



Linux Essentials Workshop-2

Clarusway



Subject: Linux Basic Shell Commands

Learning Goals

- Practice using the linux basic shell commands.

Introduction

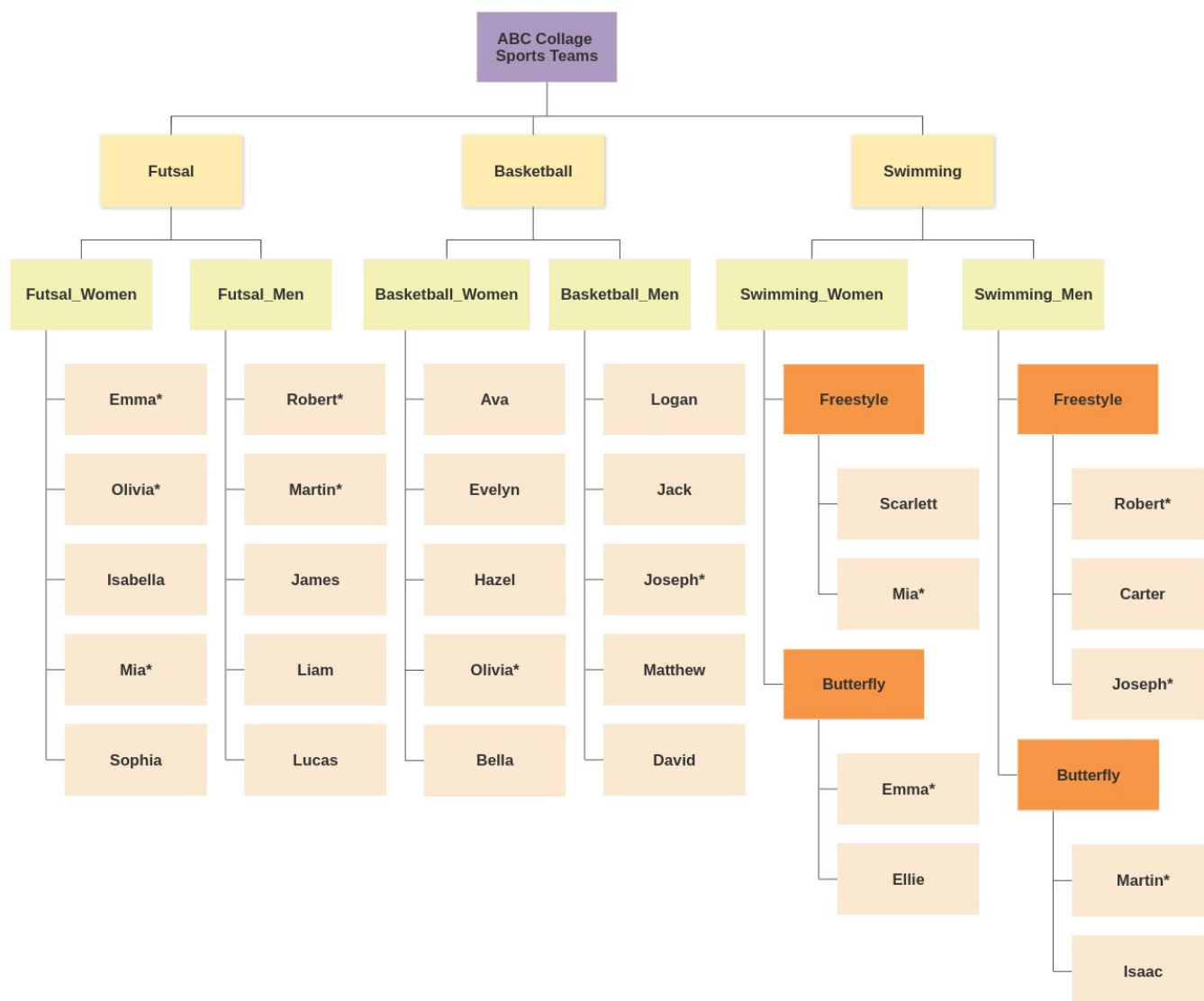
We've covered a lot of Linux concepts, but now it's time to put the concepts in to practice. We'll start with basic shell commands.

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
2. To know which directory you are in, you can use the "pwd" command.
3. Create a directory named "ABC_College" in user's home directory.
4. Go into "ABC_College" directory.
5. List all the files/folders with details in ABC_College directory.
6. Create folders named "Futsal", "Basketball" and "Swimming".
7. Go into "Futsal" directory and list content of the directory with details and hidden files.
8. Create folders named "Futsal_Women" and "Futsal_Men" after that list the content of "Futsal".
9. Go into "Basketball" directory from inside "Futsal" directory and list content of "Basketball" directory with details and hidden files.
10. Create folders named "Basketball_Women" and "Basketball_Men" after that list the content of "Basketball".

11. Go into "Swimming" directory from inside "Basketball" directory and list content of "Swimming" directory with details and hidden files.
12. Create folders named "Swimming_Women" and "Swimming_Men" after that list the content of "Swimming".
13. Print and check the path of the directory you are in.
14. Go into "Swimming_Women" directory.
15. Create folders named "Freestyle" and "Butterfly" in "Swimming_Women".
16. Go into "Swimming_Men" directory from inside "Swimming_Women" directory.
17. Create folders named "Freestyle" and "Butterfly" in "Swimming_Men".
18. Go into "Futsal_Women" directory again from inside "Swimming_Men" directory and list the content of "Futsal_Women".
19. Create 5 files named "Emma", "Olivia", "Isabella", "Mia", "Sophia" inside "Futsal_Women".
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

21. Isabella's information is read and write (rw-) only the user and user's group (not the others).
22. Go into "Futsal_Men" directory and list the content of it.
23. Create 5 files named "Robert", "Martin", "James", "Liam", "Lucas" inside "Futsal_Men".
24. Write the students' informations using "echo" 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

25. Martin's information is read and write (rw-) only the user (not the groups and the others).
26. Go into "Basketball_Women" directory again from inside "Futsal_Men" directory and list the content of "Basketball_Women".
27. Create 4 files named "Ava", "Evelyn", "Hazel", "Bella" inside "Basketball_Women".
28. Write the students' informations using "echo" command into the files according to the table given below

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

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

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

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

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

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

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

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

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

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

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

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

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

41. Go into "Butterfly" directory.

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

43. 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.

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

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

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

47. 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.

48. Get Robert and Joseph's information file from inside "Futsal_Men" and "Basketball_Men" directories using "cp" command and absolute path.
49. Go into "Swimming_Men/Butterfly" directory using relative path.
50. Create a file named "Isaac" using echo command and write into the file "Swimming_Butterfly".
51. Isaac's information is read, write and executable (rwx) for only the group.
52. Martin plays in two teams Futsal and Swimming. Append "Swimming_Butterfly" line into Martin's information file inside "Futsal_Men" without overwrite using echo command and absolute path.
53. Get Martin's information file from inside "Futsal_Men" directory using "cp" command and relative path.
54. Go into ABC_College directory.
55. Install "tree" command via packet manager. Required code is below.

For Ubuntu:

```
sudo apt update
sudo apt install tree -y
```

For CentOS:

```
sudo yum update
sudo yum install tree -y
```

56. Run the command below.

```
tree
```

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.
2. The administration reported that Mia in Futsal Women's Team left from the team and she joined Basketball Women's team. Move Mia's file into "Basketball_Women" directory.
3. Go into Basketball_Women directory and list content of it with details and hidden files.
4. Change the content of Mia's file by adding "Basketball_Small-Forward" and removing "Futsal_Winger" using vi editor.
5. Print working directory.
6. Move Ellie from Swimming Team to Futsal Women team as Futsal Winger without left current directory and use absolute paths.
7. Go into "Futsal_Women" directory using relative path.
8. Change the content of Ellie's file by adding "Futsal_Winger" and removing "Swimming_Butterfly" using nano editor.
9. Scarlett in Swimming Team wants to play Futsal as a Pivot also. You append "Futsal_Pivot" into Scarlett's

file using echo command.

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

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

12. Go into Futsal_Men directory.

13. Print working directory.

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

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

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

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

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

18. Use tree command in ABC_College directory.

19. Attention please! Finally, remove ABC_College directory.

20. Exit from the terminal

😊 **Thanks for Attending** 🙌

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