LPIC-1 101-400 – Lesson 8

103.8 Perform basic file editing operations using vi

The `vi` text editor

- The **vi** text editor is the most popular open source editor and in the Linux ecosystem

- It was first created for UNIX as an evolution of the text editor **ex**

- It is installed by default on most Linux and UNIX systems

- The most popular implementation is **vim** (VI Improved)

- Other implementations: **nvi**, **elvis**, **vile**

`vi` modes

- **Command mode**: this is the default mode when the program is started and keybindings match to commands

- **Ex mode**: this mode is activated by pressing "**:**" and here we can execute **ex** commands

- **Insert mode**: this mode is enabled by pressing "**i**", "**a**" or "**o**" and in here we can edit text

First steps in `vi`

- **$ vi file1** # open file for editing. If the file does not exist it will be created after the save command (**:wb**)

- **$ vi file1 file2** # open two files for editing. Switch to next with "**:n**" and to previous with "**:N**"

- **$ view file1** # open a file read-only

- **$ vi +"set number"** # thee "**+**" allows us to execute **vi**, **ex** commands, on program launch. The **set number** numbers text lines

- To exit **vi** type type the "**:q**" command. You may need to escape Edit mode by pressing "**Esc**" before using "**:q**"
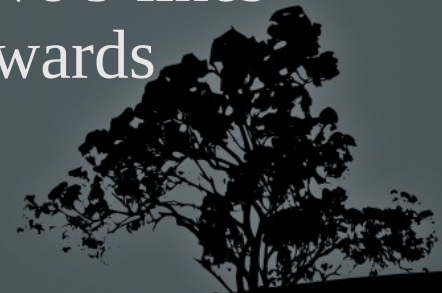
Searching text in `vi`

- **/regex** # search regular expression downwards

- **?regex** # search regular expression upwards

- **n** # next match of search

- **N** # previous match of search

- **:%s/oldstring/newstring/** # replace **oldstring** with **newstring** on first match of every line

- **:%s/oldstring/newstring/g** # replace **oldstring** with **newstring** on every match on every line

- **:%s/oldstring/newstring/c** # ask for confirmation for every match to be replaced

Moving the cursor in `vi`

- **h** # move left
- **j** # move up
- **k** # move down
- **l** # move right
- **w** # move to next word
- **b** # move to previous word
- **e** # move to the end of word
- **0,^** # move to beginning of line
- **$** # move to the end of line

- **:n**, **nG** # move to line number **n**
- **gg** # move to the beginning of the first line
- **G** # move to the beginning of the last line
- **5l** # move 5 characters left
- **7w** # move 7 word right
- **9j** # move 9 lines downwards

Moving around in `vi`

- **H** # move to the top of the screen
- **M** # move to the middle of the screen
- **L** # move to the end of the screen
- **4H** # move to the 4th line below the top of the screen
- **6L** # move to the 6th line above the bottom of the screen
- **Ctrl-f** # move page down
- **Ctrl-b** # move page up

`vi` Insert Mode

- **i** # enter insert mode under the cursor

- **a** # enter insert mode after the cursor

- **o** # enter text in new line below the cursor

- **r** # replace a single character

- **I** # insert text at the beginning of a line

- **A** # insert text at the end of a line

- **O** # enter text in new line above the cursor

- **R** # replace multiple characters

Note: to exit insert mode, press "Esc" or "Ctrl-c"

Cut text and enter insert mode with 'c'

- **c4l** # cut 4 character left of cursor and enter insert mode

- **cc** # cut the current line and enter insert mode

- **c5k** # cut the current line and 5 more downwards and enter insert mode

- **cw** # cut text from cursor until the beginning of the next word and enter insert mode

- **c3w** # cut text from cursor until the beginning of the 3rd next word and enter insert mode

- **c3e** # cut text from cursor until the end of the 3rd next word and enter insert mode

- **c0** # cut text from cursor until the beginning of the line and enter insert mode

- **c$, C** # cut text from cursor until the end of the line and enter insert mode

Cut text with 'd'

- **d4l** # cut 4 characters left of cursor

- **d1l**, **x** # cut the character under the cursor

- **dd** # cut the current line

- **3dd**, **d3d**# cut the current line and 3 more downwards

- **d5j** # cut the current line and 5 more downwards

- **dw** # cut text from cursor until the beginning of the next word

- **d3w** # cut text from cursor until the beginning of the 3rd next word

- **d3e** # cut text from cursor until the end of the 3rd next word

- **d0** # cut text from cursor until the beginning of the line

- **d$, D**# cut text from cursor until the end of the line

Copy text with 'y'

- **y4l** # copy 4 characters left of cursor

- **y1l** # copy the character under the cursor

- **yy, Y** # copy the current line

- **3yy, y3y** # copy the current line and 3 more downwards

- **y5j** # copy the current line and 5 more downwards

- **yw** # copy text from cursor until the beginning of the next word

- **y3w** # copy text from cursor until the beginning of the 3rd next word

- **y3e** # copy text from cursor until the end of the 3rd next word

- **y0** # copy text from cursor until the beginning of the line

- **y$** # copy text from cursor until the end of the line

Yank (paste) text with 'y'
Undo changes with 'u'

- **p** # paste the text cut or copied with **c**, **d**, or **y** after the cursor

- **P** # paste the text cut or copied with **c**, **d**, or **y** before the cursor

- 3p # triple paste the text cut or copied with **c**, **d**, or **y** after the cursor

- **u** # undo changes. Classic **vi** support only a single undo but with **vim** supports multiple

- **U** # undo changes at current line

- **Ctrl-r** # redo an undo
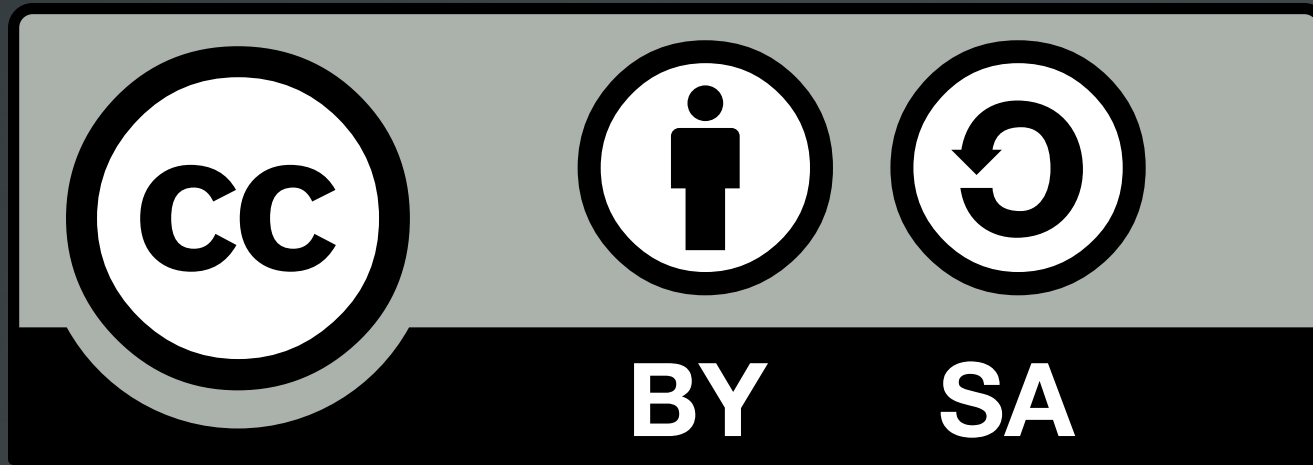
Save and exit `vi`

- **:w** # save current buffer to file

- **:w file1** # save current buffer to **file1**

- **:w!** # force save for read-only files (works for **view** as well)

- **:q** # exit **vi** provided there are no changed to be saves

- **:q!** # exit **vi** and discard changes!

- **:wq, :x, ZZ** # simultaneously save changes and exit **vi**

- **:wq!, :x!** # force save and exit (useful fro read-only files)

- **:e file1** # load **file1** in the place of the current buffer

- **:e! file1** # force load **file1** in the place of the current buffer

- **:e!** # undo changes up to last save!

Other useful commands

- **:set number** # number lines

- **:set syntax** # enable syntax highlighting

- **:set warn** # enable warnings

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