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CTS-120-841-Lab Module 7

- In this lab you will work in vi and answer questions.

- Save the lab as a PDF, naming it:

  - *FirstName_Lastname-Module#-Lab.pdf*

- Here is a link to a vi cheat sheet that may be useful
  - http://www.lagmonster.org/docs/vi2.html

Thanks to Jongyeop Kim from Oklahoma State University for this lab – with some modifications

You will type in the indented and **bolded** lines below starting with "**The The vi editor**...".

- This is text to be entered into the file whose filename is **practice**.
- Enter the text exactly as it appears, typos included.
- Type in the paragraph as you see it.
- There are errors in the paragraph but these will be fixed later as you learn how to use the vi editor.
- Don't type in the <cr> that is where you hit **ENTER**
- Do not press the **Enter** key until the <cr> symbol appears in the text .
- If you make a mistake and you are on that particular word, you can press the "backspace" key to fix that error as you go along.
- Don't worry if you make other errors. You can fix them later after you have learned more about the Vi editor.
- Don't forget to press the i key to get started inserting text!

The The vi editor is a fill editor that allows you to move the cursor around the entire screen when you are in <cr> the command mode. You can do this by <cr>

(1)typing certain unique key sequences, <cr>

(2)or you can move from one line to another or over one or more spaces <cr> ona line by using the h j k l

keys. <cr>

The h key moves the cursor to yhe left, l moves the currsor to the left, <cr> j moves the cursor down one line and k moves up two lines.<cr>

Delete line 1.<cr>

Delete line 2. <cr>

Delete word word 1. <cr>

Delete delete word 2.<cr>

You can also move lines to a new location by using the "y" for yank. <cr>

It will copy your line or lines to a buffer and you can then place it <cr>

somewhere else by using the "p" for the put command.

After you have completed the paragraph, press the <esc> key. The "INSERT MODE" message should now be gone from the bottom of the screen.

Saving the Document

Before you do anything else, you should save the document.

Issue the command: **:w**

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• Issue the command: :w
1. What was printed on the screen?
The file name , the number of lines and number of characters "practice.txt" 12L, 694C

Making Changes in the vi editor

You are ready to make changes now that you are in the command mode. Note that sometimes you continued onto the next line of the editor <u>before</u> you are asked to use the "<cr>" key. In the vi editor, a line is considered to be one line until the <cr> key is used, even if there is more than one line of typing

before you use the <cr> key. If you kept on typing the entire paragraph and did not press the carriage return, you would have a paragraph that is considered one line long! This is significant when you make changes using the keys that move you up one line or below one line.

Using the command mode to make changes in your file

You will be using various commands in this part of the lesson. UNIX is case sensitive, meaning that if you see a lower case letter, you must use a lower case letter and not an upper case letter as these have different meanings.

You are now ready to get some practice using the command mode. **NOTE:** If you make a mistake, you can "undo" the mistake by immediately issuing the undo command by entering **u**. If you enter a command other than **u** after the command causing the mistake, the shortcut undo won't work.

Moving to the top or bottom of the document

In some cases you will use different methods to make the same changes; thus, you can compare them and select the one(s) you find easier to use. Move the cursor to the home line (top of document) of the work buffer by issuing the vi editor command

H

2.   After typing the H, What character in what word is highlighted by the cursor?
The first character in very first word
H = head

Move the cursor to the last line of the work buffer by issuing the command: **L**
In the case of the "H" or "L" command, you did not have to press the enter key after you typed them in.

3.   What character in what word is highlighted by the cursor?
Bottom of screen – First character in last line "somewhere"

Moving around in the document

The **h**, **j**, **k**, and **l** keys move around one space or line at a time.

 You should be at the bottom of the document

Press the **k** key three times, now the **l** (lower case L) key three or four times , next, the **j** key two or three times, Next, press the **h** key three or four times .   4.   What happens when you do this?
Cursor moved in a little square – k was up 3 lines, l was to the right 3 spaces, J was down 3 and h went to the left – ending up where we started

You can also move one word either forward or backward at a time. In order to do this you use the w for forward and **b** for backward. Move to the top of the document. – remember how you did that from above.

Press on the **w** key three or four times, then press on the **b** key three or four times.   5.   What happens when you do this?
W advances to the next word and b goes back word by word

You now have learned how you can move to the top or bottom of the file. You also have seen how you can move around in the file one character, one line at a time, and move one word at a time.
NOTE: You can use the arrow keys instead of the h, j, k, and l keys, but past typists can be really efficient using the letters in place of arrow keys

Searching for words or sequences of letters

Move to the top of the document by typing in:

H

Now you can search for certain words or sequences of letters if you want. You can do a forward search meaning that the computer will search from the top of the document to the bottom. To do a forward search, use the "/" (the slash) followed by the word or letters you are searching for. Find the word fill by using the forward search technique. Type in the following command:

/fill <cr>

6.   What character in what word is highlighted by the cursor?
Finds the first instance of fill and highlights it in yellow

Once again search (forward) for the word fill by issuing the command:

/fi<cr>

NOTE: For a forward search, the first line of the file follows the last line of the file. Also, since there is only one occurrence of the characters fi in the text, fi can be used as the search pattern.

7.   What does it say at the bottom of the screen to let you know what the search did?
~   search hit BOTTOM, continuing at TOP

Now, move the cursor to the last line of the work buffer by typing in

L

Issue the (backward) search command: (don't forget <cr>)

?fi

NOTE: For a backward search, the last line of the file follows the first line of the file.

8.   What character is the cursor on?
The first instance of "fi" in the first line. We started at the bottom and asked for backwards – so it went to the top

Move the cursor to the last line of the work buffer. *(Remember from above?)*

Now, search backward through the text for the characters "**and**". NOTE: there are several words with "and" in them. To repeat the find command, type in:

n

The **n** will allow you to repeat the find command so you can find all uses of the characters "and". Go to the top of the document.

and, command, command, and -- It started at buffer and went backwards

Deleting words or lines

Place the cursor on the "t" in the word **"typing"** and type in:

     dw

to delete the word **"typing"**. Now undo the deletion by issuing the **undo** command:

     u

If you placed the cursor on the **t** in **typing**, the entire word was deleted.

9. What happens if you placed the cursor on the **y** instead?
It deletes "yping" leaving the "t" behind

Undo whatever you just did so that the word **typing** is still in the text.

Move the cursor to the number **(1)**. Then issue the command:

     dd

10. What happened?
It deleted the entire entry line (1)

Restore the text by issuing the **undo** command.

Next move to the line that begins with the number **(2)**. Issue the command:

     D$

11. What happened this time? Watch carefully – what goes away – hit **u** to undo if you did not see it at first
I had the cursor on the number 2 – so the first step deleted everything from the 2, leaving the opening parenthese. The $ removed the parenthese –deleting the entire line

12. From these examples, what are the differences between the two delete commands?
One deletes the line, and the other deletes everything past a certain character on a line

Issue the undo command to restore the text.

Position the cursor on the line that contains **Delete line 1**. Issue the command:

3dd

13. What happened?
It deleted the line the cursor was in and then the next 2 lines (3 lines total)uuuuuu

Issue the undo command:

 Delete the two lines containing the statements **Delete line**.

14. What ONE command did you use?
2dd

Next position the cursor to delete one of the duplicated words (**word** and **delete)** in the two remaining sentences.

15. What command did you issue to accomplish this?
6x

Copying or moving lines to other locations in a document

If you want to copy a line or lines to a new location in a document, you can do this by using the **y** for the **yank** command. The **p** for **put** is used to then place the line in the new location. Be sure that you are in the command mode.

Move to the line that starts with **(1)**. Type in the letter:
> **y** (lowercase Y)

You will not see any change at this time. But the lines with the (1) and (2) will be kept in a buffer. Now put the cursor at the beginning of the line that says **You can also move lines to a new location by using the "y" for yank.** Type in:
> **p** (lowercase P)

16. What are the results?
Both the lines (1) and (23) were inserted after the word Yank

The **y** will copy two lines. The **p** should place two lines **after** the line listed above. Now remove the two lines by typing in:
> **d** <cr>

Make sure you are still on the (1) line

Next, go back up to the line that starts with the (1). Type in:
> **yy** (lowercase YY)

Next, move the cursor to the line that starts with: **You can also move lines to a new location by using the "y" for yank.** Type in:
> **P** (uppercase P)

17. What happened this time
It only inserted one line (1) not two

The **yy** will only yank one line just the same as the **dd** only removes one line. The **P** will put the line **before** the line containing the cursor.

You can also copy more than one line at a time if you want by using the **nyy** where the "n" is the number of lines you want to copy. Try this out by moving to the beginning of the line:
> **You can also move lines to a new location by using the "y" for yank.**

This time, type in:
> **3yy**

Next move to the line with the (**2**) in it. Place your cursor on that line. Type in:
> **p** (lowercase P)

18. What happened this time
It yanked added 3 lines after the cursor

Changing words and other error corrections

Next, look over the text to correct any other errors present. Note that both the **h** and the **l** key say that they move to the left. Only one of them moves to the left--the "l" key moves to the right. You can change this by using the **cw** command as you used before. You can also use the **"R"** for replace word. Position the cursor on the letter "l" in left. Then, type in:

Rright

19. What message did you see at the bottom of your screen?
REPLACE

Make sure you go back to **Command Mode**

Also the word, **currsor** is spelled wrong. Remove the extra "**r**" in currsor.

20. What command did you use to fix this problem?
%s/Currsor/cursor/g

Next, go search for the pattern " **ona"**.
There is supposed to be a space between the "on" and the "a".
 Place your cursor on the letter "n" . Next, type in "**a**" for append.

21. What happens to the cursor and what message do you get on the bottom of the screen?
I got Insert – but I think that is wrond – should be append

Press the space bar next. What key do you have to press to get out of the "**Append Mode**"?

22. What key do you have to press to get out of the "**Append Mode**"?
Esc

Adding new lines

Move to the line that starts with **"Delete word 1".** Get the cursor on the "**D**" in Delete. Type in:

O (This is capital O----not zero)

23. What happened when you typed in the "**O**"?
Added a blank line to the text

You have opened a new line **above** the line that you were just on. You are already in insert mode. You are now ready to type in these next three lines:

If you want to open a new line above, you can press the "O" key. <cr>
If you want to open a new line below the line you are on, <cr>
press the "o" (lower case "o") key. <esc>

Joining lines together

Another feature that may be useful is to join two lines together. Go to the end of the line that says "If you want to open a new line below the line you are on,". Put the cursor on the "," on that line. Type in:

J

Note that this is the capital "**J**".

24. What happens when you do this?
It joined the line below it to the line where the cursor was

Saving your file

Next, save your file so it will be available to you the next time you need it. After correcting the errors, issue the command:

:wq

The **wq** stands for "write" and "quit". You used the **":w "** earlier to save the file and continue editing.