

11.[task1]-List Linux commands in /usr/bin that start with letter w.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ ls /usr/bin/w*
/usr/bin/w          /usr/bin/wdctl    /usr/bin/which.debianutils /usr/bin/whoopsie-preferences /usr/bin/wpexec
/usr/bin/wall       /usr/bin/wget     /usr/bin/whiptail          /usr/bin/wireplumber         /usr/bin/write
/usr/bin/watch      /usr/bin/whatis   /usr/bin/who               /usr/bin/word-list-compress
/usr/bin/watchnupg  /usr/bin/whereis  /usr/bin/whoami            /usr/bin/wpa_passphrase
/usr/bin/wc         /usr/bin/which    /usr/bin/whoopsie         /usr/bin/wpctl
```

9. Create a user account with the following attribute.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo useradd -c "Islam Askar" islam
[sudo] password for abdelrahman-abdelhady:
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ passwd islam
passwd: You may not view or modify password information for islam.
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo passwd islam
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ ls /home
abdelrahman-abdelhady
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ tail -1 /etc/passwd
islam:x:1001:1001:Islam Askar:/home/islam:/bin/sh
```

10. Create a user account with the following attribute.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo useradd -c "Bad User" baduser
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo passwd baduser
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: password updated successfully
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ tail -1 /etc/passwd
baduser:x:1002:1002:Bad User:/home/baduser:/bin/sh
```

11. Create a supplementary (Secondary) group called pgroup with group ID of 30000.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo groupadd -g 30000 pgroup
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$
```

12. Create a supplementary group called badgroup.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo groupadd badgroup
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$
```

13. Add islam user to the pgroup group as a supplementary group.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo usermod -G pgroup islam
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$
```

14. Modify the password of islam's account to password.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo passwd islam
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: password updated successfully
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$
```

15. Modify islam's account so the password expires after 30 days.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo chage -M 30 islam
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo chage -l islam
Last password change           : Jun 24, 2024
Password expires                : Jul 24, 2024
Password inactive               : never
Account expires                 : never
Minimum number of days between password change : 0
Maximum number of days between password change : 30
Number of days of warning before password expires : 7
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$
```

16. Lock bad user account so he can't log in.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo usermod -L baduser
```

17. Delete bad user account.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo userdel -r baduser
```

18. Delete the supplementary group called badgroup.

```
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo groupdel badgroup
```

19. Which file system has the most free disk space on your machine.

```

abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ df -h

```

Filesystem	Size	Used	Avail	Use%	Mounted on
tmpfs	775M	2.4M	773M	1%	/run
/dev/sda6	49G	14G	33G	30%	/
tmpfs	3.8G	4.0K	3.8G	1%	/dev/shm
tmpfs	5.0M	8.0K	5.0M	1%	/run/lock
efivarfs	256K	123K	128K	50%	/sys/firmware/efi/efivars
/dev/sda3	96M	68M	29M	70%	/boot/efi
tmpfs	775M	2.6M	773M	1%	/run/user/1000

20. Which top level directory n / uses the most space on your machine.

```

abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo du -h --max-depth=1 / | sort -rh

```

```

du: cannot read directory '/proc/5204/task/5204/net': Invalid argument
du: cannot access '/proc/13604/task/13604/fd/4': No such file or directory
du: cannot access '/proc/13604/task/13604/fdinfo/4': No such file or directory
du: cannot access '/proc/13604/fd/3': No such file or directory
du: cannot access '/proc/13604/fdinfo/3': No such file or directory
du: cannot access '/run/user/1000/doc': Permission denied
du: cannot access '/run/user/1000/gvfs': Permission denied
22G      /
7.6G     /snap
4.8G     /usr
3.2G     /var
2.0G     /home
162M     /boot
12M      /etc
4.9M     /run
328K     /tmp
84K      /root
16K      /lost+found
8.0K     /media
4.0K     /srv
4.0K     /sbin.usr-is-merged
4.0K     /opt
4.0K     /mnt
4.0K     /lib.usr-is-merged
4.0K     /cdrom
4.0K     /bin.usr-is-merged
0        /sys
0        /proc
0        /dev

```

21. Which top level directory in /home uses the least space on your machine.

```

abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$ sudo du -h --max-depth=1 /home

```

```

2.0G     /home/abdelrahman-abdelhady
2.0G     /home
abdelrahman-abdelhady@abdelrahman-abdelhady-HP-Laptop-15-da2xxx:~/Desktop$

```