Title: Basics of **vi** editor command

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Abstract: This report is an attempt to provide basic command of **vi** editor for the beginners. vi editor is inbuilt in both Linux and Unix operating systems. We have tried to illustrate the use with example, wherever it was felt necessary. This will give an idea on the use of command while editing a file with vi editor.

Keyword: Linux, Unix, vi editor

Opening and Editing Files with **vi** editor

Sl No	Command	Comments
1	**vi** [option] [fileName]	Create or Edit filename starting at line number 1. [option] are the optional parameters that you want to specify (which is discussed below) and filename is the name of the file you want to create. Ex: I want to create a file name **test.c** . The command to create the file test.c is **vi test.c** In vi command both [option] and [fileName] are optional. You may not specify either. The command **vi** without specifying any parameters will open the vi editor, while saving you have to specify the file. This is discussed at later part.
2	**vi** -r filename	Recover filename that was being created or edited when system crashed. Suppose the file **test.c** crashed when edited. Then the file **test.c** can be recovered using the command **vi** –r test.c . Here **–r** is the option and **test.c** is the fileName

[option] are optional parameters that can be used with **vi**. If optional parameters [option] are specified then filename must be mentioned.

Sl No	[option]	Comments
1	+n	Position the curser on line **n**. Suppose I want open and edit the file **test.c** starting at line number 10. The command for the above is **vi** +10 **test.c**
2	+/pattern	Position the cursor at the first instance of the specified pattern. Suppose I want to look for the first occurrence of the pattern "program" in the file **test.c**. The command for the above is **vi** +/program **test.c**
3	-b	Edit the file in binary mode
4	-m	Prevent modifications to file
5	-n	Operate without creating a swap file. This makes recovery impossible in case of s system failure during editing
6	-o[n]	Open one window for each of the specified filenames or open n windows if n is included
7	-R	Display files in read-only modes

Working with Files. To obtain the keyboard shortcut first press Esc key.

Sl No	Keyboard Shortcut	Comments
1	:wq	Save the current file and exit. Suppose you are working with the file **test.c** and want to exit the **vi** editor after saving the file **test.c**. To perform the above operation first press **Esc key**, then type **:wq.** The file **test.c** will be saved and you will exit from the **vi** editor
2	:q	Close the current buffer and exit vi if no others buffers exist
3	:x	Save the current file only if changes have been made and exit
4	:q!	Quit vi even though latest changes have not been saved for this vi call
5	:w	Save the current file
6	:w fileName	Save to the specified filename
7	:n	Edit the next file when two more files are open
8	:qall	Close all buffers and exit vi
9	:e fileName	Open the specified filename

Moving Cursor: Perform the following if you want to move the cursor while editing the text in **vi** editor. This is in addition to the arrow keys available in the keyboard. You can move the cursor left, right, up and down using the corresponding arrow keys. To use the following shortcut first press **Esc key** and once complete go the insert mode by pressing the key **i**

Sl No	Keyboard Shortcut	Comments
	j	Move cursor down one line. Suppose you want to move the cursor to one line down. Then first press **Esc key**. Then type **j**. This will take the cursor one line down. If you further type **j** then it will again take the cursor one line down. When completed go to the insert mode by striking the key **i**
	k	Move cursor up one line
	h	Move cursor left one line
	l	Move cursor right one line
	0(zero)	Move cursor to start of current line(the one with the arrow)
	$	Move cursor to end of the current line
	w	Move cursor to beginning of next word
	b	Move cursor back to beginning of preceding Word
	:0 or 1G	Move cursor to first line in file
	:n or nG	Move cursor to line n in file
	:$ or G	Move cursor to last line in file

Inserting a text: The following shortcut can be used while editing the file using **vi** editor.

Sl No	Keyboard Shortcut	Comments
1	i	Insert text before cursor, until **Esc key** hit. Suppose you want to insert a text "**program**" before the cursor. Type the text program.
2	I	Insert text at beginning of current line, until Esc key hit
3	a	Append text after cursor, until Esc key hit
4	A	Append text to end of current line, until Esc key hit
5	o	Open and put text in a new line below current line, until Esc key hit
6	O	Open and put text in a new line above current line, until Esc key hit
7	s	Substitute a character
8	S	Substitute a line
9	Esc	Exit insert mode

Changing text: The following shortcut can be used for changing the text while editing the file using **vi** editor.

Sl No	Keyboard Shortcut	Comments
1	r	Replace the current character under cursor (no Esc key hit needed). If you want to replace a character under the cursor. The just type the character to be replaced. No Esc key hit required for this.
2	R	Replace characters, starting with current cursor position, until Esc key hit. If you want to replace characters starting from the current cursor position. Then first press **Esc key**. Then press **R**. Followed by the characters to be replaced. After completion go to the insert mode by striking the key **i** .
3	cw	Change the current word with new text, starting with the character under cursor, until Esc key hit
4	cNw	Change N words beginning with the character under cursor, until Esc key hit
5	c	change(replace)the characters in the current line, until Esc key hit
6	cc	change(replace)the characters in the current line, stopping when Esc key hit
7	Ncc or cNc	change(replace)the next **N** lines, starting with the current line, stopping when Esc key hit
8	p	Insert the last deleted text before the cursor
9	P	Insert the last deleted text after the cursor
10	s	Substitute the current character
11	S	Substitute the entire line
12	~	Change the case of the selected character.

Deleting Text: The following shortcut can be used for deleting the text while editing the file using **vi** editor.

Sl No	Keyboard Shortcut	Comments
1	x	Delete the current character. Suppose you want to delete the character under the cursor. Then first press **Esc key**. Then hit **x**. This will delete one character under the cursor. If you keep on hitting **x** then it will keep on deleting the character under cursor. If you are done then go to the insert mode by by striking the key **i**.
2	X	Delete the previous character
3	Nx	Delete N characters, starting with character under cursor. If you want to delete 10 character starting with the character under the cursor.

		Then do the following. First press **Esc key**. Then type **10x**. This will delete 10 characters. Then go to insert mode by striking the key **i**
4	**dw**	Delete the single word beginning with character under cursor
5	**dNw**	Delete N words beginning with character under cursor
6	**D**	Delete the remainder of the line, starting with current cursor position
7	**dd**	Delete current line
8	**Ndd or dNd**	Delete N lines beginning with the current line
9	**D}**	Delete up to the next paragraph
10	**d^**	Delete back to the beginning of the line
11	**d/**string	Delete up to the next occurrence of the specified string
12	**df**pattern	Delete up to and including the specified pattern on the current line.
13	**dt**pattern	Delete up to and not including the specified pattern on the current line.
14	**dL**	Delete up to the last line on the screen
15	**dG**	Delete to the end of the file

Cut and Paste

Sl No	Keyboard Shortcut	Comments
1	**yy**	Copy (yank ,cut) the current line into buffer
2	**Nyy or yNy**	copy(yank, cut) the next N lines, including the current line, into the buffer
3	**p**	put(paste) the lines in the buffer into the text after the current line
4	**u**	Undo the last change
5	**U**	Restore the current line

Searching for text

Sl No	Keyboard Shortcut	Comments
1	**/**string	Search forward for occurrence of string in text
2	**?**string	Search backward for occurrence of string in text
3	**n**	Move to next occurrence of search string
4	**N**	Move to next occurrence of search string in opposite direction

Determine Line Number

Sl No	Keyboard Shortcut	Comments
1	:.=	Returns line number of current line at bottom of screen
2	:=	Returns the total number of lines at bottom of the screen
3	^g	Provides the current line number, along with the total number of lines, in the file at the bottom of the screen

Saving and reading

Sl No	Keyboard Shortcut	Comments
1	:r filename	Read file named filename and insert after current line(the line with arrow)
2	:w	Write current contents to a file named in original **vi** call
3	:w newfile	Write current contents to a new file named newfile
4	:12,35w smallfile	Write the contents of the line numbered 12 through 35 to a new file named smallfile
5	:w! prevfile	Write current contents over a pre-existing file named prevfile