## Working with Basic Linux Tools: -

1. Explain the difference between these two commands. This question is very important. If you don't know the answer, then look back at the **shell** chapter.

```
find /home -name "*.txt"   find

/data -name *.txt
```

⇨ When *.txt was quoted the shell did not touch it. The find tool looked in the /data for all files ending in .txt.

```
arun@arun-ubuntu:~$ find /home -name "*.txt"
/home/arun/input.txt
/home/arun/onlineusers.txt
/home/arun/bashuser.txt
/home/arun/count.txt
/home/arun/.cache/tracker3/files/first-index.txt
/home/arun/.cache/tracker3/files/locale-for-miner-apps.txt
/home/arun/.cache/tracker3/files/last-crawl.txt
/home/arun/tmp.txt
/home/arun/bashusers.txt
/home/arun/catcnt.txt
/home/arun/touched/today.txt
/home/arun/touched/yesterday.txt
/home/arun/tailing.txt
/home/arun/.local/share/Trash/files/tailing.txt
/home/arun/.local/share/Trash/files/tailing.2.txt
```

⇨ When *.txt is not quoted the shell might expand this (when one or more files that ends in .txt exist in the current directory). The find showed a syntax error in the result.

```
arun@arun-ubuntu:~$ find /data -name *.txt
find: paths must precede expression: `bashuser.txt'
find: possible unquoted pattern after predicate `-name'?
```

2. Explain the difference between these two statements. Will they both work when there are 200 **.odf** files in **/data** ? How about when there are 2 million .odf files ?

```
find /home -name "*.txt" > data_odf.txt   find

/home/*.odf > data_odf.txt
```

  ⇨ find /home -name "*.odf" > data_odf.txt - Find will output all .odf filenames in /home and all subdirectories. The shell will redirect this to a file.

  ⇨ find /home/*.odf > data_odf.txt - Find will output all files named .odf in /home and will also output all files that exist in directories named *.odf (in /home).

3. Count the number of *.conf files in /etc and all its subdirs.

```
arun@arun-ubuntu:~$ find /etc -type f -name '*conf' | wc -l
find: '/etc/polkit-1/localauthority': Permission denied
find: '/etc/ssl/private': Permission denied
find: '/etc/cups/ssl': Permission denied
346
```

4.) Here are two commands that do the same thing: copy *.txt files to /backup/. What would be a reason to replace the first command with the second ? Again, this is an important question :-

```
cp -r /home/*.txt /backup/  find /home -name

"*.txt" -exec cp {} /backup/ \;
```

  ⇨ The reason to replace the first command is because the first might fail when there are too many files to fit on one command line.

```
arun@arun-ubuntu:~$ cp -r /home/*.txt /backup/
cp: cannot stat '/home/*.txt': No such file or directory
arun@arun-ubuntu:~$ find /home -name "*.txt" -exec cp {} /backup/ \;
cp: cannot create regular file '/backup/': Not a directory
cp: cannot create regular file '/backup/': Not a directory
cp: cannot create regular file '/backup/': Not a directory
```

5.) Create a file called loctest.txt. Can you find this file with locate ? Why not ? How do you make locate find this file ? :-

```
arun@arun-ubuntu:~$ touch Documents/loctest.txt
arun@arun-ubuntu:~$ locate loctest.txt
/home/arun/Documents/loctest.txt
```

6.) Use find and -exec to rename all .htm files to .html :-

```
arun@arun-ubuntu:~$ find -name '*htm' -exec mv {} {}l \;
arun@arun-ubuntu:~$ find -name '*htm'
```

7.) Issue the date command. Now display the date in YYYY/MM/DD format:-

```
arun@arun-ubuntu:~$ date  +%Y/%m/%d
2023/05/01
```

8) .) Issue the cal command. Display a calendar of 1582 and 1752. Notice anything special ?:-