share/doc/libreoffice-data/CREDITS.fodt
/usr/share/hwdata/iab.txt
/usr/share/hwdata/pai.ids
/usr/share/locale/cs/LC_MESSAGES/libvirt.mo
/usr/share/locale/de/LC_MESSAGES/gcc.mo
/usr/share/locale/es/LC_MESSAGES/gcc.mo
/usr/share/locale/fr/LC_MESSAGES/gcc.mo
/usr/share/locale/ru/LC_MESSAGES/gcc.mo
/usr/share/locale/sv/LC_MESSAGES/gcc.mo
/usr/share/locale/uk/LC_MESSAGES/libvirt.mo
/usr/share/java/libreoffice/unoil.jar
/usr/share/cups/ippool/document-a4.pdf
/usr/share/cups/ippool/document-a4.ps
/usr/share/cups/ippool/document-letter.pdf
/usr/share/cups/ippool/document-letter.ps
/usr/share/adobe/resources/mapping/CNS1/cid2code.txt
/usr/share/adobe/resources/mapping/GB1/cid2code.txt
/usr/share/python3-wheels/pip-9.0.3-py2.py3-none-any.whl
/usr/share/emacs/26.1/lisp/leim/quail/ZIRANMA.elc
/usr/share/emacs/26.1/lisp/ldefs-boot.el
/usr/share/emacs/26.1/lisp/loaddefs.el
/usr/share/unicode/ucd/NamesList.txt
/usr/share/unicode/ucd/USourceGlyphs.pdf
/usr/share/unicode/ucd/UnicodeData.txt
/usr/share/unicode/ucd/extracted/DerivedName.txt
/usr/share/skk/SKK-JISYO.fullname
/usr/share/skk/SKK-JISYO.office.zipcode
/usr/share/hplip/data/models/models.dat
/usr/share/help/C/gnome-help/figures/gnome-launching-applications.webm
/usr/share/help/C/gnome-help/figures/gnome-responding-to-messages.webm

```

5. Exit from root.

SOLUTION



```

CentOS 8 64-bit - VMware Workstation
File Edit View VM Tabs Help
CentOS 8 64-bit
Activities Applications Terminal
Jun 24 09:20
yash@localhost:~
File Edit View Search Terminal Help
/usr/share/python3-wheels/pip-9.0.3-py2.py3-none-any.whl
/usr/share/emacs/26.1/lisp/leim/quail/ZIRANMA.elc
/usr/share/emacs/26.1/lisp/ldefs-boot.el
/usr/share/emacs/26.1/lisp/loaddefs.el
/usr/share/unicode/ucd/NamesList.txt
/usr/share/unicode/ucd/USourceGlyphs.pdf
/usr/share/unicode/ucd/UnicodeData.txt
/usr/share/unicode/ucd/extracted/DerivedName.txt
/usr/share/skk/SKK-JISYO.fullname
/usr/share/skk/SKK-JISYO.office.zipcode
/usr/share/hplip/data/models/models.dat
/usr/share/help/C/gnome-help/figures/gnome-launching-applications.webm
/usr/share/help/C/gnome-help/figures/gnome-responding-to-messages.webm
/usr/share/help/C/gnome-help/figures/gnome-task-switching.webm
/usr/share/info/elisp.info.gz
/usr/share/libweather/Locations.xml
/usr/share/libtimezonemap/time_zones/countryInfo-orig.svg
/usr/share/gnome-boxes/unattended/disk.img
/usr/share/icedtea-web/javaws.jar
/usr/share/python2-wheels/pip-9.0.3-py2.py3-none-any.whl
/usr/share/liblangtag/language-subtag-registry.xml
/usr/share/inkscape/icons/tango_icons.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.de.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.el.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.fr.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.nl.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.pt.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.ru.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.sk.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.svg
/usr/share/inkscape/tutorials/tutorial-tracing-pixelart.zh_TW.svg
[root@localhost ~]# exit
logout
[yash@localhost ~]$

```