

## INFORMATION TECHNOLOGY EDUCATION DEPARTMENT

**IOS 102 LAB**

**(Operating Systems Laboratory)**

**<LABORATORY SCHEDULE>**

EXERCISE

5

**vi editor and File Reader Commands**

<STUDENT NAME 1>

<STUDENT NAME 2>

DATE

**Experiment No. 5: vi editor and File Reader Commands**

**Objectives:**

In this experiment, the students are expected:

* to utilize vi text editor in creating files
* to use basic directory commands
* to exploit various file readers commands

***Note: Save this file as surname1\_surname2\_expt5.docx***

**Discussion:**

**vi Editor**

You can use **vi** editor to edit an existing file or to create a new file from scratch. You can also use this editor to just read a text file.

**Starting the vi Editor:**

There are following way you can start using vi editor:

|  |  |
| --- | --- |
| **Command** | **Description** |
| **vi filename** | Creates a new file if it already does not exist, otherwise opens existing file. |
| **vi -R filename** | Opens an existing file in read only mode. |
| **view filename** | Opens an existing file in read only mode. |
| **:f filename** | Renames current file to filename. |

Following is the example to create a new file **testfile** if it already does not exist in the current working directory:

$vi testfile

As a result you would see a screen something like as follows:

* ~
* ~
* ~
* ~
* ~
* "testfile" [New File]

You will notice a tilde (~) on each line following the cursor. A tilde represents an unused line. If a line does not begin with a tilde and appears to be blank, there is a space, tab, newline, or some other non-viewable character present.

So now you have opened one file to start with. Before proceeding further let us understanding few minor but important concepts explained below.

**Operation Modes:**

While working with vi editor you would come across following two modes:

**Command mode:** This mode enables you to perform administrative tasks such as saving files, executing commands, moving the cursor, cutting and pasting lines or words, and finding and replacing. In this mode, whatever you type is interpreted as a command. You type ALT+SHIFT: to shift to command mode.

**Insert mode:** This mode enables you to insert text into the file. Everything that's typed in this mode is interpreted as input and finally it is put in the file.

The **vi** always starts in command mode. To enter text, you must be in insert mode. To come in insert mode you simply ***type i***. To get out of insert mode, press the Esc key, which will put you back into command mode.

**Hint:** If you are not sure which mode you are in, press the Esc key twice, and then you'll be in command mode. You open a file using vi editor and start type some characters and then come in command mode to understand the difference.

**Getting Out of vi:**

The command to quit out of vi is ***:q***. Once in command mode, type colon, and 'q', followed by return. If your file has been modified in any way, the editor will warn you of this, and not let you quit. To ignore this message, the command to quit out of vi without saving is ***:q!***. This lets you exit vi without saving any of the changes.

The command to save the contents of the editor is ***:w***. You can combine the above command with the quit command, or ***:wq*** and return.

The easiest way to save your changes and exit out of vi is the ZZ command. When you are in command mode, type ZZ and it will do the equivalent of :wq.

You can specify a different file name to save to by specifying the name after the :w. For example, if you wanted to save the file you were working as another filename called filename2, you would type ***:w filename2*** and return. Try it once.

**I. Tasks / Procedure / Instructions:**

**Part I. How to use vi editor in creating files.**

**To create a file using vi editor:**

1. Type vi then followed by a filename

For example:

$***vi file1***

Press ***insert key*** to input text

Type ***“Hello World!”***

To save and quit, press ***ALT+SHIFT:*** then type ***wq***

***Note:***

***w – save***

***q – quit***

Paste your captured executed command and output below.

2. To display the content of file1, type ***cat file1***.

Paste your captured executed command and output below.

3. Using vi text editor, create a file named ***command*** that contains the answers of the given questions below:

* What are the two (2) operation modes of vi editor?
* What command is used to enter in the vi text editor?
* What key is used to accept input text in the vi?
* How do you save and quit the file *hello* in vi?

Display the content of ***command*** file.

Paste your captured executed command and output below.

4. Using vi text editor, create a new file named ***file1*** and write the answers of the given questions below:

* What command is used to display the content of a certain directory?
* What command is used to display the content of a certain directory with long list?
* What command is used to delete empty directories from the file system?
* What command is used to display the current working directory?

Display the content of ***file1*** file.

Paste your captured executed command and output below.

5. Create a directory named **Folder1** at your default directory.

Paste your captured executed command and output below.

6. In one line of command, create another directory with a subdirectory and name it as respectively **FolderA/FolderB** inside the directory **Folder1**.

Paste your captured executed command and output below.

7. Using cat command, create a copy of the file ***file1*** using the filename ***fileA****.*

Paste your captured executed command and output below.

8. Move the ***fileA*** in the **Folder1**.

Paste your captured executed command and output below.

9. Using the cat command, combine the contents of the files ***command*** and ***file1*** to a file named ***answers***

Paste your captured executed command and output below.

10. Create a copy of the file ***answers*** from the working directory to the **Folder1** directory. List the content of your **Folder1** directory.

Paste your captured executed command and output below.

11. Rename the file ***answers*** in your **Folder1** directory to a new file name ***final.*** List the content of your **Folder1** directory.

Paste your captured executed command and output below.

12. Using vi text editor, create a file named ***fileB*** that contains the answers of the given questions below:

* What command is used to clear the screen display?
* What command is used to display the previously entered commands?
* What command is used to pages through the text of a file “one screen at a time”?
* What command is used to navigate through the file. Can go down or go back to the previous page?

Display the content of ***fileB*** file.

Paste your captured executed command and output below.

13. Create a new file named ***fileC*** using the cat command and write the answers of the given questions below:

*Note: Give the complete syntax or format*

* What command is used to delete empty directories from the file system?
* What command is used to display the current working directory?
* What command is used to display description of a certain command?
* Does Linux commands are case-sensitive? Yes or No?

Display the content of ***fileC*** file.

Paste your captured executed command and output below.

14. Save all your executed commands using ***history*** command using the filename ***his***.

Paste your captured executed command and output below.

15. Display the first 5 lines of the file ***his***?

Paste your captured executed command and output below.

16. Display the last 5 lines of the file ***his***?

Paste your captured executed command and output below.

17. Count the number of lines of the file ***his***?

Paste your captured executed command and output below.

18. Count the number of words of the file ***his***?

Paste your captured executed command and output below.

19. Count the number of characters of the file ***his***?

Paste your captured executed command and output below.

20. Using vi editor, write your observation and conclusion about this experiment. Use the filename ***observation*** when saving the file. Display the content of the said file.

Paste your captured executed command and output below.