

Learning goals: Basics of VIM editor

NOTE: Save screenshots of each exercise, and upload your work to your github account as Lab8.pdf and the modified data file by end of Thursday Aug 14.

EXERCISES Start a fresh terminal for this Lab and make a new directory called 'Lab8'.

Copy the 'Braincancer.csv' file to this directory. At the end of the lab, rename the data file as 'Braincancer Lab8.csv' and upload this to github as well.

(1) Open the data file using the VIM editor.

```
ibab@IBAB-MSc-BDB-Comp03:~/lab/shellsc$ cd
ibab@IBAB-MSc-BDB-Comp03:~$ cd lab/Lab8
ibab@IBAB-MSc-BDB-Comp03:~/lab/Lab8$ ls
BrainCancer.csv  lab8.pdf  vim_cleanup_exercises.txt
ibab@IBAB-MSc-BDB-Comp03:~/lab/Lab8$ ls
Braincancer_Lab8.csv  lab8.pdf  vim_cleanup_exercises.txt
ibab@IBAB-MSc-BDB-Comp03:~/lab/Lab8$ vim vim_cleanup_exercises.txt
ibab@IBAB-MSc-BDB-Comp03:~/lab/Lab8$ |
```

(Snap No.1)

```
|This line has too many spaces.
|Replace tabs with single spaces.
|This line starts with too many spaces.
|-----
|the quick brown fox jumps ovr the lazy dog.
|Vim is a amazing text editor.
|i enjoy learning vim.
|python is fun But also challenging.
|-----
|Hello world this sentence needs a period
|What is your name
|Yes , I like apples
|Wait...this is too...many dots...
|-----
|I really just literally totally want to say that this is fine.
|Please delete the word TODO anywhere it appears.
|TODO I will fix this line.
|-----
|Name      Age      City
|Alice     24      New York
|Bob       32      Los Angeles
|Charlie   19      Chicago
|-----
```

(Snap No.2)

(2) Move to the beginning of the file and insert the text: "VIM challenge begins!" on a new line at the very top.

```
VIM challange begains|
This line has too many spaces.
Replace tabs with single spaces.
This line starts with too many spaces.
-----
the quick brown fox jumps ovr the lazy dog.
Vim is a amazing text editor.
i enjoy learning vim.
python is fun But also challenging.
-----
```

(Snap No.3)

(3) Find the word 'Meningioma' and replace it with 'LG glioma'

```
,sex,diagnosis,loc,ki,gtv
1,Female,Meningioma,Infra
2,Male,HG glioma,Supraten
3,Female,Meningioma,Infra
4,Female,LG glioma,Suprat
5,Male,HG glioma,Supraten
6,Female,Meningioma,Supra
7,Male,Meningioma,Suprate
8,Male,LG glioma,Supraten
9,Female,Meningioma,Supra
10,Male,HG glioma,Suprate
11,Male,LG glioma,Suprate
12,Female,Meningioma,Infr
13,Female,Meningioma,Infr
14,Male,NA,Supratentorial
15,Female,Meningioma,Supr
16,Female,HG glioma,Supra
17,Female,Other,Infratent
18,Male,HG glioma,Suprate
19,Male,Meningioma,Suprat
20,Female,Meningioma,Supr
21,Female,Meningioma,Supr
22,Male,HG glioma,Suprate
```

(Snap No.4 Before)

```
,sex,diagnosis,loc,ki,gtv
1,Female,LG glioma,Infrat
2,Male,HG glioma,Supraten
3,Female,LG glioma,Infrat
4,Female,LG glioma,Suprat
5,Male,HG glioma,Supraten
6,Female,LG glioma,Suprat
7,Male,LG glioma,Supraten
8,Male,LG glioma,Supraten
9,Female,LG glioma,Suprat
10,Male,HG glioma,Suprate
11,Male,LG glioma,Suprate
12,Female,LG glioma,Infra
13,Female,LG glioma,Infra
14,Male,NA,Supratentorial
15,Female,LG glioma,Supra
16,Female,HG glioma,Supra
17,Female,Other,Infratent
18,Male,HG glioma,Suprate
19,Male,LG glioma,Suprate
20,Female,LG glioma,Supra
21,Female,LG glioma,Supra
22,Male,HG glioma,Suprate
```

(Snap No.5 After)

Command :**s/Meningnoma/LG glioma/g**

(4) Delete the entire line containing the time column entry '34.66'

```
6,Female,Meningioma,Supratentorial,80,4.82,SRT,0,52.75
7,Male,Meningioma,Supratentorial,80,3.19,SRT,0,55.8
8,Male,LG glioma,Supratentorial,80,12.37,SRT,0,42.1
9,Female,Meningioma,Supratentorial,70,12.16,SRT,0,34.66
10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
12,Female,Meningioma,Supratentorial,70,12.16,SRT,0,34.66
```

(Snap No.6) Search the particular pattern containing file by **/34.66**

```
6,Female,Meningioma,Supratentorial,80,4.82,SRT,0,52.75
7,Male,Meningioma,Supratentorial,80,3.19,SRT,0,55.8
8,Male,LG glioma,Supratentorial,80,12.37,SRT,0,42.1
10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
```

(Snap No.7) Then deleted the line containg 34.66 by **dd**

(5) Copy the current line and paste it two lines below. Show the screenshot before and after pasting with file line numbers to prove that you did it correctly.

```
1 ,sex,diagnosis,loc,ki,gtv,ster eo,status,time
2 1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
3 2,Male,HG glioma,Supratentorial,90,19.35,SRT,1,8.98
4 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
5 4,Female,LG glioma,Supratentorial,80,7.61,SRT,1,47.8
6 5,Male,HG glioma,Supratentorial,90,5.06,SRT,1,6.3
```

(Snap No.8) considering the my current line as 2 indent line
command in normal mode

yy – for coping the file

j – 2 times for going 2 line down

p- for pasting the line

```
1 ,sex,diagnosis,loc,ki,gtv,ster eo,status,time
2 1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
3 2,Male,HG glioma,Supratentorial,90,19.35,SRT,1,8.98
4 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
5 1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
6 4,Female,LG glioma,Supratentorial,80,7.61,SRT,1,47.8
```

(Snap No.9) Shefted two line below

(6) Move to the 11th line of this file and insert "Hello from line 11!"

```
10 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
11 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93 Hello from line 11
12 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
13 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
```

(Snap No.10)

command navigated the line & the at end a in normal mode which allows
to add any word or data

(7) Search for the word 'SRT' and replace it with 'SRS' (all occurences in thefile)

```
1 ,sex,diagnosis,loc,ki,gtv,ster eo,status,time
2 1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
3 2,Male,HG glioma,Supratentorial,90,19.35,SRT,1,8.98
4 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
5 4,Female,LG glioma,Supratentorial,80,7.61,SRT,1,47.8
6 5,Male,HG glioma,Supratentorial,90,5.06,SRT,1,6.3
7 6,Female,Meningioma,Supratentorial,80,4.82,SRS,0,52.75
8 7,Male,Meningioma,Supratentorial,80,3.19,SRT,0,55.8
9 8,Male,LG glioma,Supratentorial,80,12.37,SRT,0,42.1
10 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
11 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93 Hello from line 1
12 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
13 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
14 14,Male,NA,Supratentorial,90,6.38SRT,0,50.85
15 15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
16 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
17 17,Female,Other,Infratentorial,60,24,SRT,1,6.82
18 18,Male,HG glioma,Supratentorial,90,10.8,SRT,0,82.56
```

(Snap No.11) Before image


```

1 |,sex,diagnosis,loc,ki,gtv,sterco,status,time
2 1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
3 2,Male,HG glioma,Supratentorial,90,19.35,SRS,1,8.98
4 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
5 4,Female,LG glioma,Supratentorial,80,7.61,SRS,1,47.8
6 5,Male,HG glioma,Supratentorial,90,5.06,SRS,1,6.3
7 6,Female,Meningioma,Supratentorial,80,4.82,SRS,0,52.75
8 7,Male,Meningioma,Supratentorial,80,3.19,SRS,0,55.8
9 8,Male,LG glioma,Supratentorial,80,12.37,SRS,0,42.1
10 10,Male,HG glioma,Supratentorial,100,2.53,SRS,0,11.48
11 11,Male,LG glioma,Supratentorial,80,0.14,SRS,1,35.93 Hello from line 1
12 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
13 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
14 14,Male,NA,Supratentorial,90,6.38SRS,0,50.85
15 15,Female,Meningioma,Supratentorial,60,9.18,SRS,0,41.44
16 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
17 17,Female,Other,Infratentorial,60,24,SRS,1,6.82
18 18 Male HG glioma Supratentorial 90 10.8 SRS 0 82.56

```

(Snap No.12) After image

Command :-**%s/SRT/SRS/gc** where **%** is global vairable, **s** stands for substitute , **SRT** pattern to be replace **SRS** is pattern to be replaced by , **g** stand for global **c** standa for control the command line will give

```
replace with SRS (y/n/a/q/l/^E/^Y)?|
```

in control line **a** stand for all thus giving a will replace all SRT BY SRS

(8) Yank the first 3 lines of the file and paste them at the bottom

```

85 85,Male,HG glioma,Supratentorial,80,19.81,SRS,1,8.39
86 86,Male,Meningioma,Supratentorial,90,2.5,SRS,0,32.82
87 87,Male,Meningioma,Supratentorial,90,2.02,SRS,0,42.07
88 88,Male,Other,Infratentorial,80,0.11,SRS,0,13.9
89 1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
90 2,Male,HG glioma,Supratentorial,90,19.35,SRS,1,8.98
91 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
92

```

(Snap No.13)

Command :**:2,4y** for yank **Shift +g** for last line and then **shift P** for past

(9) Visually select this entire instructions list and indent it by two spaces.visual mode pushing two spaces

```
1 | ,sex,diagnosis,loc,ki,gtv,stereo,status,time
2 1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
3 2,Male,HG glioma,Supratentorial,90,19.35,SRS,1,8.98
4 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
5 4,Female,LG glioma,Supratentorial,80,7.61,SRS,1,47.8
6 5,Male,HG glioma,Supratentorial,90,5.06,SRS,1,6.3
7 6,Female,Meningioma,Supratentorial,80,4.82,SRS,0,52.75
8 7,Male,Meningioma,Supratentorial,80,3.19,SRS,0,55.8
9 8,Male,LG glioma,Supratentorial,80,12.37,SRS,0,42.1
10 10,Male,HG glioma,Supratentorial,100,2.53,SRS,0,11.48
11 11,Male,LG glioma,Supratentorial,80,0.14,SRS,1,35.93 Hello from line
12 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
13 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
14 14,Male,NA,Supratentorial,90,6.38SRS,0,50.85
15 15,Female,Meningioma,Supratentorial,60,9.18,SRS,0,41.44
16 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
17 17,Female,Other,Infratentorial,60,24,SRS,1,6.82
18 18, Male, HG glioma, Supratentorial, 90, 10.8, SRS, 0, 82.56
```

(Snap No.14)

Command = **crt+v** for visual block mode the **gg** for up to the column in first selected entire first column and **Shift +p** for paste then **r+space** bar to replace with space

(10) Go to the 50th line number, and insert the following text: “ The cat sat on the mat,Another cat was watching. The cat did not move.” Replace all occurrences of the word“cat” with ”tiger”.

```
49 49, Male, Meningioma, Supratentorial, 70, 0.97, SRS, 1, 1.41
50 50, Female, LG glioma, Supratentorial, 80, 0.19, SRS, 0, 11.51 The cat sat on mat, Another cat was watching
51 51, Female, HG glioma, Supratentorial, 90, 0.04, SRS, 0, 31.67
```

(Snap No.15)

a at end of 50th line for going beyond line & in insert mode typed the text

```
75 75, Male, Other, Supratentorial, 1
:%s/cat/tiger/g|
```

(Snap No.16)

Command for replacing cat to tiger

```
49 49, Male, Meningioma, Supratentorial, 70, 0.97, SRS, 1, 1.41
50 50, Female, LG glioma, Supratentorial, 80, 0.19, SRS, 0, 11.51 The tiger sat on mat, Another tiger was watching
51 51, Female, HG glioma, Supratentorial, 90, 0.04, SRS, 0, 31.67
```

(Snap No.16) out put result

(11) Insert the text “This is an important reminder for you.” at 70th line number. Then change word ‘important’ to ‘critical’. Describe the sequence of keystrokes used in full.

```
10 10,Male,HG glioma,Supratentorial,100,2.53,SRS,0,11.48
11 11,Male,LG glioma,Supratentorial,80,0.14,SRS,1,35.93 This is Important reminder for you
12 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
```

(Snap No.17)

Command = **a** for at end of line the typing the line in insert mode

```
10 10,Male,HG glioma,Supratentorial,100,2.53,SRS,0,11.48
11 11,Male,LG glioma,Supratentorial,80,0.14,SRS,1,35.93 This is Important/critical/
12 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
```

(Snap No.18)

command snap 18 follows for the current line only thus only that line is change Important is pattern to be change & critical is to be change by

```
10 10,Male,HG glioma,Supratentorial,100,2.53,SRS,0,11.48
11 11,Male,LG glioma,Supratentorial,80,0.14,SRS,1,35.93 This is critical reminder for you
12 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
```

(Snap No.19) out put result

(12) Note down the current line number, jump to the end of the file and jump back to this line without scrolling through every line. Describe the sequence of keystrokes used in full.

Ans **Shift +G** for jump to the end of file & number of **line + G** for navigating that line

(13) Add the following sentence at the end of the file: "The quick brown fox (who was very quick) jumps over the lazy dog." Delete the text inside the parentheses (including the parentheses) in the following text. Describe the sequence of keystrokes used in full.

```
91 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
92 The quick brown fox (who was very quick) jumps over the lazy dog
```

(Snap No.20)

Shift +g for going down the page & **i** for insert mode then typed Snap 20

```
91 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
92 The quick brown fox [who was very quick] jumps over the lazy dog
```

then the command **6dw** to delete 6 word next parentheses is considered as word (Snap.No21)

```
91 3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
92 The quick brown fox jumps over the lazy dog
```

(Snap.No22) Result out put

(14) Go to the last line of the file and append: "-- end of challenge"

```
92 The quick brown fox jumps over the lazy dog
93 |end of the challenge
    INSERT
```

(Snap.No23) Result out put

Command ; Shift+g for navigate down , then at last line Shift+a for insert mode the enter then typed the text

(15) In the remaining exercises, we are going to use Vim's search, replace, visual modes and

text objects. Open the file vim_cleanup_exercises.txt and do the following.

Describe

the sequence of keystrokes fully for each problem.

(i) Fix spacing issues in the text in the lines 1-3.

```
1 VIM challange begains!
2 This line has too many spaces.
3 Replace tabs with single spaces.
4 This |line starts with too many spaces.
5
```

(Snap.No23)

Ans 1) using the insert mode then using backspace

2) using **x as in normal mode to delete the space**

(ii) Fix any capitalization and typographical errors in lines 5-8.

```
5
6 The quick brown fox jumps over the lazy dog.
7 Vim is an amazing text editor.
8 I enjoy learning vim.
9 Python is fun But also chalenging.
10
```

(Snap.No23)

Ans 1) using the insert mode then using backspace & correcting by typing

2) in normal mode using **r +__ command to replace the character with desired character**

(iii) Correct punctuation errors in lines 10-13.

```
10 -----
11 Hello world this sentence needs a period.
12 What is your name ?
13 Yes , I like apples.
14 Wait...this is too...many dots...!
```

(Snap.No24)

Ans 1) using the insert mode

(iv) Remove unwanted words in lines 15-17.

```
5 -----
6 I really just want to say this is fine.
7 Please delete |the word TODO anywhere it appears.
8 I will fix this line.
9 -----
```

(Snap.No25)

Ans :- 1) in normal mode using **dw delete word
2) in insert mode using back space**

(v) Fix alignment issues in lines 19-22.

```
9 Name      Age |    City
1 Alice      24   New York
2 Bob        32   Los Angeles
3 Charlie    19   Chicago
```

(Snap.No25)

Ans :- 1) in normal mode using **x space
2) in insert mode using back space & space bar**