

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 ?:-

1582																											
जनवरी														फरवरी													
रव	सो	मं	बु	गु	शु	शनि	बु	गु	शु	शनि	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	बु	गु	शु	शनि	गु		
शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	गु	शु	शु	शनि	बु	गु	शु	शनि	गु	शु	शनि	शु	शनि	गु		
1	2	3	4	5	6							1	2	3													
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10							
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17							
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24							
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31							

अप्रैल														मई													
रव	सो	मं	बु	गु	शु	शनि	बु	गु	शु	शनि	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	बु	गु	शु	शनि	गु		
शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	गु	शु	शु	शनि	बु	गु	शु	शनि	गु	शु	शनि	शु	शनि	गु		
1	2	3	4	5	6	7					1	2	3	4	5												
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9							

1752																												
जनवरी							फरवरी							मार्च														
रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	गु
शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	गु
5	6	7	8	9	10	11	2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	6	7	
12	13	14	15	16	17	18	9	10	11	12	13	14	15	8	9	10	11	12	13	14	8	9	10	11	12	13	14	
19	20	21	22	23	24	25	16	17	18	19	20	21	22	15	16	17	18	19	20	21	15	16	17	18	19	20	21	
26	27	28	29	30	31		23	24	25	26	27	28	29	22	23	24	25	26	27	28	22	23	24	25	26	27	28	

अप्रैल							मई							जून														
रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	गु
शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	गु
5	6	7	8	9	10	11	3	4	5	6	7	8	9	1	2	3	4	5	6	7	1	2	3	4	5	6	7	
12	13	14	15	16	17	18	10	11	12	13	14	15	16	7	8	9	10	11	12	13	7	8	9	10	11	12	13	
19	20	21	22	23	24	25	17	18	19	20	21	22	23	14	15	16	17	18	19	20	14	15	16	17	18	19	20	
26	27	28	29	30			24	25	26	27	28	29	30	21	22	23	24	25	26	27	21	22	23	24	25	26	27	

जुलाई							अगस्त							सितम्बर														
रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	रव	सो	मं	बु	गु	शु	शनि	गु
शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	शु	शनि	गु	शु	शनि	शु	शनि	गु
5	6	7	8	9	10	11	2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	6	7	
12	13	14	15	16	17	18	9	10	11	12	13	14	15	8	9	10	11	12	13	14	8	9	10	11	12	13	14	
19	20	21	22	23	24	25	16	17	18	19	20	21	22	15	16	17	18	19	20	21	15	16	17	18	19	20	21	