LINUX CHEAT SHEET

WHAT IS OPERATING SYSTEM : it is a brick between hard ware and software and user

Linux : linux is a free and open source operating system (os)

System commands :

1. which os we are using using : uname
2. which version we are using in os : uname –r
3. which type of os we are using : cat /etc/os -release
4. Cat is used to read the data in a file
5. Etc= folder , os –release =file
6. how long our server will be in running state : uptime
7. to know time : time
8. to know date : date
9. to know calender of this month : cal
10. to know calender of this year : cal 2024
11. to know particular month in calender : cal month 2024
12. To clear screen : clear or ctrl+l
13. to know present user : whoami
14. Default user or ec2 user : who
15. To change from ec2 user to root user : sudo –i or sudo su -
16. From root user to ec2 : exit
17. To know the commands what we use earlier : history

HARDWARE COMMANDS

18. Storage cpu, ram etc these are all hardware components
19. To know the details about cpu : cat / proc/cpu info or lscpu
20. Cat = read the data of a file
21. Proc= folder
22. Cpu info = file name
23. To know the details about ram : cat / proc/mem info
24. Cat = read the data of a file
25. Proc = folder , mem info = filename
26. To know details about volume : df –h
27. To know how many volumes we have :fdisk –l
28. To know boot up messages : dmesg (keernal related information)
29. To know list of processer : ps

FILE COMMANDS

30. To create a file : touch filename
31. To get list of file and folders : ll, ls (ll= long list), (ls= for file name)
32. To create multiple commands of files : touch file1 file2 file3
33. To see recent files : ll –t
34. To see recent files on top : ll –t
35. To see files in reverse order : ll -r
36. To see hidden files : ll –a , ls –a
37. To see files in serialised way : touch file {1..7}
38. How to remove a file : rm –file name
39. How to remove file without asking any permission : rm – f file (-f = forcefully)
40. How to insert data in a file : cat > file name and save the file ctrl+d
41. How to read the data : cat filename
42. How to add some more data in a file : cat >> filename
43. How to copy data from 1 file to another file : cp source destination
    ex : cp file1 file2
    (copy) (source) (destination)
44. How to move data from one file to another file : mv source destination
45. To know private id : hostname -i
46. Add old and new data in a file : cat sorce destination
47. Print with line numbers :cat -n filename
48. Print line numbers in reverse : tac filename

FOLDER COMMANDS

49. To create a folder : mkdir foldername
50. To create a multiple folders : mkdir folder1 folder2 folder3
51. To create folder in serialised way : mkdir folder{1..5}
52. How to remove folder : rmdir foldername
53. To remove multiple folder : rmdir folder1 folder2 folder3
54. To remove folders in serialised way : rmdir folder{1..7}
55. To remove all files : rm –f *
56. To remove all folders : rmdir *
57. Total files and folders deletion : rm –rf *
58. How to go to folder : cd foldername
59. How to create a folder in another folder : mkdir folder1 ---> cd folder1

mkdir folder2 -----> cd folder2

60. To know the present directory : pwd
61. To go one step back : cd..
62. To go home directory : cd
63. Used to go first folder (root) : cd -
64. How to create file in a folder : mkdir folder -----> cd folder---> touch filename
65. To check a file in folder without going to the folder : ls foldername
66. Create a folder from home directory : mkdir folder1/folder2/folder3
67. How to copy a file from homedirectory to folder : cp sorce destination
68. How to check whether the file is copied : ls foldername

VIM EDITORS

VIM EDITOR : vim editors know as visual editor , it is used to modify the files , it has 3 modes

Command mode
Insert mode
Save and quit mode

Command mode : it is a default mode in vim editor , it is used to copy delete and paste the lines in a file

69. Yy : copy the line
70. P : print the copied content
71. 3p : print 3 times
72. 4yy: copy 4 lines at a tym
73. Dd : delete the line
74. 3dd : delete 3 lines

gg : goes to first line of the file

75. G : goes to the last line of the file
76. 23gg : goes to 23rd line of the file
77. U : undo the data
78. Ctrl+r : redo the changes
79. Shift : setnumber : sets numbers of the file
80. /word or ?word : used to find the word
81. We have to edit a file : vim filename

INSERT MODE : it is used to insert /modify the data in a file

82. i = used to go from command mode to insert mode
83. escape = go from insert mode to command mode
84. O = create new line (up)
85. o = creates new line (down)
86. A = used to go the end of the file
87. I = goes to starting of the file
88. a = move one character ahead

SAVE AND QUIT MODE : used to save the data and quit from vim editors

89. Shift+ :W = used to save the data
90. Shift+:w! = used to save the data forcefully
91. Shift +:q = used to quit from vimeditor
92. Shift+:q! = quit forcefully
93. Shift+:wq = save and quit
94. Shift+:wq! = save and quit forcefully

DETAILS ABOUT FILE

- rw- r—r-- 1 root root 0 30 aug2024 08:00pm file name
  - = type of the file
  Rw- r—r-- = permissions of the file
  1= acess control limit (acl)
  Root root = owners of the file
  O= data in kilo bye
  30 aug 2024= date
  08:00pm = time

Permissions

R = read the value (4) , rw- = user permissions 4+2+0 =6
w = write the value (2) , r-- = group permissions 4+0+0=4
x= execute the value (1), r--- = other permissions 4+0+0 =4
- = nothing (0) value =644

95. List of user to see : cat /etc/passwd

96. How to create a own user : useradd name
97. How to see the own user : cat /etc/ passwd

DETAILS ABOUT USER

DEVOPS : X: 1002 :1002 :: /HOME/DEVOPS :/BIN/BASH
Devops : username
X : password that we can store the data
1002 : user id (uid)
1002 : group id (gid)
/home /devops: devops created in /home folder
/bin/bash : commands will store in this path

98. To see list of group = cat /etc/group
99. How to create a own group : groupadd name
100. How to see group : cat /etc/group
101. How to delete group : groupdel name
102. How to change user name of a file : chown username filename
103. How to change group name of a file :chown groupname filename
104. How to change permissions of a file : chmod 777 filename

FIND : IT is used to know whether the command is present or not in the directory
COMMAND : find . -name "*.file"

GREP: GLOBAL REGULAR EXPRESSION PRINT

105. To find word in the data : grep "word " filename
106. To count how many times the word present : grep -c "word " filename
107. To see the line numbers where the word present : grep –n "word " filename
108. To print top 10 lines : head filename
109. To print bottom 10 lines :tail filename
110. Alias = used to shortcuts

SHELL SCRIPTING : shell is used to execute the commands or programs

BASH : bash scripting is used to automate purpose

Every bash scripting starts with #! /bin/bash

#! = shabang , /bin/bash = path

Echo = is used to print the line .