u train

The vi command

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“ This slide present the most useful keys you need in vi. Practice them on huge files ”

Table of contents

1. Overview
2. Getting started with the vi editor
3. Useful keys in vi

1 Overview

What is vi?

Overview

- **vi** is a default **text editor integrated** in Linux systems
- It is the most popular and classic text editor in the **Linux family**.
- It is **user friendly** and available in almost all linux distributions
- There are other editors such as: **vim, nano, emacs** that can be used for **file modification**

NB: vim is an updated version of **vi**

2

Getting started with the vi editor

Open and edit a file

Important Note!

Before starting:

- Launch your **Visual studio code**,
- Open a **terminal** or use the one that is opened
- Check the VMs on your computer: **vagrant global-status**
- Copy the **ID** of a **Centos 7 server**. If you don't have one, **please install it now**
- Resume or start a **Centos 7 server**: **vagrant resume ID** or **vagrant up** (this works just fine)
- Connect remotely to a **Centos 7 server: vagrant ssh ID**

Starting the vi editor

- To open edit a file with **vi**, we use the command: **vi fileName**
- If the file indicated exists, it will be opened for edition
- If the file does not exist, the **vi** command will create an empty file with the name provided automatically and open it.
- **Example:** Let's create and open a new file in our current directory called **viclass**: **# vi viclass**

VI modes

Starting with vi

- In vi, we basically have two modes: the **command** and the **insert** mode
- In the **Command mode**, whatever you type is interpreted as a **command** not as a text

NB: **vi** always starts in the command mode.

- In the **Insert mode**, whatever you type is interpreted as an **input** and placed in the file.
- To edit the file, you must go to the **insert mode** by pressing the key "**i**".
- To come out of the insert mode, press the **Esc key**, which will take you back to the command mode.

If at some point, you are not sure which mode you are in, press the **Esc key twice**

This will take you to the command mode.

The ~ in the vi editor shows **unused lines.**

Starting with vi

- To **insert** some content in **viclass**, we need to switch to the **INSERT mode** by pressing the key ” **i** “ on the keyboard. (verify the last line of the page)
- Now we can **write** some text in our file just by typing with the keyboard
- To **save the modification** we press **ESC** (Escape key).
- To **quit** the **vi** interface, type **:wq**
- You can **# cat viclass** to view the content you have entered in the file

Let’s go back to the vi interface to learn something new! # vi viclass

Starting with vi

- In **vi**, we use the **arrow keys** (up, down, left, right) to move from one line or from one word to the other. **The mouse does not work here!**
- If you make a change that you don't want to save, you can **escape without saving**.
- To do that, we press **ESC**, type **:q** and hit **Enter**
- When you do that, you might encounter an **override problem** (at the end of the page) as shown in the following line

```
E37: No write since last change (add ! to override)
```

- To solve that problem, type **:q!** (this allows you to exit without saving)

Starting with vi

- There are other useful tools in **vi** such as **[[** and **]]** (open and closed square brackets)
- **[[** takes you at the beginning of the file while **]]** takes you at its end.
- This is very useful when dealing with big files (as the file **secure** we used in the previous lesson)
- Let's quit **vi**, clear the screen and do some practice on a big file!

Starting with vi

- To do that let's redirect the content of the file **secure** to **viclass**
  - **# cat /var/log/secure > viclass**
  - **# cat viclass** (to view the content of **viclass**) Good!
- Open the file in **vi** now, and play around with **[[** and **]]** to move to the beginning or to go to the end of this huge file.

Starting with vi

- While scrolling into the file, you can press **O** key to get a new line on which you can write something.
- You can also press **Enter** to create some space between the lines
- To **delete a line of the file**, you can use **dd** (just press the **d** key twice).
- **NB:** You must be in the **command mode** to do that. If you are in the **INSERT mode**, pressing **dd** will just add the string **dd** to your file!
- If you make a mistake while typing, you can undo what you changed by pressing **u key**

Starting with vi

Let's summarize some tips we have learned so far:

Keys	Functions
i	Takes you to the INSERT mode
ESC and a key	Bring you back to the Command mode
o	Takes you to the next line in INSERT mode
u	undo the previous changes
dd	delete a line in the Command mode

Starting with vi

We also have:

Keys	Functions
arrow keys (up down left right)	Move in the vi interface
ESC and :wq	Save and quit
ESC and :q	Quit without saving changes
:q!	Escape the override problem
[[and]]	move to the beginning and at the end

3

Useful keys in vi

Must be used in the command mode

Other Useful keys in vi

Keys	Functions
Esc	Allows you to toggle between insert and command mode
i	Takes you to the beginning of the line and insert mode (inserts text before cursor)
a	Appends text after cursor
A	Takes you to the end of the line and in insert mode.
O	Adds new line above previous line (takes you to previous line in insert mode)
o	Adds new line below previous line (takes you to next line in insert mode)

Other Useful keys in vi

Keys	Functions
h	Moves left
j	Moves down
k	Moves up
l	Moves to right
w	Moves to next word
W	Moves to next blank delimited word (just to next word after each blank space)
e	Moves to end of word
E	Moves to blank delimited word

Other Useful keys in vi

Keys	Functions
(	Moves sentence back
)	Moves sentence forward
[[	Moves to the beginning of document (top)
]]	Moves to very end of document (bottom)
gg	Moves to top first word of document
G	Moves to bottom first word of document
x	To delete character
n	To skip to the next word

Other Useful keys in vi

Keys	Functions
r(character)	Replaces a character (example. rs replaces original character with s)
:x	To exit and save
:wq!	To exit and save
dd	Removes entire line (10dd would delete 10 lines from where u r down)
:q	To exit without saving
u	To undo the last operation
/(word you are searching for)	To search a word/string (example. /root will search for root throughout file)

“ Don’t try to memorize all of this!

Just Practise and understand ”

See you guys in the next lesson!

Thanks!

Any questions?

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