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① How to work with vi editor? Explain all commands of vi editor?

Ans: The VI editor is the most popular and classic text editor in the Linux family.

Syntax: vi filename

this command creates a new file or open an existing file

The VI editor has two modes:

(1) Command mode
(2) Insert mode

When we first open a file we are in command mode. Command mode means that we can use keyboard keys to navigate, delete, copy, paste and do some other task except typing the text.

To enter insert mode, we need to press i.
Then in insert mode, we can enter text and use Enter key to go to the new line, use arrow keys to navigate.

To return to the command mode, we need to press Esc key.

(~) tilde sign represents an unused line in VI editor

Commands in VI editor

1. :q : This command is used to quit out of VI
2. :w : This command is used to save the file
3. :wq : This command first saves the file and then exits out of the VI.
4. k : moves the cursor up one line
5. j : moves the cursor down one line
6. h : moves the cursor to left one character position.
7. l : moves the cursor to right one character position.
8. u : Undo the last change
9. U : Undo all changes to the entire line.
10. dd : Delete line
11. 3dd : Delete 3 lines
12. dw : Delete words
13. cw : change word
14. x : Delete character at cursor
15. r - Replace character
16. yy : copy a line
17. p : paste after current line
18. P : paste before the current line
19. :x : position the cursor on the line number represented by x.
20. s : replaces current character
21. S : deletes the line the cursor is on and replaces it with new text.

(2) Explain different search command in Linux with proper example.

Ans: Different search commands in linux are

(1) Find: This command list all the files in the directory and subdirectory

Syntax: find

(a) find. - some implementations of find require you to put the . for the current directory.

(b) find / - search from the root folder.

(c) find ~ - search from the home folder.

(d) find . -name - search a file for the matching name as the given pattern without ignoring the case.

(e) find . -iname — same as find name except this command ignores the case checking.

(f) find . -path - path option makes find look for directories.

Examples

(1) find . -name '*.java'

(2) find . -iname 'abc.txt'

(3) find . -path '*about'

(4) find . -empty

(5) find . -executable

(6) find . -executable -type f : find for executable files only

(7) find . -type d : only directories and subdirectories in the result.

(2) Locate Command: Locate command is used to find the files by name.

Ex: locate sample.txt

(a) locate -c [.txt]* : This command will count files ending with .txt

(b) locate -i *TeSt.cpp* : Ignore case sensitive locate outputs.

(c) locate -s : shows status.

(3) which command: which command searches through the directories in your path and tries to locate the command we are searching for

ex: which geoloc

(4) Where is command: This command is similar to which command but is more informative

Ex: whereis diff

(5) What is command: What is command searches through manual pages and shows one line summary of what user is looking for

(3) Write and explain steps to connect with static and dynamic network.

- Static net connectivity
  - Go to terminal and type redhat-~~network~~ config-network
  - In network configuration manager, Select new
  - Select Ethernet connection and click on forward
  - Select eth0 and click on forward and click apply.
  - Now click on eth0
  - then open cmd
  - type ipconfig to check network details and IP address subnet mask, default gateway will be shown.
  - Enter the address, subnet mask and defaut Gateway Address and click Ok
  - type ipconfig/all in cmd
  - Note down primary and secondary DNS
  - Enter the DNS into the DNS tab of network configuration of in linux
  - Go to devices tab and click on activate
  - Now internet has been configured
  - now we can open terminal
  - type ping 172.19.2.250

- Dynamic net connectivity
  - Go to terminal and type redhat-config-network
  - click on eth0
  - check allow all users to enable and disable the device and click on Ok.
  - Click activate and then select Yes
  - we have to change 3 files

(1) gedit /etc/sysconfig/network-scripts/ifcfg-eth0
(2) gedit /etc/sysconfig/networking/devices/ifcfg-eth0
(3) gedit /etc/sysconfig/networking/profiles/default/ifcfg-eth0

add a function named check_link_down in all of the above 3 files and save them

```
check_link_down() {
    return 1;
}
```

- Go to terminal and type redhat-config-network and click on activate after selecting eth0.
- open terminal and type ping 172.19.2.250