Subject:	**Unix Lab(**SE ITL402**)**		
Class:	**SE IT / Semester – IV (CBCGS) / Academic year: 2017-18**		
Name of Student:	**Kazi Jawwad A Rahim**		
Roll No:	**28**	**Date of performance (DOP) :**	
Assignment/Experiment No:	**04**	**Date of checking (DOC) :**	
Title: To study Editor Vi/other editor			
Marks:		**Teacher's Signature:**	

1. Aim: To study Vi/other editor.

2. Prerequisites:

C Programming Language and Operating System

3. Hardware Requirements:

- PC with minimum 2GB RAM

4. Software Requirements:

- Fedora installed.

5. Learning Objectives:

To introduce basic UNIX general purpose commands.

6.Course Objectives Applicable: LO1,LO2,LO5,LO6

7. Program Outcomes Applicable: PO1

8. Program Education Objectives Applicable: PEO1

9. Theory: Vi Editor

vi is a screen-oriented text editor originally created for the Unix operating system. The portable subset of the behavior of vi and programs based on it, and the ex editor language supported within these programs, is described by (and thus standardized by) the Single Unix Specification and POSIX.

The original code for vi was written by Bill Joy in 1976, as the visual mode for a line editor called ex that Joy had written with Chuck Haley. Bill Joy's ex 1.1 was released as part of the first BSD Unix release in March 1978. It was not until version 2.0 of ex, released as part of Second Berkeley Software Distribution[4] in May 1979, that the editor was installed under the name "vi" (which took users straight into ex's visual mode), and the name by which it is known today. Some current implementations of vi can trace their source code ancestry to Bill Joy; others are completely new, largely compatible reimplementations.

The name "vi" is derived from the shortest unambiguous abbreviation for the ex command `visual`, which switches the ex line editor to visual mode. The name is sometimes pronounced /ˈviːˈaɪ/ (as in the discrete English letters *v* and *i*) and sometimes to rhyme with *bye*.

In addition to various non–free software variants of vi distributed with proprietary implementations of Unix, vi was opensourced with OpenSolaris, and several free and open source software vi clones exist. A 2009 survey of *Linux Journal* readers found that vi was the most widely used text editor among respondents, beating gedit, the second most widely used editor, by nearly a factor of two (36% to 19%).

10. Results:

Commands	Description
I) Creating file in Vi Editor	
vi filename.extension	Through this method we can create file in Vi Editor
II) Saving and quitting the file	
:wq	Saves the file and quit.
:q!	Unsave the file and quit
III)Displaying and hiding line numbers	
:set nu	Shows line number
:set nonu	Hide line numbers
:set list	Shows blank character
IV)Insert mode commands	
:u	Undo Changes

Shift+~	Changes case of characters
Shift+j	Joins the two lines
V) Copy - Paste	
y/Y	Copy(Yank)
p/P	Paste
4yy	No of lines copy
VI) Edit file positioning cursor	
h	Moves cursor to left
j	Moves cursor to down
k	Moves cursor to up
l	Moves cursor to right
w	Moves word to right
b	Moves word to left
e	Moves word to end
backspace	Moves cursor to left
1G / H	Moves cursor to top of screen
M	Moves cursor to middle of screen
G/L	Moves cursor to bottom of screen
5G	Moves cursor to 5^{th} line
Ctrl+F	Moves one screen forward
Ctrl+D	Moves half screen forward
Ctrl+B	Moves half screen forward
VII) Deleting Commands	
x	Deletes the current character
X	Deletes the left character
dw	Deletes the current word
dd	Deletes the current line
D	Deletes the right side word
dG	Deletes the all lines below
d1G	Deletes the first line
:3,8	Deletes the line from line no.3 to 8
VIII)Changing Text	

cW	Changes the word
cc	It changes the character
c/C	It changes the character from right
r	It can replace only character
S	Substitute
IX) Edit file commands	
O	Insert the line below cursor again above
I	Insert the text before cursor
X) Refresh screen including files	
:r filename.extension	It refreshes the file
:line_number filename.extension	It refreshes the lines from ahead

OUTPUT:

I) Creating file in Vi Editor

II) Saving and quitting the file

```
Hello world!!!
Welcome to FAMT...
Welcome to IT department
Welcome to Second Year 4th sem
Welcome to Unix Lab
It is 4th Unix practical
There are overall 40 commands
It is 2hrs practical session
We are doing Unix general purpose commands
These commands are of one character or word
~
~
~
~
~
~
~
~
~
~
"demo.txt" [New] 10L, 281C written
```

```
[students@localhost ~]$ vi demo.txt
[students@localhost ~]$
```

III)Displaying and hiding line numbers

```
     1 Hello world!!!
     2 Welcome to FAMT...
     3 Welcome to IT department
     4 Welcome to Second Year 4th sem
     5 Welcome to Unix Lab
     6 It is 4th Unix practical
     7 There are overall 40 commands
     8 It is 2hrs practical session
     9 We are doing Unix general purpose commands
    10 These commands are of one character or word
~
~
~
~
~
~
~
~
~
~
:set nu
```

IV)Insert mode commands Shift+j

```
Hello world!!!
Welcome to FAMT...
Welcome to IT department
Welcome to Second Year 4th sem
Welcome to UNix Lab
It is 4th Unix practical There are overall 40 commands
It is 2hrs practical session
We are doing Unix general purpose commands
These commands are of one character or word
~
~
~
```

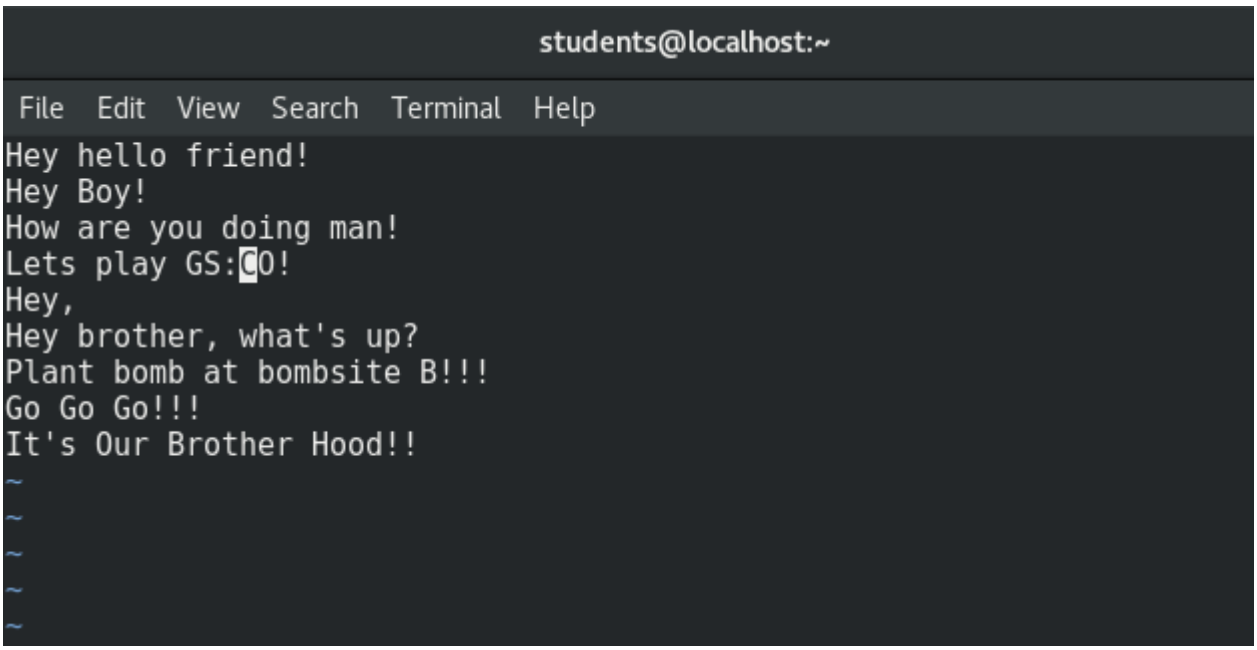
V) Copy – Paste

```
Hello world!!!
Welcome to FAMT...
Welcome to IT department
Welcome to Second Year 4th sem
Welcome to Second Year 4th sem
Welcome to UNix Lab
It is 4th Unix practical There are overall 40 commands
It is 2hrs practical session
We are doing Unix general purpose commands
These commands are of one character or word
~
~
~
```

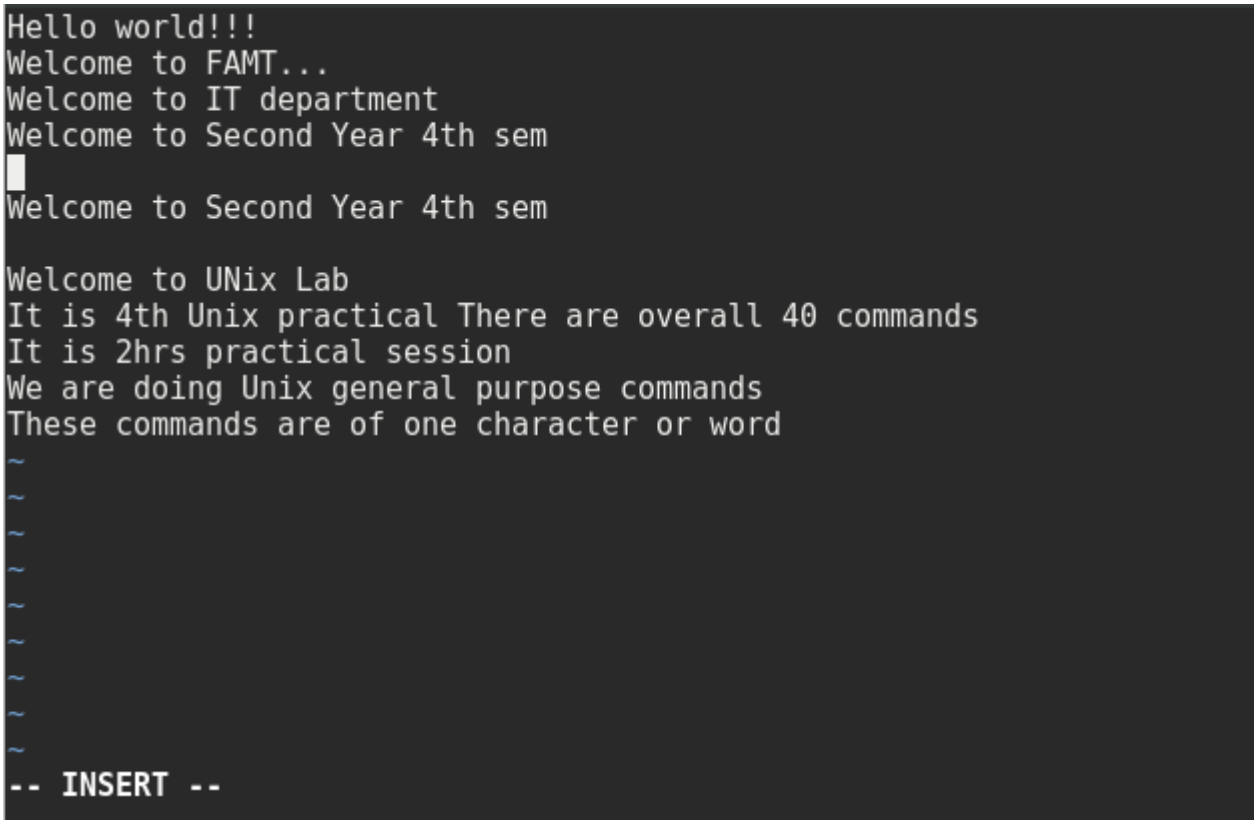
VI) Deleting Commands

```
                    students@localhost:~
 File   Edit   View   Search   Terminal   Help
Hey hello friend!
Hey Boy!
How are you doing man!
Lets play CS:GO!
Hey, I just headshot you!!!
Hey brother, what's up?
Plant at bombsite B!!!
Go Go Go!!!
It's Our Brother Hood!!!
~
~
~
~
~
~
~
~
~
```

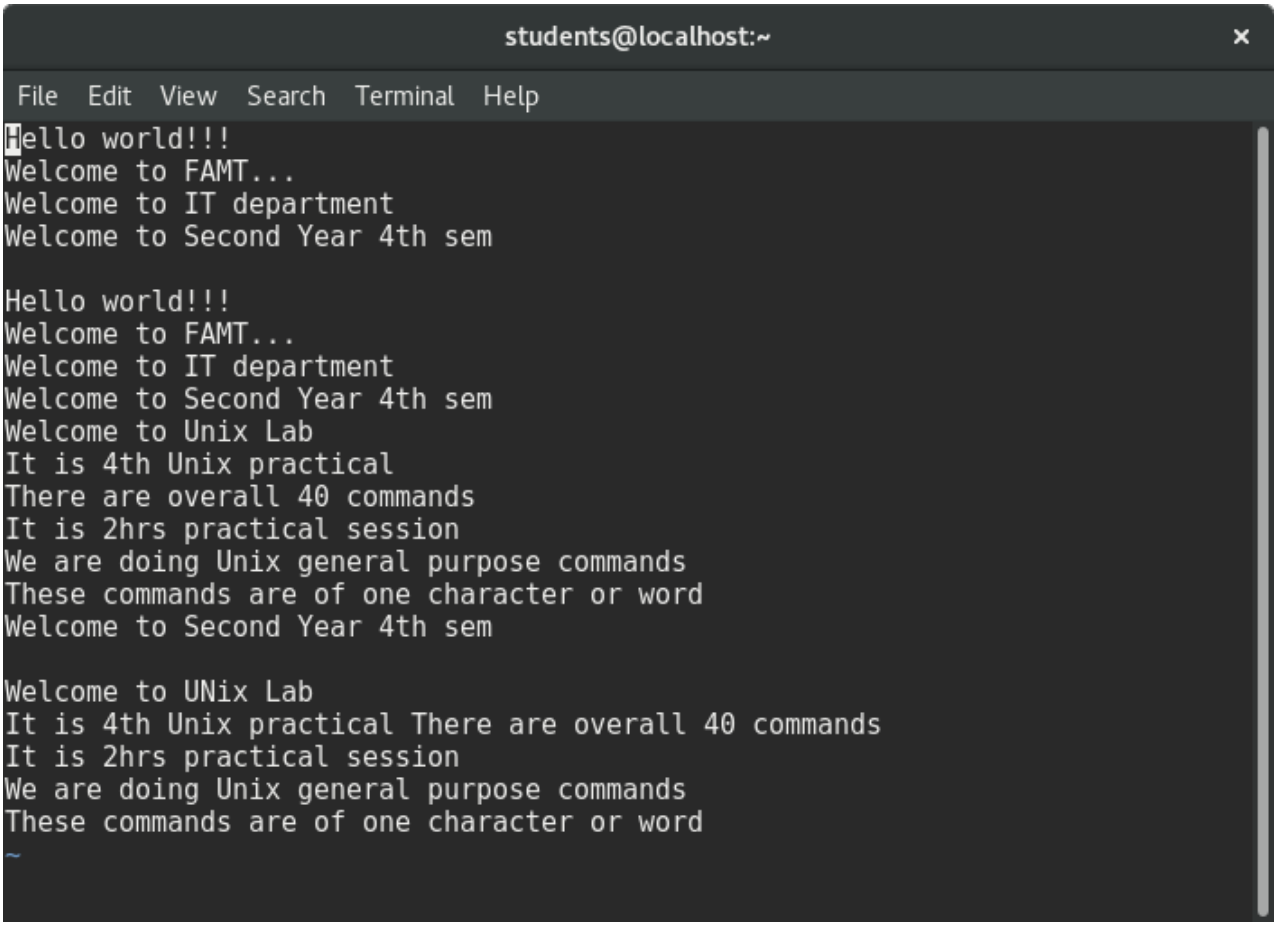
VII) Changing Text



IX) Edit file commands



X) Refresh screen including files



11. Learning Outcomes Achieved

Learned basic UNIX general purpose commands.

12. Conclusion:

Thus we have studied the Vi editor and its important commands.

13. Experiment/Assignment Evaluation

SR	Parameters	Weight	Excellent	Good	Average	Poor	Not as per requirement
		Scale Factor ->	5	4	3	2	0
1	Technical Understanding	25					
2	Performance / Execution	25					
3	Question Answers	20					
4	Punctuality	20					
5	Presentation	10					
	Total out of 100 --> #(to be converted as per term-work evaluation applicable to the subject)		**∑ (Weight * Scale Factor)/5 = _____**				

References:

[1] Unix, concepts and applications by Sumitabha Das, McGraw-Hill

[2] Mastering Shell Scripting, Randal. K. Michael, Second Edition, Wiley Publication

Viva Questions

- What is Vi editor?
- What are the applications of Vi editor?
- What are the basic commands of Vi editor?