

Name: Shangirne Kharbanda_
Registration Number: 20BAI1154

OS LAB-1

1. Calendar command:

```
alaric@alaric-virtual-machine:~$ cal 11 2017
November 2017
Su Mo Tu We Th Fr Sa
          1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30
```

2. Date command:

```
alaric@alaric-virtual-machine:~$ date
Thursday 17 February 2022 03:09:31 AM IST
```

3. Who command:

```
alaric@alaric-virtual-machine:~$ who
alaric      :0                2022-02-17 03:04 (:0)
```

4. Who am I command:

```
alaric@alaric-virtual-machine:~$ whoami
alaric
```

5. Help command:

```

alaric@alaric-virtual-machine:~$ help
GNU bash, version 5.0.17(1)-release (x86_64-pc-linux-gnu)
These shell commands are defined internally. Type 'help' to see this list.
Type 'help name' to find out more about the function 'name'.
Use 'info bash' to find out more about the shell in general.
Use 'man -k' or 'info' to find out more about commands not in this list.

A star (*) next to a name means that the command is disabled.

job_spec [&]
(( expression ))
. filename [arguments]
:
[ arg... ]
[[ expression ]]
alias [-p] [name[=value] ... ]
bg [job_spec ...]
bind [-lpsvPSVX] [-m keymap] [-f filename] [->
break [n]
builtin [shell-builtin [arg ...]]
caller [expr]
case WORD in [PATTERN] [PATTERN]...) COMMAND>
cd [-L][[-P [-e]] [-@]] [dir]
command [-pVv] command [arg ...]
compgen [-abdefgjkshuv] [-o option] [-A actio>
complete [-abdefgjkshuv] [-pr] [-DEI] [-o opt>
compopt [-o|+o option] [-DEI] [name ...]
continue [n]
coproc [NAME] command [redirections]
declare [-aAfFgIlNrtux] [-p] [name[=value] ..>
dirs [-clpv] [+N] [-N]
disown [-h] [-ar] [job_spec ... | pid ...]
echo [-neE] [arg ...]
enable [-a] [-dnps] [-f filename] [name ...]
eval [arg ...]
exec [-cl] [-a name] [command [arguments ...]>
exit [n]
export [-fn] [name[=value] ...] or export -p
false
fc [-e ename] [-lnr] [first] [last] or fc -s >
fg [job_spec]
for NAME [in WORDS ... ] ; do COMMANDS; done
for (( exp1; exp2; exp3 )); do COMMANDS; don>
function name { COMMANDS ; } or name () { COM>
getopts optstring name [arg]
history [-c] [-d offset] [n] or history -anr>
if COMMANDS; then COMMANDS; [ elif COMMANDS;>
jobs [-lnprs] [job_spec ...] or jobs -x comma>
kill [-s sigspec | -n signum | -sigspec] pid>
let arg [arg ...]
local [option] name[=value] ...
logout [n]
mapfile [-d delim] [-n count] [-O origin] [->
popd [-n] [+N | -N]
printf [-v var] format [arguments]
pushd [-n] [+N | -N | dir]
pwd [-LP]
read [-ers] [-a array] [-d delim] [-i text] >
readarray [-d delim] [-n count] [-O origin] >
readonly [-aAf] [name[=value] ...] or readon>
return [n]
select NAME [in WORDS ... ;] do COMMANDS; do>
set [-abefhkmnptuvxBCHP] [-o option-name] [->
shift [n]
shopt [-pqsu] [-o] [optname ...]
source filename [arguments]
suspend [-f]
test [expr]
time [-p] pipeline
times
trap [-lp] [[arg] signal_spec ...]
true
type [-afptP] name [name ...]
typeset [-aAfFgIlNrtux] [-p] name[=value] .>
ulimit [-SHabdefiklmnpqrstuvxPT] [limit]
umask [-p] [-S] [mode]
unalias [-a] name [name ...]
unset [-f] [-v] [-n] [name ...]
until COMMANDS; do COMMANDS; done
variables - Names and meanings of some shell>
wait [-fn] [id ...]

```

6. Clear Command:

```
alaric@alaric-virtual-machine:~$ clear
```

7. ID command:

```
alaric@alaric-virtual-machine:~$ id
uid=1000(alaric) gid=1000(alaric) groups=1000(alaric),4(adm),24(cdrom),27(sudo),30(dip),46(plugdev),120(lpadmin),132(lxd),133(sambashare)
```

8. echo command:

```
alaric@alaric-virtual-machine:~$ echo something
something
```

9. tty command:

```
alaric@alaric-virtual-machine:~$ tty
/dev/pts/0
```

FILE MANIPULATION COMMANDS

1. Create a file:

```
alaric@alaric-virtual-machine:~$ vi file1.c
alaric@alaric-virtual-machine:~$ vi file2.c
```

2. Head Command:

```
alaric@alaric-virtual-machine:~$ head -1 file1.c
Hello
```

3. Tail command:

```
alaric@alaric-virtual-machine:~$ tail -2 file1.c
I am awesome
```

4. List information about files and directories

```
alaric@alaric-virtual-machine:~$ ls
alaric Desktop Documents Downloads fil1.x file1.c file2.c Music Pictures Public snap Templates Videos
```

5. Copy a file:

```
alaric@alaric-virtual-machine:~$ cp file1.c file3.c
alaric@alaric-virtual-machine:~$ ls
alaric Desktop Documents Downloads fil1.x file1.c file2.c file3.c Music Pictures Public snap Templates Videos
```

6. Move or rename a file:

```
alaric@alaric-virtual-machine:~$ mv file1.c file5.c
alaric@alaric-virtual-machine:~$ ls
alaric Desktop Documents Downloads fil1.x file2.c file3.c file5.c Music Pictures Public snap Templates Videos
```

7. Remove a file:

```
alaric@alaric-virtual-machine:~$ rm fil1.x
alaric@alaric-virtual-machine:~$ ls
alaric Desktop Documents Downloads file2.c file3.c file5.c Music Pictures Public snap Templates Videos
```

9. Display the contents of a file onto screen:

```
alaric@alaric-virtual-machine:~$ cat file5.c
Hello
How are you
I am awesome
```

10. Word count command:

```
alaric@alaric-virtual-machine:~$ wc file5.c
 4  7 35 file5.c
```

11. Find Command:

```
alaric@alaric-virtual-machine:~$ find ./file5.c
./file5.c
```

```
alaric@alaric-virtual-machine:~$ find file2.c
file2.c
```

12. Comparing files:

```
alaric@alaric-virtual-machine:~$ cmp file5.c file8.c
file5.c file8.c differ: byte 1, line 1
```

13. Differentiating Files:

```
alaric@alaric-virtual-machine:~$ diff file5.c file8.c
1,3c1
< Hello
< How are you
< I am awesome
---
> something something something
```

DIRECTORY COMMANDS

1. Create a directory:

```
alaric@alaric-virtual-machine:~$ mkdir my_direct
alaric@alaric-virtual-machine:~$ ls
alaric Desktop Documents Downloads file2.c file3.c file5.c file8.c Music my_direct Pictures Public snap Templates Videos
```

2. List all directories (including .(dot) entries in the long listing.)

```
alaric@alaric-virtual-machine:~$ ls -la
total 108
drwxr-xr-x 19 alaric alaric 4096 Feb 17 03:30 .
drwxr-xr-x  3 root  root  4096 Feb 11 07:10 ..
drwxrwxr-x  2 alaric alaric 4096 Feb 11 08:09 alaric
-rw-r--r--  1 alaric alaric  642 Feb 17 03:11 .bash_history
-rw-r--r--  1 alaric alaric  220 Feb 11 07:10 .bash_logout
-rw-r--r--  1 alaric alaric 3771 Feb 11 07:10 .bashrc
drwx----- 12 alaric alaric 4096 Feb 11 08:17 .cache
drwx----- 14 alaric alaric 4096 Feb 11 08:39 .config
drwxr-xr-x  2 alaric alaric 4096 Feb 11 07:20 Desktop
drwxr-xr-x  2 alaric alaric 4096 Feb 11 07:20 Documents
drwxr-xr-x  2 alaric alaric 4096 Feb 11 07:20 Downloads
-rw-rw-r--  1 alaric alaric   35 Feb 17 03:23 file2.c
-rw-rw-r--  1 alaric alaric   35 Feb 17 03:24 file3.c
-rw-rw-r--  1 alaric alaric   35 Feb 17 03:20 file5.c
-rw-rw-r--  1 alaric alaric   32 Feb 17 03:29 file8.c
drwx-----  3 alaric alaric 4096 Feb 15 03:33 .gnupg
drwxr-xr-x  3 alaric alaric 4096 Feb 11 07:20 .local
drwx-----  4 alaric alaric 4096 Feb 11 08:17 .mozilla
drwxr-xr-x  2 alaric alaric 4096 Feb 11 07:20 Music
drwxrwxr-x  2 alaric alaric 4096 Feb 17 03:30 my_direct
drwxr-xr-x  2 alaric alaric 4096 Feb 11 07:20 Pictures
-rw-r--r--  1 alaric alaric  807 Feb 11 07:10 .profile
drwxr-xr-x  2 alaric alaric 4096 Feb 11 07:20 Public
drwx-----  3 alaric alaric 4096 Feb 11 07:23 snap
drwx-----  2 alaric alaric 4096 Feb 11 07:25 .ssh
-rw-r--r--  1 alaric alaric    0 Feb 11 07:45 .sudo_as_admin_successful
drwxr-xr-x  2 alaric alaric 4096 Feb 11 07:20 Templates
drwxr-xr-x  2 alaric alaric 4096 Feb 11 07:20 Videos
```

3. Change from one directory to another:

```
alaric@alaric-virtual-machine:~$ cd my_direct
alaric@alaric-virtual-machine:~/my_direct$
```

4. Display the full path of the current working directory:

```
alaric@alaric-virtual-machine:~/my_direct$ pwd
/home/alaric/my_direct
```

5. Remove a directory:

```
alaric@alaric-virtual-machine:~$ rmdir my_direct
alaric@alaric-virtual-machine:~$ ls
alaric Desktop Documents Downloads file2.c file3.c file5.c file8.c Music Pictures Public snap Templates Videos
```

8.Link Command:

```
alaric@alaric-virtual-machine:~$ ls
alaric Desktop Documents Downloads file2.c file3.c file5.c file8.c Music Pictures Public snap Templates Videos
alaric@alaric-virtual-machine:~$ mkdir root
alaric@alaric-virtual-machine:~$ ln -t root file5.c
alaric@alaric-virtual-machine:~$ cd root
alaric@alaric-virtual-machine:~/root$ ls
file5.c
```