

Linux Assignments

Submitted by
Senjila.s

Linux Assignments

- 1) Create 2 users & add them in group sales. Give group ownership to folder /home/consultants. Apply 2774 permission & o+t sticky bit. Test the permissions.

Output:

[illegible]

- 2) Modify above user :
 Uid = 2000
 Shell = /sbin/nologin
 Comment = Sales
 output:

```
root@localhost: ~# tail -n3 /etc/passwd
bash: tail: command not found
root@localhost: ~# tail -n3 /etc/passwd
b2:c:1982:1984::/home/b2:/bin/bash
s11:c:2980:1198::/home/s11:/bin/bash
s12:c:2981:1087::/home/s12:/bin/bash
root@localhost: ~#
```

- 3) Add 5GB HDD to VM, Format it with ext4 & mount on /data Mount point.

```

[root@localhost ~]# df -h
Filesystem            Size  Used Avail  Use% Mounted on
/dev/mapper/centos-root 15G  680M   14G    5% /
devtmpfs                48M    0B   48M    0% /dev/shm
tmpfs                   127M   12M   115M    10% /var/run
tmpfs                    912M   8.6M   904M    1% /run
tmpfs                   912M   0B   912M    0% /sys/fs/cgroup
/dev/sda1               1041G   143M   927G    1% /boot
/dev/sda6                4.0G    28M   3.9G    1% /media/usb
[root@localhost ~]#

```

- 4) Add network card & configure static networking Ip address:
192.168.10.1/24, Default Gateway : 192.168.10.50 DNS : 192.168.10.51

[illegible]

26 root	0.0	0	0	0.0	0.0	0.0	0.00.00	split0
278 root	0-28	0	0	0.5	0.0	0.0	0:00.00	spt_coll_0
273 root	0-28	0	0	0.5	0.0	0.0	0:00.00	spt0

```

278 root      0 -20      0      0      0 S  0.0  0.0  0:00.00 mpt_poll_0
273 root      0 -20      0      0      0 S  0.0  0.0  0:00.00 mnt/0

```

8) Copy files from /home/consultants to /tmp

```
root@localhost home# cd consultants
root@localhost consultants# cat > my file
cat: file: No such file or directory
root@localhost consultants# cat > my file.txt
cat: file.txt: No such file or directory
root@localhost consultants# touch file
root@localhost consultants# cd ..
-bash: cd: command not found
root@localhost consultants# cd
root@localhost # ls
root@localhost # cp -R /home/consultants /home/tmp
cp: cannot stat '/home/consultants': No such file or directory
root@localhost # cp -R /home/consultants /home/tmp
root@localhost # cd /home/tmp
root@localhost tmp# ls
consultants
root@localhost tmp# cd
root@localhost # rm -rf /home
root@localhost # ls
anaconda-k8s.cfg
root@localhost # rm -rf /home/consultants
root@localhost # cd /home/consultants
root@localhost consultants# touch senja.txt
root@localhost consultants# cd ..
root@localhost home# cd
root@localhost # rm -rf /home/tmp
root@localhost # cp -R /home/consultants/senja.txt /home/tmp
cp: cannot stat '/home/consultants/senja.txt': No such file or directory
root@localhost # cp /home/consultants/senja.txt /home/tmp
cp: cannot stat '/home/consultants/senja.txt': No such file or directory
root@localhost # cp -p /home/consultants/senja.txt /home/tmp
root@localhost # cd /home/tmp
root@localhost tmp# ls
senja.txt
root@localhost tmp# _
```

9) Create a Nesting Directory structure – practice touch,rm,rmdir,mv,cat,ls,head,tail commands output:

```
249 man ls
250 mkdir /tmp/directory
251 mkdir /tmp/directory
252 mkdir /tmp/directory
253 ls
254 cd senjila
255 cd
256 ls
257 admin
258 ls
259 mkdir /tmp/directory
260 touch
261 touch aa
262 mv bb aa
263 mv aa bb
264 cat bb
265 test bb
266 head
267 test bb
268 vi bb
269 ls
270 mkdir cc
271 mkdir -p src/xxx
272 ls
273 rm cc
274 cd src
275 cd
276 ls
277 cd cc
278 cd
279 rm cc
280 ls
281 rmdir cc
282 ls
283 rm bb
284 history
root@localhost # ls _
```

10) Write shell scripts to create 10 users listed in userlist file with shell as /bin/false

```
3 echo "Invalid Argument."
4 elif [[ $1 == create ]]; then
5 for i in $(cat /home/shell/createu)
6 do
7 useradd -s /bin/false "$i"
8 done
9 else
10 echo "Invalid file name."
11 fi

Invalid Argument.

...Program finished with exit code 0
Press ENTER to exit console.
```

11) Write a Bash script to take backup of /etc/passwd file

program:

```
#!/bin/bash
echo Enter filename where to create backup:
read file
if [ -f $file ];
then cat /etc/passwd > "$file"
else tail -n5 /etc/paswd >> "$file" fi
```

output:

```
root@kali:~# cat 12th.sh
1 root:x11:root:/root:/bin/bash
2 daemon:x11:daemon:/usr/sbin:/usr/sbin/nologin
3 bin:x11:bin:/bin:/usr/sbin/nologin
4 sys:x11:sys:/dev:/usr/sbin/nologin
5 sync:x11:sync:/bin:/bin/sync
6 games:x11:games:/usr/games:/usr/sbin/nologin
7 man:x11:man:/var/cache/man:/usr/sbin/nologin
8 lp:x11:lp:/var/spool/lpd:/usr/sbin/nologin
9 news:x11:news:/var/mail:/usr/sbin/nologin
10 news:x11:news:/var/spool/news:/usr/sbin/nologin
11 uucp:x11:uucp:/var/spool/uucp:/usr/sbin/nologin
12 proxy:x11:proxy:/bin:/usr/sbin/nologin
13 www-data:x11:www-data:/var/www:/usr/sbin/nologin
14 backup:x11:backup:/var/backups:/usr/sbin/nologin
15 list:x11:0:0:0:0:0:0:/var/lib:/usr/sbin/nologin
16 ircd:x11:ircd:/var/run/ircd:/usr/sbin/nologin
17 gnats:x11:Gnats bug reporting system (admin):/var/lib/gnats:/usr/sbin/nologin
18 nobody:x11:0:0:0:0:0:0:/usr/sbin/nologin
19 _apt:x11:0:0:0:0:0:0:/usr/sbin/nologin
20 systemd-timesync:x11:0:0:0:0:0:0:/run/systemd:/usr/sbin/nologin
21 systemd-networkd:x11:0:0:0:0:0:0:/run/systemd:/usr/sbin/nologin
22 systemd-resolve:x11:0:0:0:0:0:0:/run/systemd:/usr/sbin/nologin
23 messagebus:x11:0:0:0:0:0:0:/usr/sbin/nologin
24 runner0:x11:0:0:0:0:0:0:/home/runner0:/bin/sh
25 runner1:x11:0:0:0:0:0:0:/home/runner1:/bin/sh
26 runner2:x11:0:0:0:0:0:0:/home/runner2:/bin/sh
27 runner3:x11:0:0:0:0:0:0:/home/runner3:/bin/sh
28 runner4:x11:0:0:0:0:0:0:/home/runner4:/bin/sh
29 runner5:x11:0:0:0:0:0:0:/home/runner5:/bin/sh
30 runner6:x11:0:0:0:0:0:0:/home/runner6:/bin/sh
31 runner7:x11:0:0:0:0:0:0:/home/runner7:/bin/sh
32 runner8:x11:0:0:0:0:0:0:/home/runner8:/bin/sh
33 runner9:x11:0:0:0:0:0:0:/home/runner9:/bin/sh
34 runner10:x11:0:0:0:0:0:0:/home/runner10:/bin/sh
35 runner11:x11:0:0:0:0:0:0:/home/runner11:/bin/sh
36 runner12:x11:0:0:0:0:0:0:/home/runner12:/bin/sh
37 runner13:x11:0:0:0:0:0:0:/home/runner13:/bin/sh
38 runner14:x11:0:0:0:0:0:0:/home/runner14:/bin/sh
39 runner15:x11:0:0:0:0:0:0:/home/runner15:/bin/sh
40 runner16:x11:0:0:0:0:0:0:/home/runner16:/bin/sh
41 runner17:x11:0:0:0:0:0:0:/home/runner17:/bin/sh
42 runner18:x11:0:0:0:0:0:0:/home/runner18:/bin/sh
43 runner19:x11:0:0:0:0:0:0:/home/runner19:/bin/sh
44 runner20:x11:0:0:0:0:0:0:/home/runner20:/bin/sh
45 runner21:x11:0:0:0:0:0:0:/home/runner21:/bin/sh
46 runner22:x11:0:0:0:0:0:0:/home/runner22:/bin/sh
47 runner23:x11:0:0:0:0:0:0:/home/runner23:/bin/sh
48 runner24:x11:0:0:0:0:0:0:/home/runner24:/bin/sh
49 runner25:x11:0:0:0:0:0:0:/home/runner25:/bin/sh
50 runner26:x11:0:0:0:0:0:0:/home/runner26:/bin/sh
51 runner27:x11:0:0:0:0:0:0:/home/runner27:/bin/sh
```

12) Write a bash scripts to print numbers from 1 to 100

program:

```
for (( i=1; i<=100; i++ ))
do
echo -n "$i "
done
echo ""
```

output:

```
senjila.sgdell-lhp-n77160:~$ cat > 12th.sh
senjila.sgdell-lhp-n77160:~$ chmod a+x 12th.sh
senjila.sgdell-lhp-n77160:~$ ./12th.sh
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 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
senjila.sgdell-lhp-n77160:~$
```

13) Write a bash script to print odd number

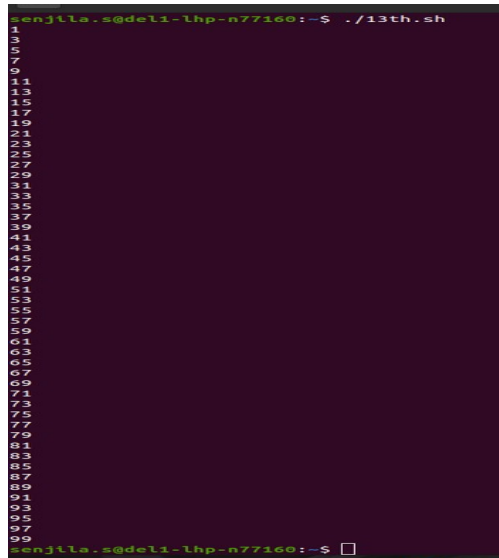
program:

```
#!/bin/bash
counter=1
while [ $counter -le 100 ]
```

```

do
    if [ $((($counter % 2)) != 0 ]
    then
        echo $counter
    fi
    ((counter++))
done
output:

```



```

senjila.s@deli-lhp-n77160:~$ ./13th.sh
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
33
35
37
39
41
43
45
47
49
51
53
55
57
59
61
63
65
67
69
71
73
75
77
79
81
83
85
87
89
91
93
95
97
99
senjila.s@deli-lhp-n77160:~$

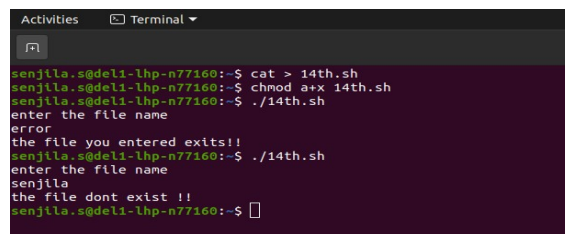
```

- 14) Write a bash script to check whether file Exists or not in current directory
 program:

```

echo enter the file name
read filename
if [ -f "$filename" ]
then
    echo the file you entered exists!!
else
    echo the file dont exist !!
fi

```



```

senjila.s@deli-lhp-n77160:~$ cat > 14th.sh
senjila.s@deli-lhp-n77160:~$ chmod a+x 14th.sh
senjila.s@deli-lhp-n77160:~$ ./14th.sh
enter the file name
error
the file you entered exists!!
senjila.s@deli-lhp-n77160:~$ ./14th.sh
enter the file name
senjila
the file dont exist !!
senjila.s@deli-lhp-n77160:~$

```

15)

Write a bash script to check whether number is less than, equal to or greater than 10

```
4
5  if [ $n -gt 10 ]
6  then
7      echo "greater"
8
9  elif [ $n -lt 10 ]
10 then
11     echo "less than"
12
13 else
14     echo "equal"
15 fi
```

56
greater

...Program finished with exit code 0
Press ENTER to exit console.