

- 1) We begin with creating a new directory and copying the file BrainCancer.csv to it. We then open the file using **vim** editor.

```
ibab@IBAB-RA-Comp203:~/Lab8$ cp ../Lab5/BrainCancer.csv .
ibab@IBAB-RA-Comp203:~/Lab8$ ls
BrainCancer.csv
ibab@IBAB-RA-Comp203:~/Lab8$ vim BrainCancer.csv
ibab@IBAB-RA-Comp203:~/Lab8$ vim BrainCancer.csv
```

- 2) We use **gg** to go to the top of the file. We press the **i** key to let us enter into the insert mode from the normal mode. We can tell this by **INSERT** that comes at the bottom of the screen. This allows us to type the sentence **VIM challenge begins**.

```
sex,diagnosis,loc,ki,gtv,stereo,status,time
1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
2,Male,HG glioma,Supratentorial,90,19.35,SRT,1,8.98
3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
4,Female,LG glioma,Supratentorial,80,7.61,SRT,1,47.8
5,Male,HG glioma,Supratentorial,90,5.06,SRT,1,6.3
6,Female,Meningioma,Supratentorial,80,4.82,SRS,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,Infratentorial,90,6.54,SRS,0,34.26
13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
-- INSERT --                               1,1           Top
```

```
VIM challenge begins!
sex,diagnosis,loc,ki,gtv,stereo,status,time
1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
2,Male,HG glioma,Supratentorial,90,19.35,SRT,1,8.98
3,Female,Meningioma,Infratentorial,70,7.95,SRS,0,26.46
4,Female,LG glioma,Supratentorial,80,7.61,SRT,1,47.8
5,Male,HG glioma,Supratentorial,90,5.06,SRT,1,6.3
6,Female,Meningioma,Supratentorial,80,4.82,SRS,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,Infratentorial,90,6.54,SRS,0,34.26
13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
2,1           Top
```

3) We use the commands: i) `:set nu` – gives the line numbers ii) `:%s /Meningioma/LG glioma/g`. This allows us to substitute the word Meningioma with LG glioma globally or throughout the file. I use the key `u` to undo all the changes.

```
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,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 9,Female,Meningioma,Supratentorial,70,12.16,SRT,0,34.66
11 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
12 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
13 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
14 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
15 14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
16 15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
17 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
18 17,Female,Other,Infratentorial,60,24,SRT,1,6.82
19 18,Male,HG glioma,Supratentorial,90,10.8,SRT,0,82.56
20 19,Male,Meningioma,Supratentorial,80,13.49,SRS,1,6.92
21 20,Female,Meningioma,Supratentorial,90,2.5,SRT,0,30.16
22 21,Female,Meningioma,Supratentorial,80,2.82,SRS,0,24.39
23 22,Male,HG glioma,Supratentorial,70,14.44,SRT,1,14
24 23,Female,Other,Infratentorial,80,2.11,SRS,0,10.49
25 24,Female,Meningioma,Infratentorial,100,2.13,SRS,1,51.02
26 25,Female,Meningioma,Supratentorial,70,6.48,SRT,1,33.41
27 26,Male,LG glioma,Supratentorial,90,4.23,SRT,1,25.02
28 27,Male,Other,Supratentorial,60,34.64,SRT,1,11.57
Already at oldest change 1,1 Top
```

This is what the file looks like before the changes.

This is how the file looks after substituting Meningioma with LG glioma.

```
1 [sex,diagnosis,loc,ki,gtv,stereo,status,time
2 1,Female,LG glioma,Infratentorial,90,6.11,SRS,0,57.64
3 2,Male,HG glioma,Supratentorial,90,19.35,SRT,1,8.98
4 3,Female,LG glioma,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,LG glioma,Supratentorial,80,4.82,SRS,0,52.75
8 7,Male,LG glioma,Supratentorial,80,3.19,SRT,0,55.8
9 8,Male,LG glioma,Supratentorial,80,12.37,SRT,0,42.1
10 9,Female,LG glioma,Supratentorial,70,12.16,SRT,0,34.66
11 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
12 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
13 12,Female,LG glioma,Infratentorial,90,6.54,SRS,0,34.26
14 13,Female,LG glioma,Infratentorial,90,0.63,SRS,0,32.98
15 14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
16 15,Female,LG glioma,Supratentorial,60,9.18,SRT,0,41.44
17 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
18 17,Female,Other,Infratentorial,60,24,SRT,1,6.82
19 18,Male,HG glioma,Supratentorial,90,10.8,SRT,0,82.56
20 19,Male,LG glioma,Supratentorial,80,13.49,SRS,1,6.92
21 20,Female,LG glioma,Supratentorial,90,2.5,SRT,0,30.16
22 21,Female,LG glioma,Supratentorial,80,2.82,SRS,0,24.39
23 22,Male,HG glioma,Supratentorial,70,14.44,SRT,1,14
24 23,Female,Other,Infratentorial,80,2.11,SRS,0,10.49
25 24,Female,LG glioma,Infratentorial,100,2.13,SRS,1,51.02
26 25,Female,LG glioma,Supratentorial,70,6.48,SRT,1,33.41
27 26,Male,LG glioma,Supratentorial,90,4.23,SRT,1,25.02
28 27,Male,Other,Supratentorial,60,34.64,SRT,1,11.57
29 28,Male,HG glioma,Supratentorial,70,33.69,SRT,1,0.07
30 29,Male,LG glioma,Supratentorial,60,3.81,SRT,0,36.1
31 30,Female,LG glioma,Supratentorial,90,4.72,SRS,0,65.02
32 31,Female,LG glioma,Supratentorial,80,0.85,SRS,1,6.1
33 32,Male,LG glioma,Supratentorial,90,2.56,SRS,0,44.39
34 33,Female,Other,Infratentorial,70,13.45,SRT,1,10.82
35 34,Male,Other,Infratentorial,80,6.81,SRS,0,57.11
36 35,Female,LG glioma,Supratentorial,90,7.3,SRT,0,5.51
```

4) We use the command **:10d** to delete the 10<sup>th</sup> line as it contains the time 34.66.

```
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,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
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,90,6.38,SRT,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
19 19,Male,Meningioma,Supratentorial,80,13.49,SRS,1,6.92
20 20,Female,Meningioma,Supratentorial,90,2.5,SRT,0,30.16
21 21,Female,Meningioma,Supratentorial,80,2.82,SRS,0,24.39
22 22,Male,HG glioma,Supratentorial,70,14.44,SRT,1,14
:10d                                     10,1                               Top
```

5) To copy or yank an entire line(here line 14) we use **yy** command. We move down below two lines and paste it using **p**.

```
9 8,Male,LG glioma,Supratentorial,80,12.37,SRT,0,42.1
10 9,Female,Meningioma,Supratentorial,70,12.16,SRT,0,34.66
11 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
12 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
13 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
14 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
15 14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
16 15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
17 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
18 17,Female,Other,Infratentorial,60,24,SRT,1,6.82
19 18,Male,HG glioma,Supratentorial,90,10.8,SRT,0,82.56
20 19,Male,Meningioma,Supratentorial,80,13.49,SRS,1,6.92
21 20,Female,Meningioma,Supratentorial,90,2.5,SRT,0,30.16
22 21,Female,Meningioma,Supratentorial,80,2.82,SRS,0,24.39
```

Before copying the 14<sup>th</sup> line.

After copying the 14<sup>th</sup> line to the 18<sup>th</sup> position.

```
10 9,Female,Meningioma,Supratentorial,70,12.16,SRT,0,34.66
11 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
12 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
13 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
14 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
15 14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
16 15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
17 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
18 17,Female,Other,Infratentorial,60,24,SRT,1,6.82
19 14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
20 18,Male,HG glioma,Supratentorial,90,10.8,SRT,0,82.56
21 19,Male,Meningioma,Supratentorial,80,13.49,SRS,1,6.92
22 20,Female,Meningioma,Supratentorial,90,2.5,SRT,0,30.16
```



6) To add a line in the 11<sup>th</sup> line, we go into the insert mode using **i** and type and insert the given line.

```
9 8, Male, LG glioma, Supratentorial, 80, 12.37, SRT, 0, 42.1
10 9, Female, Meningioma, Supratentorial, 70, 12.16, SRT, 0, 34.66
11 "Hello from line 11!" 10, Male, HG glioma, Supratentorial, 100, 2.5
    3, SRT, 0, 11.48
12 11, Male, LG glioma, Supratentorial, 80, 0.14, SRT, 1, 35.93
13 12, Female, Meningioma, Infratentorial, 90, 6.54, SRS, 0, 34.26
```

7) To search for the word SRT, we do **/SRT** which shows us the line closest to search which contains SRT.

Then we substitute SRT with SRS globally through the file using the command **:%s SRT/SRS/g**

```
45 44, Male, Meningioma, Supratentorial, 80, 12.63, SRT, 1, 4.16
46 45, Male, Other, Infratentorial, 90, 3.12, SRT, 0, 18.95
47 46, Male, Meningioma, Supratentorial, 60, 7.09, SRS, 1, 31.25
48 47, Male, HG glioma, Supratentorial, 80, 29.27, SRT, 0, 5.15
49 48, Female, Meningioma, Supratentorial, 80, 26.31, SRT, 1, 39.54
50 49, Male, Meningioma, Supratentorial, 70, 0.97, SRT, 1, 1.41
51 50, Female, LG glioma, Supratentorial, 80, 0.19, SRS, 0, 11.51
52 51, Female, HG glioma, Supratentorial, 90, 0.04, SRT, 0, 31.67
53 52, Female, Meningioma, Infratentorial, 90, 9.24, SRT, 0, 26.85
/SRT
```

Finding SRT

Substituting SRT with SRS. This is proved by the line at the end saying 65 substitutions done.

```
59 58, Male, HG glioma, Supratentorial, 80, 3.75, SRS, 1, 19.9
60 59, Female, Other, Supratentorial, 80, 11.83, SRS, 1, 22.03
61 60, Female, Meningioma, Supratentorial, 90, 2.47, SRS, 0, 17.57
62 61, Female, HG glioma, Supratentorial, 80, 12.08, SRS, 1, 7.25
63 62, Male, Meningioma, Supratentorial, 80, 11.51, SRS, 1, 14.62
64 63, Female, HG glioma, Supratentorial, 40, 22.87, SRS, 1, 3.38
65 64, Male, Meningioma, Supratentorial, 80, 4.77, SRS, 0, 67.38
66 65, Male, LG glioma, Supratentorial, 80, 9.58, SRS, 0, 78.75
67 66, Female, Meningioma, Supratentorial, 100, 4, SRS, 0, 52.23
68 67, Female, HG glioma, Supratentorial, 80, 7.59, SRS, 1, 4.56
69 68, Male, Other, Infratentorial, 70, 0.01, SRS, 0, 23.67
70 69, Female, Meningioma, Supratentorial, 80, 6.93, SRS, 0, 10.1
71 70, Female, Meningioma, Supratentorial, 70, 3.63, SRS, 0, 32.82
72 71, Male, Meningioma, Supratentorial, 70, 8.45, SRS, 0, 19.41
73 72, Male, Meningioma, Supratentorial, 80, 20.93, SRS, 1, 31.15
74 73, Male, LG glioma, Supratentorial, 90, 2.64, SRS, 0, 20.13
75 74, Female, HG glioma, Supratentorial, 80, 0.19, SRS, 1, 11.02
76 75, Male, Other, Supratentorial, 100, 24.91, SRS, 0, 19.74
77 76, Female, Meningioma, Supratentorial, 80, 31.74, SRS, 0, 57.25
78 77, Female, Meningioma, Supratentorial, 80, 2.39, SRS, 0, 73.74
79 78, Female, Meningioma, Supratentorial, 90, 7.26, SRS, 0, 49.05
80 79, Female, Meningioma, Supratentorial, 100, 9.66, SRS, 0, 39.25
81 80, Female, Meningioma, Infratentorial, 70, 2.94, SRS, 0, 1.54
82 81, Female, HG glioma, Supratentorial, 80, 15.45, SRS, 1, 46.16
83 82, Female, Other, Supratentorial, 90, 1.82, SRS, 0, 47.11
84 83, Male, LG glioma, Infratentorial, 90, 30.41, SRS, 0, 1.18
85 84, Male, HG glioma, Supratentorial, 80, 0.16, SRS, 1, 20.69
86 85, Male, HG glioma, Supratentorial, 80, 19.81, SRS, 1, 6.39
87 86, Male, Meningioma, Supratentorial, 90, 2.5, SRS, 0, 32.82
88 87, Male, Meningioma, Supratentorial, 90, 2.02, SRS, 0, 42.07
89 88, Male, Other, Infratentorial, 80, 0.11, SRS, 0, 13.9
65 substitutions on 65 lines
```

89,1

Bot

8) To yank or copy the first three line in the file we use **:1,3y** to copy them. Then using **shift+g or G** we go to the end of the file where we use **p** to paste the three lines at the end of the file.

```

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 9,Female,Meningioma,Supratentorial,70,12.16,SRT,0,34.66
11 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
12 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
13 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
14 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
15 14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
16 15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
17 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
18 17,Female,Other,Infratentorial,60,24,SRT,1,6.82
19 18,Male,HG glioma,Supratentorial,90,10.8,SRT,0,82.56
20 19,Male,Meningioma,Supratentorial,80,13.49,SRS,1,6.92
21 20,Female,Meningioma,Supratentorial,90,2.5,SRT,0,30.16
22 21,Female,Meningioma,Supratentorial,80,2.82,SRS,0,24.39
23 22,Male,HG glioma,Supratentorial,70,14.44,SRT,1,14
24 23,Female,Other,Infratentorial,80,2.11,SRS,0,10.49
25 24,Female,Meningioma,Infratentorial,100,2.13,SRS,1,51.02
26 25,Female,Meningioma,Supratentorial,70,6.48,SRT,1,33.41
27 26,Male,LG glioma,Supratentorial,90,4.23,SRT,1,25.02
28 27,Male,Other,Supratentorial,60,34.64,SRT,1,11.57
29 28,Male,HG glioma,Supratentorial,70,33.69,SRT,1,0.07
30 29,Male,Meningioma,Supratentorial,60,3.81,SRT,0,36.1
31 30,Female,Meningioma,Supratentorial,90,4.72,SRS,0,65.02
3 lines yanked 3,1 Top

```

Here we yank the three lines and are confirmed by the line at end saying 3 lines yanked.

Here the copies lines are added at the end of the files and it says that three lines are added.

```

79 78,Female,Meningioma,Supratentorial,90,7.26,SRT,0,49.05
80 79,Female,Meningioma,Supratentorial,100,9.66,SRT,0,39.25
81 80,Female,Meningioma,Infratentorial,70,2.94,SRS,0,1.54
82 81,Female,HG glioma,Supratentorial,80,15.45,SRT,1,46.16
83 82,Female,Other,Supratentorial,90,1.82,SRT,0,47.11
84 83,Male,LG glioma,Infratentorial,90,30.41,SRT,0,1.18
85 84,Male,HG glioma,Supratentorial,80,0.16,SRT,1,20.69
86 85,Male,HG glioma,Supratentorial,80,19.81,SRT,1,6.39
87 86,Male,Meningioma,Supratentorial,90,2.5,SRT,0,32.82
88 87,Male,Meningioma,Supratentorial,90,2.02,SRS,0,42.07
89 88,Male,Other,Infratentorial,80,0.11,SRT,0,13.9
90 ,sex,diagnosis,loc,ki,gtv,ster eo,status,time
91 1,Female,Meningioma,Infratentorial,90,6.11,SRS,0,57.64
92 2,Male,HG glioma,Supratentorial,90,19.35,SRT,1,8.98
3 more lines 90,1 Bot

```

9) We enter the Visual mode using **v** key and start selecting the first column in a visual block using **ctrl+v**. We copy the first column using **y** and paste it at the cursor position using **p** or **shift+p**. This creates a copy of the first column. Once again we select the first column using the **ctrl+v** and **replace it with a space using r** followed by **space**. This creates the first space. We then select the

first column once again using **visual block or ctrl+v** and copy the space column. We then paste it once again at the cursor. ***This creates two spaces before the original first column***

```
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,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 9,Female,Meningioma,Supratentorial,70,12.16,SRT,0,34.66
11 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
12 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
13 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
14 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
15 14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
16 15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
17 16,Female,HG glioma,Supratentorial,70,11.38,SRS,1,7.05
18 17,Female,Other,Infratentorial,60,24,SRT,1,6.82
19 18,Male,HG glioma,Supratentorial,90,10.8,SRT,0,82.56
```

10) We first go to the 10<sup>th</sup> line and press i to enter into the insert mode and then enter the line “The cat sat on the mat. Another cat was watching. The cat did not move.”

We search for cat using **/cat** and then substitute it using **:s/cat/tiger/g** in the entire line.

```
45 44,Male,Meningioma,Supratentorial,80,12.63,SRT,1,4.16
46 45,Male,Other,Infratentorial,90,3.12,SRT,0,18.95
47 46,Male,Meningioma,Supratentorial,60,7.09,SRS,1,31.25
48 47,Male,HG glioma,Supratentorial,80,29.27,SRT,0,5.15
49 48,Female,Meningioma,Supratentorial,80,26.31,SRT,1,39.54
50 The cat sat on the mat. Another cat was watching. The cat did not move." 49,Male,Meningioma,Supratentorial,70,0.97,SRT,1,1.41
51 50,Female,LG glioma,Supratentorial,80,0.19,SRS,0,11.51
52 51,Female,HG glioma,Supratentorial,90,0.04,SRT,0,31.67
53 52,Female,Meningioma,Infratentorial,90,9.24,SRT,0,26.85
54 53,Male,HG glioma,Supratentorial,90,2.5,SRT,1,9.77
55 54,Male,Meningioma,Infratentorial,80,24.41,SRT,0,39.54
56 55,Female,HG glioma,Supratentorial,80,0.63,SRT,1,16.92
```

```
47 46,Male,Meningioma,Supratentorial,60,7.09,SRS,1,31.25
48 47,Male,HG glioma,Supratentorial,80,29.27,SRT,0,5.15
49 48,Female,Meningioma,Supratentorial,80,26.31,SRT,1,39.54
50 The tiger sat on the mat. Another tiger was watching. The tiger did not move." 49,Male,Meningioma,Supratentorial,70,0.97,SRT,1,1.41
51 50,Female,LG glioma,Supratentorial,80,0.19,SRS,0,11.51
52 51,Female,HG glioma,Supratentorial,90,0.04,SRT,0,31.67
53 52,Female,Meningioma,Infratentorial,90,9.24,SRT,0,26.85
```



11) We first go to the 70<sup>th</sup> line and press i to enter into the insert mode and then enter the line “This is an important reminder.”

We search for important using **/important** and then substitute it using **:s/important/critical** . This replaces important with critical.

```
68 67,Female,HG glioma,Supratentorial,80,7.59,SRT,1,4.56
69 68,Male,Other,Infratentorial,70,0.01,SRS,0,23.67
70 "This is an important reminder." 69,Female,Meningioma,Supratentorial,
80,6.93,SRS,0,10.1
71 70,Female,Meningioma,Supratentorial,70,3.63,SRT,0,32.82
72 71,Male,Meningioma,Supratentorial,70,8.45,SRT,0,19.41
73 72,Male,Meningioma,Supratentorial,80,20.93,SRT,1,31.15
74 73,Male,LG glioma,Supratentorial,90,2.64,SRT,0,20.13
75 74,Female,HG glioma,Supratentorial,80,0.19,SRT,1,11.02
76 75,Male,Other,Supratentorial,100,24.01,SRT,0,19.74
```

Before replacing.

After replacing important with critical.

```
68 67,Female,HG glioma,Supratentorial,80,7.59,SRT,1,4.56
69 68,Male,Other,Infratentorial,70,0.01,SRS,0,23.67
70 "This is an critical reminder." 69,Female,Meningioma,Supratentorial,8
0,6.93,SRS,0,10.1
71 70,Female,Meningioma,Supratentorial,70,3.63,SRT,0,32.82
72 71,Male,Meningioma,Supratentorial,70,8.45,SRT,0,19.41
```

12) We start by keeping the cursor on the 13<sup>th</sup> line.

We can jump to the end of the file or the last line using **g shift + g** or **G**.

Now, to go back to the 13<sup>th</sup> line without scrolling we use **:13 then press enter** which takes us directly to the 13<sup>th</sup> line.

```
10 9,Female,Meningioma,Supratentorial,70,12.16,SRT,0,34.66
11 10,Male,HG glioma,Supratentorial,100,2.53,SRT,0,11.48
12 11,Male,LG glioma,Supratentorial,80,0.14,SRT,1,35.93
13 12,Female,Meningioma,Infratentorial,90,6.54,SRS,0,34.26
14 13,Female,Meningioma,Infratentorial,90,0.63,SRS,0,32.98
15 14,Male,NA,Supratentorial,90,6.38,SRT,0,50.85
16 15,Female,Meningioma,Supratentorial,60,9.18,SRT,0,41.44
```

13) We go to the end of the file using **shift+g**. Then using the i key we enter the insert mode and enter the line “**The quick brown fox (who was very quick) jumps over the lazy dog.**” at the end of the file.

Then **i** use the visual block to select the text inside the parentheses (including the parentheses) and press **d** to delete the selected text. We are then left with a new line.

Inserting a new line at the end of file in the insert mode.

```
84 83,Male,LG glioma,Infratentorial,90,30.41,SRT,0,1.18
85 84,Male,HG glioma,Supratentorial,80,0.16,SRT,1,20.69
86 85,Male,HG glioma,Supratentorial,80,19.81,SRT,1,6.39
87 86,Male,Meningioma,Supratentorial,90,2.5,SRT,0,32.82
88 87,Male,Meningioma,Supratentorial,90,2.02,SRS,0,42.07
89 88,Male,Other,Infratentorial,80,0.11,SRT,0,13.9
90 "The quick brown fox(who was very quick)jumps over the lazy dog."
90,65 Bot
```

We delete the selected piece of text using visual block then d key.

```
84 83,Male,LG glioma,Infratentorial,90,30.41,SRT,0,1.18
85 84,Male,HG glioma,Supratentorial,80,0.16,SRT,1,20.69
86 85,Male,HG glioma,Supratentorial,80,19.81,SRT,1,6.39
87 86,Male,Meningioma,Supratentorial,90,2.5,SRT,0,32.82
88 87,Male,Meningioma,Supratentorial,90,2.02,SRS,0,42.07
89 88,Male,Other,Infratentorial,80,0.11,SRT,0,13.9
90 "The quick brown fox jumps over the lazy dog."
```

14) We use the **key A** to go the end of line and get automatically into the insert mode into the next character. We can then simply enter **-end of challenge** at the end of the line.

```
84 83,Male,EG glioma,Infratentorial,50,30.41,SRT,0,1.18
85 84,Male,HG glioma,Supratentorial,80,0.16,SRT,1,20.69
86 85,Male,HG glioma,Supratentorial,80,19.81,SRT,1,6.39
87 86,Male,Meningioma,Supratentorial,90,2.5,SRT,0,32.82
88 87,Male,Meningioma,Supratentorial,90,2.02,SRS,0,42.07
89 88,Male,Other,Infratentorial,80,0.11,SRT,0,13.9 -end of challenge
```

15) For the sub questions 1, 2, 3,5 we use the insert option. We press the key i and enter the insert mode.

```
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 amaziing 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
-----
```

ORIGINAL FILE

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

```
This line has too many spaces.
Replace tabs with single spaces.
This line starts with too many spaces.
```

```
The quick brown fox jumps over the lazy dog.
Vim is an amaziing text editor.
I am enjoying learning vim.
Python is fun but also challenging.
-----
```

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



```
Hello,world. This sentence needs a period.  
What is your name?  
Yes, I like apples.  
Wait, this is too many dots.
```

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

Remove unwanted words in lines . This was done using the visual block, selecting the unwanted text and using d key to delete.

```
I want to say that this is fine.  
Please delete the word anywhere it appears.  
I will fix this line.
```

```
Name      Age      City  
Alice      24       New York  
Bob        32       Los Angeles  
Charlie    19       Chicago
```

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