ASSIGNMENT-1 LINUX

Q1 1) use a command to show the current working directory - list the directory contents in the short and long format. Explore attributes given in long format. List all files along with hidden files in current working directory. - list only hidden files in the directory

cdac\_kh@DESKTOP-M3TSUJI: S pwd

/home/cdac\_kh

cdac\_kh@DESKTOP-M3TSUJI: S Is

1 2 3 c1 dbda.txt dbda1.txt dbda2.txt tom5

cdac\_kh@DESKTOP-M3TSUJI:-$ Is -I total 24

drwxr-xr-x 2 root root 4096 Mar 9 16:31 1

drwxr-xr-x 2 root root 4096 Mar 9 16:31 2

drwxr-xr-x 2 root root 4096 Mar 9 16:31 3

drwxr-xr-x 3 root root 4096 Mar 9 16:28 c1

-rwx------ 1 root root 0 Mar 10 16:07 dbda.txt

-rw-rw---- 1 root root 0 Mar 10 16:10 dbda1.txt

---------- 1 root root 92 Mar 10 16:24 dbda2.txt

drw-rw---- 2 root root 4096 Mar 9 16:36 tom5

cdac\_kh@LAPTOP-T0AOSNDJ: S Is -a

.bash\_Iogout .local .sudo\_as\_admin\_successfuI 2 dbda.txt tom5

.bashrc .motd\_shown .viminfo

.bash\_history .landscape .profile 1

3 dbda1.txt c1 dbda2.txt

1. **Make a directory and name it as cdac-dir and change the current working directory to**

the new directory.

cdac\_kh@DESKTOP-M3TSUJI:-$ Is

1 2 3 c1 dbda.txt dbda1.txt dbda2.txt tom5

cdac\_kh@DESKTOP-M3TSUJI: S mkdir cdac-dir

cdac\_kh@DESKTOP-M3TSUJI:”$ Is

1 2 3 c1 cdac-dir dbda.txt dbda1.txt dbda2.txt tom5 cdac\_kh@DESKTOP-M3TSUJI: S cd cdac-dir cdac\_kh@DESKTOP-M3TSUJI:”/cdac-dir$ pwd

/home/cdac\_kh/cdac-dir

cdac\_kh@DESKTOP-M3TSUJI:”/cdac-dir$ cd cdac\_kh@DESKTOP-M3TSUJI: S cd cdac\_kh@DESKTOP-M3TSUJI:/home$

1. **Create following nested directories inside current directory by invoking single command**

for only one time.

cdac\_kh@DESKTOP-M3TSUJI: /S sudo mkdir root1 [sudo] password for cdac\_kh:

cdac\_kh@DESKTOP-M3TSUJI: /S cd root1 cdac\_kh@DESKTOP-M3TSUJI:/root1 S sudo su

root@DESKTOP-M3TSUJI:/root1# mkdir -p a1/b1 a1/b2 a2/c1 a2/c2

root@DESKTOP-M3TSUJI:/root1# cd root@DESKTOP-M3TSUJI:/# tree root1 FOOt1

FOOt1

a1

b1

b2

a2

c1

c2

root@DESKTOP-M3TSUJI:/# mkdir root2 root@DESKTOP-M3TSUJI:/# cd root2

root@DESKTOP-M3TSUJI:/root2# mkdir -p a1/b1/c1 a2/b2/c2 root@DESKTOP-M3TSUJI:/root2# cd ..

root@DESKTOP-M3TSUJI:/# tree root2 root2

a1

b1 “c1 a2

b2

c2

6 directories, 0 files

1. **List the directories(folders), then remove the cdac-dir directory and list the folders**

again to show that it is no longer present.

root@DESKTOP-M3TSUJI:/# cd home root@DESKTOP-M3TSUJI:/home# Is cdac\_kh f1 folder1 folder2 mon tom2

root@DESKTOP-M3TSUJI:/home# mkdir cdac-dir root@DESKTOP-M3TSUJI:/home# Is

cdac-dir cdac\_kh f1 folder1 folder2 mon tom2 root@DESKTOP-M3TSUJI:/home# rmdir cdac-dir root@DESKTOP-M3TSUJI:/home# Is

cdac kh f1 folder1 folder2 mon tom2

**Q2** 1) **1. Display the man-page for Is, but redirect the output into temp.txt, then use the cat, less, and more commands to display the new file.**

root@DESKTOP-M3TSUJI:/home# man Is

root@DESKTOP-M3TSUJI:/home# cat > temp.txt xsdc

root@DESKTOP-M3TSUJI:/home# man Is root@DESKTOP-M3TSUJI:/home# cat > temp.txt

LS(1)

NAME

User Commands

LS(1)

Is - list directory contents

SYNOPSIS

Is [OPTION]... [FILE]...

DESCRIPTION

List information about the FILEs (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort is spec- ified.

Mandatory arguments to long options are mandatory for short options

tOO.

-a, --all

do not ignore entries starting with .

-A, --almost-all

do not list implied . and ..

--author

with -I, print the author of each file

-b, --escape

print C-style escapes for nongraphic characters

--block-size=SIZE

with -I, scale sizes by SIZE when printing them; e.g.,

’--block-size=M“, see SIZE format below

-B, --ignore-backups

do not list implied entries ending with

-c with -It: sort by, and show, ctime (time of last modification of file status information); with -I: show ctime and sort by

name; otherwise: sort by ctime, newest first

-C list entries by columns

--color[=WHEN]

colorize the output; WHEN can be 'always’ (default if omit- ted), 'auto', or ’never' more info below

-d, --directory

list directories themselves, not their contents root@DESKTOP-M3TSUJI:/home# less temp.txt root@DESKTOP-M3TSUJI:/home# more temp.txt

LS(1) NAME

User Commands

LS(1)

Is - list directory contents

SYNOPSIS

Is [OPTION]... [FILE]...

DESCRIPTION

List information about the FILEs (the current directory by default). Sort entries alphabetically if none of -cftuvSUX nor --sort is spec- ified.

Mandatory arguments to long options are mandatory for short options

tOO.

-a, --all

do not ignore entries starting with .

-A, --almost-all

do not list implied . and ..

--author

with -I, print the author of each file

-b, --escape

print C-style escapes for nongraphic characters

--block-size=SIZE

with -I, scale sizes by SIZE when printing them; e.g.,

’--block-size=M'; see SIZE format below

-B, --ignore-backups

do not list implied entries ending with

--More--(66%)

Q2 2) Display the initial 10 lines and final 5 lines of temp.txt with the obvious Linux

**commands**

root@DESKTOP-M3TSUJI:/home# head -n 10 temp.txt

LS(1)

NAME

User Commands

LS(1)

Is - list directory contents

SYNOPSIS

Is [OPTION]... (FILE]...

DESCRIPTION

List information about the FILEs (the current directory by default).

root@LAPTOP-T0AOSNDJ:/home# tail -n 5 temp.txt

ted), ’auto', or ’never' more info below

-d, --directory

list directories themselves, not their contents

Q2 3) Copy temp.txt to another directory and rename it there

root@DESKTOP-M3TSUJI:/home# Is

cdac kh f1 folder1 folder2 mon temp.txt tom2 root@DESKTOP-M3TSUJI:/home# cp temp.txt tom2 root@DESKTOP-M3TSUJI:/home# cd tom2 root@DESKTOP-M3TSUJI:/home/tom2# Is

temp.txt

root@DESKTOP-M3TSUJI:/home/tom2# mv temp.txt text.txt

root@DESKTOP-M3TSUJI:/home/tom2# Is

text.txt

Q2 4) . Display the number of lines, words and characters in file using Linux command. root@DESKTOP-M3TSUJI:/home# cat > zxc.txt

hi hiiiii

mumbai

kh dbda dac cdac kh patil

simran

by

bye bye asd

ZXC

zxcvb mnv qwe

root@DESKTOP-M3TSUJI:/home# wc -I zxc.txt

16 zxc.txt

root@DESKTOP-M3TSUJI:/home# wc -w zxc.txt

18 zxc.txt

root@DESKTOP-M3TSUJI:/home# wc -m zxc.txt

89 zxc.txt

# Q2 5) Use history command to display last 10 commands used.

root@DESKTOP-M3TSUJI:/home# history 10

|  |  |
| --- | --- |
| 176 | cd .. |
| 177 | wc -I text,txt |
| 178 | mkdir asd.txt |
| 179 | Is |
| 180 | cat > asd.txt |
| 181 | cat > zxc.txt |
| 182 | wc -I zxc.txt |
| 183 | wc -w zxc.txt |
| 184 | wc -m zxc.txt |
| 185 | history 10 |

# Q3 1) Create tar archive file of any directory present in your home directory. - list the contents of the archive file without extracting

root@DESKTOP-M3TSUJI:/home#tar -cf archive.tar temp.txt root@DESKTOP-M3TSUJI:/home# Is

archive.tar asd.txt cdac\_kh f1 folder1 folder2 mon temp.txt tom2 zxc.txt

Q3 2) Create zip file of another directory. - list the contents of the zip file without extracting.

root@DESKTOP-M3TSUJI:/home# gzip zxc.txt root@DESKTOP-M3TSUJI:/home# Is

archive.tar asd.txt cdac kh f1 folder1 folder2 mon temp.txt tom2 zxc.txt.gz

Q3 3) Give read, write & execute permissions to your file. root@DESKTOP-M3TSUJI:/home# Is -I

total 48

-rw-r--r-- 1 root root 10240 Mar 10 20:46 archive.tar

drwxr-xr-x 2 root root 4096 Mar 10 20:18 asd.txt

drwxr-xr-x 10 cdac\_kh cdac\_kh 4096 Mar 10 17:59 cdac\_kh

drwxr-xr-x 2 root root 4096 Mar 9 11:05 f1

drwxr-xr-x 2 root root 4096 Mar 9 15:32 folder1

drwxr-xr-x 2 root root 4096 Mar 9 15:33 folder2

drwxr-xr-x 2 root root 4096 Mar 10 15:50 mon

-rw-r--r-- 1 root root 1457 Mar 10 18:52 temp.txt

drwxr-xr-x 2 root root 4096 Mar 10 19:08 tom2

-rw-r--r-- 1 root root 96 Mar 10 20:21 zxc.txt.gz

root@DESKTOP-M3TSUJI:/home# chmod 777 temp.txt root@DESKTOP-M3TSUJI:/home# Is -I

total 48

-rw-r--r-- 1 root root 10240 Mar 10 20:46 archive.tar

drwxr-xr-x 2 root root 4096 Mar 10 20:18 asd.txt

drwxr-xr-x 10 cdac\_kh cdac\_kh 4096 Mar 10 17:59 cdac\_kh

drwxr-xr-x 2 root root 4096 Mar 9 11:05 f1

drwxr-xr-x 2 root root 4096 Mar 9 15:32 folder1

drwxr-xr-x 2 root root 4096 Mar 9 15:33 folder2

drwxr-xr-x 2 root root 4096 Mar 10 15:50 mon

-rwxrwxrwx 1 root root 1457 Mar 10 18:52 temp.txt

drwxr-xr-x 2 root root 4096 Mar 10 19:08 tom2

-rw-r--r-- 1 root root 96 Mar 10 20:21 zxc.txt.gz

**Q3 4) Change ownership of that file** root@DESKTOP-M3TSUJI:/home# Is -I total 48

-rw-r--r-- 1 root root 10240 Mar 10 20:46 archive.tar

drwxr-xr-x 2 root root 4096 Mar 10 20:18 asd.txt

9

drwxr-xr-x 10 cdac\_kh cdac\_kh 4096 Mar 10 17:59 cdac\_kh

drwxr-xr-x 2 root root 4096 Mar 9 11:05 f1

drwxr-xr-x 2 root root 4096 Mar 9 15:32 folder1

drwxr-xr-x 2 root root 4096 Mar 9 15:33 folder2

drwxr-xr-x 2 root root 4096 Mar 10 15:50 mon

-rwxrwxrwx 1 root root 1457 Mar 10 18:52 temp.txt

drwxr-xr-x 2 root root 4096 Mar 10 19:08 tom2

-rw-r--r-- 1 root root 96 Mar 10 20:21 zxc.txt.gz

root@DESKTOP-M3TSUJI:/home# chown cdac\_kh temp.txt root@DESKTOP-M3TSUJI:/home# Is -I

total 48

-rw-r--r-- 1 root root 10240 Mar 10 20:46 archive.tar

drwxr-xr-x 2 root root 4096 Mar 10 20:18 asd.txt

drwxr-xr-x 10 cdac\_kh cdac\_kh 4096 Mar 10 17:59 cdac\_kh

drwxr-xr-x 2 root root 4096 Mar 9 11:05 f1

drwxr-xr-x 2 root root 4096 Mar 9 15:32 folder1

drwxr-xr-x 2 root root 4096 Mar 9 15:33 folder2

drwxr-xr-x 2 root root 4096 Mar 10 15:50 mon

-rwxrwxrwx 1 cdac\_kh root 1457 Mar 10 18:52 temp.txt

drwxr-xr-x 2 root root 4096 Mar 10 19:08 tom2

-rw-r--r-- 1 root root 96 Mar 10 20:21 zxc.txt.gz

# Q3 5) List processes running in shell, all running processes and show top processes in decreasing order of their resource utilization.

root@DESKTOP-M3TSUJI:/home# ps PID TTY TIME CMD

22 pts/0 00:00:00 sudo

23 pts/0 00:00:00 su

24 pts/0 00:00:00 bash

31 pts/0 00:00:00 ps

cdac\_kh@DESKTOP-M3TSUJI:”$ cd / cdac\_kh@DESKTOP-M3TSUJI:/$ cd home cdac\_kh@DESKTOP-M3TSUJI:/home$ top

top - 22:06:25 up 21 min, 0 users, load average: 0.00, 0.00, 0.00

Tasks: 5 total, 1 running, 4 sleeping, 0 stopped, 0 zombie

%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni,100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st

MiB Mem : 3802.5 total, 3681.7 free, 74.8 used, 46.0 buff/cache

MiB Swap: 1024.0 total, 1024.0 free, 0.0 used. 3624.4 avail Mem

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 root | 20 0 | 1744 | 1080 | 1016 S 0.0 0.0 0:00.07 init |
| 23 root | 20 0 | 1752 | 68 | 0 S 0.0 0.0 0:00.00 init |
| 24 root | 20 0 | 1752 | 76 | 0 S 0.0 0.0 0:00.01 init |

25 cdac\_kh 20 0 10040 5104 3408 S 0.0 0.1 0:00.04 bash

38 cdac\_kh 20 0 10876 3688 3176 R 0.0 0.1 0:00.03 top

# Q4 1) 1. Display current time and calendar

root@DESKTOP-M3TSUJI:/# date Thu Mar 10 21:04:25 IST 2022

root@DESKTOP-M3TSUJI:/# cal March 2022

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 31

Q4 2) Change the current date and time of the **system to following 14th March 2017,**

10:10 AM

cdac\_kh@DESKTOP-M3TSUJI:/home$ sudo date -s ’14 March 2017 10:10:00' [sudo] password for cdac\_kh:

Tue Mar 14 10:10:00 IST 2017

cdac\_kh@DESKTOP-M3TSUJI:/home$ date Tue Mar 14 10:10:09 IST 2017

cdac\_kh@DESKTOP-M3TSUJI:/home$

# Q4 3) Explore following commands who, whoami, whatis, whereis

cdac\_kh@DESKTOP-M3TSUJI:/home$ whoami cdac\_kh

cdac\_kh@DESKTOP-M3TSUJI:/home$ whatis man

man (1)

man (7)

* an interface to the system reference manuals
* macros to format man pages

cdac\_kh@LAPTOP-T0AOSNDJ:/home$ whereis zxc.txt

**ZXC'**