



Linux Essentials Workshop-2

Clarusway



Subject: Linux Basic Shell Commands

Learning Goals

- Practice using the linux basic shell commands.

Introduction

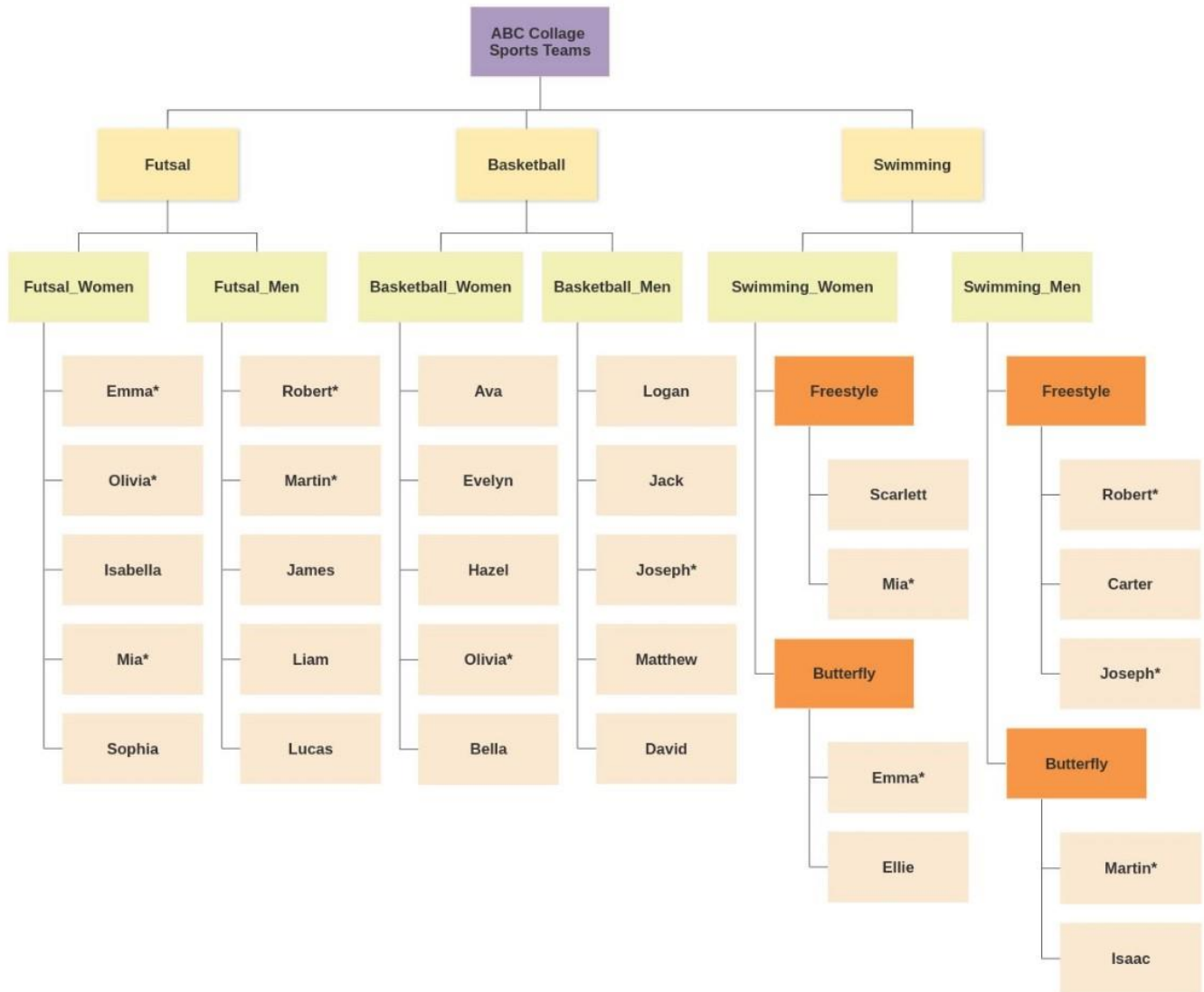
We've covered a lot of Linux concepts, but now it's time to put the concepts in to practice. We'll start with basic shell commands.

Practice Using the **Bash Shell** in Lesson

You might notice a few new things in this lesson that you haven't encountered before. We'll walk you through them.

Coding Challenge's Story

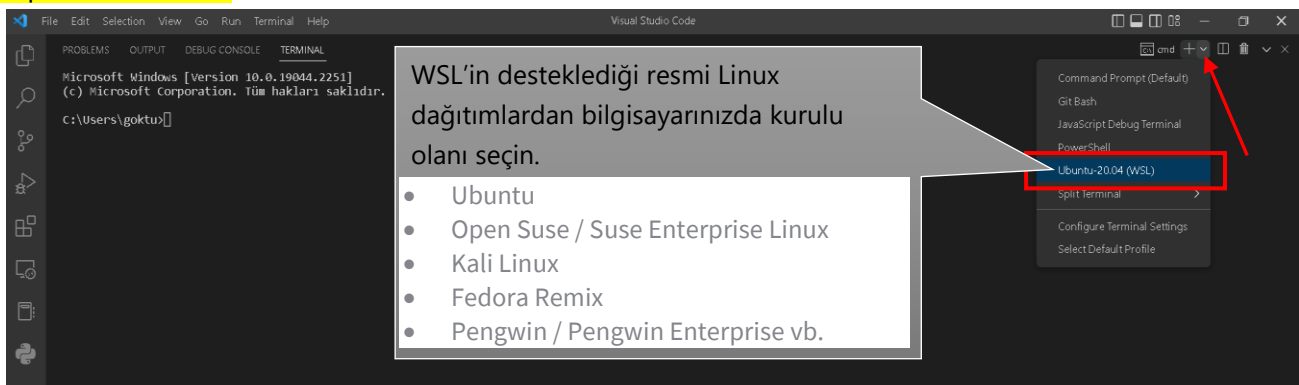
A college named ABC in the USA has sport teams. The college administrators want to arrange their students who do sports in teams in a file hierarchy. The administration couldn't solve this problem and they came to you because you are an IT specialist. The college has three sport teams. Each team is divided into men and women. However, they want only administrators to have access to some students' private information.



Code Along

Part 1 - Basic Commands 1/2

1. Open the terminal



```

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

goktu@DESKTOP-AMTVT23:/mnt/c/Users/goktu$ cd
goktu@DESKTOP-AMTVT23:~$ cd .ssh
goktu@DESKTOP-AMTVT23:~/.ssh$ ls -l
total 20
-rw-r--r-- 1 goktu goktu 1679 Nov 19 03:22 em_key.pem
-rw-r--r-- 1 goktu goktu 1679 Nov 26 15:16 em_key1.pem
-rw-r--r-- 1 goktu goktu 8436 Nov 27 22:15 known_hosts
goktu@DESKTOP-AMTVT23:~/.ssh$ ssh -i "em_key.pem" ubuntu@ec2-3-80-97-136.compute-1.amazonaws.com
Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 5.15.0-1023-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun Nov 27 20:25:34 UTC 2022

System load: 0.0          Processes: 98
Usage of /: 28.6% of 7.57GB Users logged in: 0
Memory usage: 21%        IPv4 address for eth0: 172.31.19.194
Swap usage: 0%

 * Ubuntu Pro delivers the most comprehensive open source security and
   compliance features.

https://ubuntu.com/aws/pro

38 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Last login: Sun Nov 27 19:15:55 2022 from 88.249.165
ubuntu@ip-172-31-19-194:~$

```

2. To know which directory you are in, you can use the "pwd" command.

```
ubuntu@ip-172-31-19-194:~$
```

```
pwd
```

```
/home/ubuntu
```

3. Create a directory named "ABC_College" in user's home directory.

```
ubuntu@ip-172-31-19-194:~$
```

```
mkdir ABC_College
```

4. Go into "ABC_College" directory.

```
ubuntu@ip-172-31-19-194:~$
```

```
cd ABC_College
```

5. List all the files/folders with details in ABC_College directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College$
```

```
ls -l
```

```
total 0
```

6. Create folders named "Futsal", "Basketball" and "Swimming".

```
ubuntu@ip-172-31-19-194:~/ABC_College$
```

```
mkdir Futsal Basketball Swimming
```

7. Go into "Futsal" directory and list content of the directory with details and hidden files.

```
ubuntu@ip-172-31-19-194:~/ABC_College$
```

```
cd Futsal ; ls -al
```

```
total 8
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 27 21:24 .
```

```
drwxrwxr-x 5 ubuntu ubuntu 4096 Nov 27 21:24 ..
```

8. Create folders named "Futsal_Women" and "Futsal_Men" after that list the content of "Futsal".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal$
```

```
mkdir Futsal_Women Futsal_Men ; ls
```

```
Futsal_Men  Futsal_Women
```

9. Go into "Basketball" directory from inside "Futsal" directory and list content of "Basketball" directory with details and hidden files.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball$
```

```
cd ../Basketball ; ls -al
```

```
total 8
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 27 21:24 .
```

```
drwxrwxr-x 5 ubuntu ubuntu 4096 Nov 27 21:24 ..
```

10. Create folders named "Basketball_Women" and "Basketball_Men" after that list the content of "Basketball".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball$
```

```
mkdir Basketball_Women Basketball_Men ; ls -l
```

```
total 8
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 27 21:42 Basketball_Men
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 27 21:42 Basketball_Women
```

11. Go into "Swimming" directory from inside "Basketball" directory and list content of "Swimming" directory with details and hidden files.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball$
```

```
cd ../Swimming ; ls -al
```

```
total 8
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 27 21:24 .
```

```
drwxrwxr-x 5 ubuntu ubuntu 4096 Nov 27 21:24 ..
```

12. Create folders named "Swimming_Women" and "Swimming_Men" after that list the content of "Swimming".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming$
```

```
mkdir Swimming_Women Swimming_Men ; ls -l
```

```
total 8
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 27 21:46 Swimming_Men
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 27 21:46 Swimming_Women
```

13. Print and check the path of the directory you are in.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming$
```

```
pwd
```

```
/home/ubuntu/ABC_College/Swimming
```

14. Go into "Swimming_Women" directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming$
```

```
cd Swimming_Women
```

15. Create folders named "Freestyle" and "Butterfly" in "Swimming_Women".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women$  
mkdir Freestyle Butterfly
```

16. Go into "Swimming_Men" directory from inside "Swimming_Women" directory.

17. Create folders named "Freestyle" and "Butterfly" in "Swimming_Men".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women$  
cd ../Swimming_Men && mkdir Freestyle Butterfly  
cd ../Swimming_Men ; mkdir Freestyle Butterfly
```

Both are the same commands.
You may choose one.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men$
```

```
ls  
Butterfly Freestyle
```

18. Go into "Futsal_Women" directory again from inside "Swimming_Men" directory and list the content of "Futsal_Women".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men$  
cd ../../Futsal/Futsal_Women ; ls -l  
total 0
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
pwd  
/home/ubuntu/ABC_College/Futsal/Futsal_Women
```

19. Create 5 files named "Emma", "Olivia", "Isabella", "Mia", "Sophia" inside "Futsal_Women".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
touch Emma Olivia Isabella Mia Sophia  
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
ls  
Emma Isabella Mia Olivia Sophia
```

20. Write the students' informations using "echo" command into the files according to the table given below

Student Name	Information
Emma	Futsal_Goalkeeper
Olivia	Futsal_Defender
Isabella	Futsal_Winger
Mia	Futsal_Winger
Sophia	Futsal_Pivot

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
echo "Futsal_Goalkeeper" > Emma ; cat Emma  
Futsal_Goalkeeper
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$
```

```
echo "Futsal_Defender" > Olivia ; cat Olivia
```

```
Futsal_Defender
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$
```

```
echo "Futsal_Winger" > Isabella ; cat Isabella
```

```
Futsal_Winger
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$
```

```
echo "Futsal_Winger" > Mia ; cat Mia
```

```
Futsal_Winger
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$
```

```
echo "Futsal_Pivot" > Sophia ; cat Sophia
```

```
Futsal_Pivot
```

21. Isabella's information is read and write (rw-) only the user and user's group (not the others).

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$
```

```
chmod 660 Isabella ; ls -l
```

```
total 16
```

```
-rw-rw-r-- 1 ubuntu ubuntu 18 Nov 27 22:49 Emma
```

```
-rw-rw---- 1 ubuntu ubuntu 0 Nov 27 22:55 Isabella
```

```
-rw-rw-r-- 1 ubuntu ubuntu 14 Nov 27 22:55 Mia
```

```
-rw-rw-r-- 1 ubuntu ubuntu 16 Nov 27 22:51 Olivia
```

```
-rw-rw-r-- 1 ubuntu ubuntu 13 Nov 27 22:57 Sophia
```

22. Go into "Futsal_Men" directory and list the content of it.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$
```

```
cd ../Futsal_Men ; ls -l
```

```
total 0
```

23. Create 5 files named "Robert", "Martin", "James", "Liam", "Lucas" inside "Futsal_Men".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

```
touch Robert Martin James Liam Lucas ; ls
```

```
James Liam Lucas Martin Robert
```

24. Write the students' informations using "vim" command into the files according to the table given below

Student Name	Information
Robert	Futsal_Goalkeeper
Martin	Futsal_Defender
James	Futsal_Winger
Liam	Futsal_Winger
Lucas	Futsal_Pivot

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

```
vim Robert ; cat Robert
```

```
Futsal_Goalkeeper
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

```
vim Martin ; cat Martin
```

```
Futsal_Defender
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

```
vim James ; cat James
```

```
Futsal_Winger
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

```
vim Liam ; cat Liam
```

```
Futsal_Winger
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

```
vim Lucas ; cat Lucas
```

```
Futsal_Pivot
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

25. Martin's information is read and write (rw-) only the user (not the groups and the others).

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

```
chmod 600 Martin ; ls -l
```

```
total 20
```

```
-rw-rw-r-- 1 ubuntu ubuntu 14 Nov 27 23:19 James
```

```
-rw-rw-r-- 1 ubuntu ubuntu 14 Nov 27 23:19 Liam
```

```
-rw-rw-r-- 1 ubuntu ubuntu 13 Nov 27 23:20 Lucas
```

```
-rw----- 1 ubuntu ubuntu 16 Nov 27 23:18 Martin
```

```
-rw-rw-r-- 1 ubuntu ubuntu 18 Nov 27 23:17 Robert
```

26. Go into "Basketball_Women" directory again from inside "Futsal_Men" directory and list the content of "Basketball_Women".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$
```

```
cd ../../Basketball/Basketball_Women && ls -l
```

```
total 0
```

27. Create 4 files named "Ava", "Evelyn", "Hazel", "Bella" inside "Basketball_Women".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
touch Ava Evelyn Hazel Belle ; ls
```

```
Ava Belle Evelyn Hazel
```

28. Write the students' informations using "nano" command into the files according to the table given below

Student Name	Information
Ava	Basketball_Point-Guard
Evelyn	Basketball_Shooting-Guard
Hazel	Basketball_Center
Bella	Basketball_Small-Forward

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
nano Evelyn ; cat Evelyn
```

```
Basketball_Shooting-Guard
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
nano Hazel ; cat Hazel
```

```
Basketball_Center
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
nano Belle ; cat Belle
```

```
Basketball_Small-Forward
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

29. Olivia plays in two teams Futsal and Basketball. Append "Basketball_Power-Forward" line into Olivia's information file inside "Futsal_Women" without overwrite using echo command and absolute path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
echo "Basketball_Power-Forward" >> ~/ABC_College/Futsal/Futsal_Women/Olivia
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
cat ../../Futsal/Futsal_Women/Olivia
```

```
Futsal_Defender
```

```
Basketball_Power-Forward
```

30. Get Olivia's information file from inside "Futsal_Women" directory using "cp" command and relative path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
cp ../../Futsal/Futsal_Women/Olivia ./ ; ls
```

```
Ava Belle Evelyn Hazel Olivia
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
cat Olivia
```

```
Futsal_Defender
```

```
Basketball_Power-Forward
```

31. List the content of current directory with details and hidden files.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
ls -al
```

```
total 28
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 27 23:57 .
```

```
drwxrwxr-x 4 ubuntu ubuntu 4096 Nov 27 21:42 ..
```

```
-rw-rw-r-- 1 ubuntu ubuntu 23 Nov 27 23:35 Ava
```

```
-rw-rw-r-- 1 ubuntu ubuntu 25 Nov 27 23:37 Belle
```

```
-rw-rw-r-- 1 ubuntu ubuntu 26 Nov 27 23:36 Evelyn
```

```
-rw-rw-r-- 1 ubuntu ubuntu 18 Nov 27 23:36 Hazel
```

```
-rw-rw-r-- 1 ubuntu ubuntu 41 Nov 27 23:57 Olivia
```

32. Go into "Basketball_Men" directory using "~" (tilde).

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
cd ~/ABC_College/Basketball/Basketball_Men ; pwd
```

```
/home/ubuntu/ABC_College/Basketball/Basketball_Men
```


33. Create 5 files named "Logan", "Jack", "Joseph", "Matthew", "David" inside "Basketball_Men".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
```

```
touch Logan Jack Joseph Matthew David ; ls
```

```
David Jack Joseph Logan Matthew
```

34. Write the students' informations using "echo" command into the files according to the table given below

Student Name	Information
Logan	Basketball_Point-Guard
Jack	Basketball_Shooting-Guard
Joseph	Basketball_Center
Matthew	Basketball_Power-Forward
David	Basketball_Small-Forward

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
```

```
echo "Basketball_Point-Guard" > Logan ; cat Logan
```

```
Basketball_Point-Guard
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
```

```
echo "Basketball_Shooting-Guard" > Jack ; cat Jack
```

```
Basketball_Shooting-Guard
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
```

```
echo "Basketball_Center" > Joseph ; cat Joseph
```

```
Basketball_Center
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
```

```
echo "Basketball_Power-Forward" > Matthew ; cat Matthew
```

```
Basketball_Power-Forward
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
```

```
echo "Basketball_Small-Forward" > David ; cat David
```

```
Basketball_Small-Forward
```

35. List the content of current directory with details and hidden files.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
```

```
ls -al
```

```
total 28
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Nov 28 00:16 .
```

```
drwxrwxr-x 4 ubuntu ubuntu 4096 Nov 27 21:42 ..
```

```
-rw-rw-r-- 1 ubuntu ubuntu 25 Nov 28 00:20 David
```

```
-rw-rw-r-- 1 ubuntu ubuntu 26 Nov 28 00:19 Jack
```

```
-rw-rw-r-- 1 ubuntu ubuntu 18 Nov 28 00:19 Joseph
```

```
-rw-rw-r-- 1 ubuntu ubuntu 23 Nov 28 00:18 Logan
```

```
-rw-rw-r-- 1 ubuntu ubuntu 25 Nov 28 00:20 Matthew
```

36. David's information is read-only (r--) for everyone.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
```

```
chmod 444 David ; ls -l
```

```
total 20
```

```
-r--r--r-- 1 ubuntu ubuntu 25 Nov 28 00:20 David
-rw-rw-r-- 1 ubuntu ubuntu 26 Nov 28 00:19 Jack
-rw-rw-r-- 1 ubuntu ubuntu 18 Nov 28 00:19 Joseph
-rw-rw-r-- 1 ubuntu ubuntu 23 Nov 28 00:18 Logan
-rw-rw-r-- 1 ubuntu ubuntu 25 Nov 28 00:20 Matthew
```

37. Go into "Swimming_Women/Freestyle" directory using relative path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Men$
cd ../../Swimming/Swimming_Women/Freestyle ; pwd
/home/ubuntu/ABC_College/Swimming/Swimming_Women/Freestyle
```

38. Create a file named "Scarlett" and write "Swimming_Freestyle" into the file.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Freestyle$
echo "Swimming_Freestyle" > Scarlet ; ls ; cat Scarlet
Scarlet
Swimming_Freestyle
```

39. Mia plays in two teams Futsall and Swimming. Append "Swimming_Freestyle" line into Mia's informationfile inside "Futsal_Women" without overwrite using echo command and absolute path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Freestyle$
echo "Swimming_Freestyle" >> ~/ABC_College/Futsal/Futsal_Women/Mia ; cat
~/ABC_College/Futsal/Futsal_Women/Mia
Futsal_Winger
Swimming_Freestyle
```

40. Get Mia's information file from inside "Futsal_Women" directory using "cp" command and absolute path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Freestyle$ cp
~/ABC_College/Futsal/Futsal_Women/Mia ./ ; ls
Mia Scarlet
```

41. Go into "Butterfly" directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Freestyle$
cd ../Butterfly/
```

42. Create a file named "Ellie" and write "Swimming_Butterfly" into the file.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Butterfly$
echo "Swimming_Butterfly" > Ellie ; ls ; cat Ellie
Ellie
Swimming_Buterfly
```

Emma plays in two teams Futsall and Swimming. Append "Swimming_Butterfly" line into Emma's information file inside "Futsal_Women" without overwrite using echo command and absolute path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Butterfly$
echo "Swimming_Butterfly" >> ~/ABC_College/Futsal/Futsal_Women/Emma
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Butterfly$
cat ~/ABC_College/Futsal/Futsal_Women/Emma
```

```
Futsal_Goalkeeper
Swimming_Butterfly
```

43. Get Emma's information file from inside "Futsal_Women" directory using "cp" command and absolute path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Butterfly$
cp ~/ABC_College/Futsal/Futsal_Women/Emma ./ ; ls
Ellie Emma
```

44. Go into "Swimming_Men/Freestyle" directory using relative path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Women/Butterfly$
cd ../../Swimming_Men/Freestyle
```

45. Create a file named "Carter" using only "echo" command and write into the file "Swimming_Freestyle".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$
echo "Swimming_Freestyle" > Carter ; ls ; cat Carter
Carter
Swimming_Freestyle
```

46. Robert in Futsal and Joseph in Basketball play in Swimming Team also. Append "Swimming_Freestyle" line into the information files inside "Futsal_Men" and "Basketball_Men" without overwrite using echo command and absolute path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$
echo "Swimming_Freestyle" >> ~/ABC_College/Futsal/Futsal_Men/Robert
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$
cat ~/ABC_College/Futsal/Futsal_Men/Robert
Futsal_Goalkeeper
Swimming_Freestyle
```

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$
echo "Swimming_Freestyle" >> ~/ABC_College/Basketball/Basketball_Men/Joseph
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$
cat ~/ABC_College/Basketball/Basketball_Men/Joseph
Basketball_Center
Swimming_Freestyle
```

47. Get Robert and Joseph's information file from inside "Futsal_Men" and "Basketball_Men" directories using "cp" command and absolute path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$
cp ~/ABC_College/Futsal/Futsal_Men/Robert ./
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$
cp ~/ABC_College/Basketball/Basketball_Men/Joseph ./
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$
ls -l
total 12
-rw-rw-r-- 1 ubuntu ubuntu 19 Nov 28 09:22 Carter
-rw-rw-r-- 1 ubuntu ubuntu 37 Nov 28 15:48 Joseph
-rw-rw-r-- 1 ubuntu ubuntu 37 Nov 28 15:47 Robert
```

48. Go into "Swimming_Men/Butterfly" directory using relative path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Freestyle$  
cd ../Butterfly
```

49. Create a file named "Isaac" using echo command and write into the file "Swimming_Butterfly".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Butterfly$  
echo "Swimming_Butterfly" > Isaac ; cat Isaac  
Swimming_Butterfly
```

50. Isaac's information is read, write and executable (rwx) for only the group.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Butterfly$  
chmod 070 Isaac ; ls -l  
total 4  
----rwx--- 1 ubuntu ubuntu 19 Nov 28 15:54 Isaac
```

51. Martin plays in two teams Futsall and Swimming. Append "Swimming_Butterfly" line into Martin's information file inside "Futsal_Men" without overwrite using echo command and absolute path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Butterfly$  
echo "Swimming_Butterfly" >> ~/ABC_College/Futsal/Futsal_Men/Martin ;  
cat ~/ABC_College/Futsal/Futsal_Men/Martin  
Futsal_Defender  
Swimming_Butterfly
```

52. Get Martin's information file from inside "Futsal_Men" directory using "cp" command and relative path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Butterfly$  
cp ~/ABC_College/Futsal/Futsal_Men/Martin ./ ; ls -l  
total 8  
----rwx--- 1 ubuntu ubuntu 19 Nov 28 15:54 Isaac  
-rw----- 1 ubuntu ubuntu 35 Nov 28 16:07 Martin
```

53. Go into ABC_College directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Swimming/Swimming_Men/Butterfly$  
cd ~/ABC_College/
```

54. Install "tree" command via packet manager. Required code is below.

For Ubuntu:

```
sudo apt update  
sudo apt install tree -v
```

For CentOS:

```
sudo yum update  
sudo yum install tree -v
```

55. Run the command below.

```
tree
```

ubuntu@ip-172-31-19-194:~/ABC_College\$

tree

```
├── Basketball
│   ├── Basketball_Men
│   │   ├── David
│   │   ├── Jack
│   │   ├── Joseph
│   │   ├── Logan
│   │   └── Matthew
│   └── Basketball_Women
│       ├── Ava
│       ├── Belle
│       ├── Evelyn
│       ├── Hazel
│       └── Olivia
├── Futsal
│   ├── Futsal_Men
│   │   ├── James
│   │   ├── Liam
│   │   ├── Lucas
│   │   ├── Martin
│   │   └── Robert
│   └── Futsal_Women
│       ├── Emma
│       ├── Isabella
│       ├── Mia
│       ├── Olivia
│       └── Sophia
└── Swimming
    ├── Swimming_Men
    │   ├── Butterfly
    │   │   ├── Isaac
    │   │   └── Martin
    │   └── Freestyle
    │       ├── Carter
    │       ├── Joseph
    │       └── Robert
    └── Swimming_Women
        ├── Butterfly
        │   ├── Ellie
        │   └── Emma
        └── Freestyle
            ├── Mia
            └── Scarlet
```

13 directories, 29 files

Part 2 - Basic Commands 2/2

1. The administration reported that Sophia in Futsal Women's Team left from the team. Go into the "Futsal_Women" directory and remove Sofia from there.

```
ubuntu@ip-172-31-19-194:~/ABC_College$
```

```
rm ~/ABC_College/Futsal/Futsal_Women/Sophia
```

2. The administration reported that Mia in Futsal Women's Team left from the team and she joined BasketballWomen's team. Move Mia's file into "Basketball_Women" directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College$
```

```
mv ~/ABC_College/Futsal/Futsal_Women/Mia ~/ABC_College/Basketball/Basketball_Women/
```

3. Go into Basketball_Women directory and list content of it with details and hidden files.

```
ubuntu@ip-172-31-19-194:~/ABC_College$
```

```
cd ~/ABC_College/Basketball/Basketball_Women ; ls -al
```

```
total 32
```

```
drwxrwxr-x 2 ubuntu ubuntu 4096 Dec  3 20:36 .
```

```
drwxrwxr-x 4 ubuntu ubuntu 4096 Nov 27 21:42 ..
```

```
-rw-rw-r-- 1 ubuntu ubuntu  23 Nov 27 23:35 Ava
```

```
-rw-rw-r-- 1 ubuntu ubuntu  25 Nov 27 23:37 Belle
```

```
-rw-rw-r-- 1 ubuntu ubuntu  26 Nov 27 23:36 Evelyn
```

```
-rw-rw-r-- 1 ubuntu ubuntu  18 Nov 27 23:36 Hazel
```

```
-rw-rw-r-- 1 ubuntu ubuntu  33 Nov 28 08:52 Mia
```

```
-rw-rw-r-- 1 ubuntu ubuntu  41 Nov 27 23:57 Olivia
```

4. Change the content of Mia's file by adding "Basketball_Small-Forward" and removing "Futsal_Winger" using vim editor.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
vim Mia ; cat Mia
```

```
Swimming_Freestyle
```

```
Basketball_Small-Forward
```

5. Print working directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
pwd
```

```
/home/ubuntu/ABC_College/Basketball/Basketball_Women
```

6. Move Ellie from Swimming Team to Futsal Women team as Futsal Winger without left current directory and use absolute paths.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
mv ~/ABC_College/Swimming/Swimming_Women/Butterfly/Elle ~/ABC_College/Futsal/Futsal_Women
```

7. Go into "Futsal_Women" directory using relative path.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$
```

```
cd ../../Futsal/Futsal_Women/ ; pwd
```

```
/home/ubuntu/ABC_College/Futsal/Futsal_Women
```

8. Change the content of Ellie's file by adding "Futsal_Winger" and removing "Swimming_Butterfly" using nanoeditor.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
nano Ellie ; cat Ellie  
Futsal_Winger
```

9. Scarlett in Swimming Team wants to play Futsal as a Pivot also. You append "Futsal_Pivot" into Scarlett's file using echo command.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
echo "Futsal_Pivot" >> ~/ABC_College/Swimming/Swimming_Women/Freestyle/Scarlet  
  
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
cat ~/ABC_College/Swimming/Swimming_Women/Freestyle/Scarlet  
Swimming_Freestyle  
Futsal_Pivot
```

10. Copy Scarlett's file into "Futsal_Women" directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
cp ~/ABC_College/Swimming/Swimming_Women/Freestyle/Scarlet ./ ; ls  
Ellie Emma Isabella Olivia Scarlet
```

11. Reach Martin's file in Futsal_Men and read it.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
cat ../Futsal_Men/Martin  
Futsal_Defender  
Swimming_Butterfly
```

12. Go into Futsal_Men directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Women$  
cd ../Futsal_Men/
```

13. Print working directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$  
pwd  
/home/ubuntu/ABC_College/Futsal/Futsal_Men
```

14. List students in Futsal Men Team whose names begin with the letter "L".

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$  
ls L*  
Liam Lucas
```

15. List students in Futsal Men Team who have the letter "m" in their name.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$  
ls *m* *M*  
James Liam Martin
```

16. Go into "Basketball_Women" directory using ~ (tilde).

```
ubuntu@ip-172-31-19-194:~/ABC_College/Futsal/Futsal_Men$  
cd ~/ABC_College/Basketball/Basketball_Women/
```

16. You noticed that you wrote the name of Eve in the basketball team as Ava. Correct the name of Eve.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$  
mv Ava Eve ; ls  
Belle Eve Evelyn Hazel Mia Olivia
```

17. List the content of current directory with details and hidden files.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$  
ls -al  
total 32  
drwxrwxr-x 2 ubuntu ubuntu 4096 Dec  3 21:37 .  
drwxrwxr-x 4 ubuntu ubuntu 4096 Nov 27 21:42 ..  
-rw-rw-r-- 1 ubuntu ubuntu  25 Nov 27 23:37 Belle  
-rw-rw-r-- 1 ubuntu ubuntu  23 Nov 27 23:35 Eve  
-rw-rw-r-- 1 ubuntu ubuntu  26 Nov 27 23:36 Evelyn  
-rw-rw-r-- 1 ubuntu ubuntu  18 Nov 27 23:36 Hazel  
-rw-rw-r-- 1 ubuntu ubuntu  44 Dec  3 20:41 Mia  
-rw-rw-r-- 1 ubuntu ubuntu  41 Nov 27 23:57 Olivia
```

18. Use tree command in ABC_College directory.

```
ubuntu@ip-172-31-19-194:~/ABC_College/Basketball/Basketball_Women$  
tree ~/ABC_College/  
/home/ubuntu/ABC_College/  
├── Basketball  
│   ├── Basketball_Men  
│   │   ├── David  
│   │   ├── Jack  
│   │   ├── Joseph  
│   │   ├── Logan  
│   │   └── Matthew  
│   └── Basketball_Women  
│       ├── Belle  
│       ├── Eve  
│       ├── Evelyn  
│       ├── Hazel  
│       ├── Mia  
│       └── Olivia  
└── Futsal  
    ├── Futsal_Men  
    │   ├── James  
    │   ├── Liam  
    │   ├── Lucas  
    │   └── Martin
```



```
| | └─ Robert
| └─ Futsal_Women
|   └─ Ellie
|   └─ Emma
|   └─ Isabella
|   └─ Olivia
|   └─ Scarlet
└─ Swimming
    └─ Swimming_Men
        └─ Butterfly
            └─ Isaac
            └─ Martin
        └─ Freestyle
            └─ Carter
            └─ Joseph
            └─ Robert
    └─ Swimming_Women
        └─ Butterfly
            └─ Emma
        └─ Freestyle
            └─ Mia
            └─ Scarlet
```

13 directories, 29 files

19. Attention please! Finally, remove ABC_College directory.

```
ubuntu@ip-172-31-19-194:~$
```

```
rm -rf ABC_College ; ls
```

20. Exit from the terminal

```
ubuntu@ip-172-31-19-194:~$
```

```
exit
```

```
logout
```

```
Connection to ec2-34-224-75-90.compute-1.amazonaws.com closed.
```

😊 Thanks for Attending 📌

Clarusway

