# IT 1100 : Introduction to Operating Systems

# Chapter 12

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## Text Editors

There are two types of text editors: GUI based and Text based.

`GUI based` editors only work on GUI based systems.

`Text based` editors work on both GUI and CLI systems.

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## Text Editors

Learning a text based editor is useful. You will always be able to edit files whether you are at a text based Terminal or a GUI based Desktop. Sometimes you will be logged into a system that doesn't offer the GUI and you will need to know a text-based editor.

Anytime you learn a new text editor there are a few basic things you should know how to do.

- Open a file
- Edit a file
- Save a file
- Exit the program

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## Text Editors - Nano

- Nano
  - Nano comes pre-installed with Linux.
  - It is a basic text editor.
  - This is probably the easiest editor to learn.
  - The most common shortcuts are listed at the bottom of the editor screen.
  - Open a file: `nano sauce.txt`
  - Edit a file: There is nothing special. Just start typing.
  - Save a file(aka Write Out): `ctrl-o`
  - Exit the program: `ctrl-x`

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## Text Editors - VIM

- VI / VIM
  - VI comes pre-installed with most Linux distributions.
  - VI and the enhanced version VIM are a text based editor.
  - VIM is also available in a GUI version as an add on program.
  - It is mode based. It has 3 main modes - normal mode , insert mode and visual mode.
  - It uses commands to navigate and simplify the text editing experience instead of a mouse and buttons to click.
  - This is the editor you will learn in this class.

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## Text Editors - VIM commands

```
* Open a file: `vi sauce.txt`
* Edit a file: type `i` to enter insert mode. Start typing.
* Use commands: type `esc` to return to normal mode.
* Save a file: `:w`
* Exit the program: `:q`
```

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## Text Editors - Emacs

- Emacs
  - Emacs does not come pre-installed with Linux.
  - It is a very popular and very powerful editor.
  - It uses shortcuts to navigate and simplify the text editing experience.
  - It comes in both Text based and GUI based versions.

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## Text Editors - Emacs commands

```
* Open a file: `emacs sauce.txt`
* Edit a file: Again, nothing special. Just start typing.
* Save a file: `Ctrl-x, Ctrl-s`
* Exit the program: `Ctrl-x, Ctrl-c`
* Cancel a half completed Shortcut: `Ctrl-g`
* Undo: `Ctrl-x, u`
```

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## Text Editors - Gedit

- Gedit
  - Gedit is a GUI based editor that comes pre-installed with your GUI installation.
  - It can only run on a GUI based version of Linux.

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## Editor notes

Editing a file is the same command format no matter which editor you choose. And any text editor can open and edit any text document created by another editor.

`editor-name filename`

- vi testing.txt
- vim testing.txt
- gvim testing.txt
- nano testing.txt
- emacs testing.txt
- gedit testing.txt

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## Editor notes

Opening a file with a text editor will automatically create the file if it doesn't already exist. This is very helpful when you want to create a new file, but can be troublesome if you are trying to edit an existing file and have a typo in the name or an incorrect path. Linux can't tell the difference.

**If you open a file for editing and expect to find text inside of it but see a blank file instead - first thing to do is close the file and check the spelling and path of the file you are trying to edit. If you don't know the correct path - try using the `find` command.**

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## Optional Reading

The following resources are optional if you want to learn more

- vimtutor (It's the built in Linux tutorial. Type the command to begin)
- vim-adventures.com
- Vi/Vim Reference Card Front
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## Optional Reading (More)

- Emacs Tutorial
- Emacs Manual
- Emacs Reference Card
- Gedit Homepage
- Nano Basics

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## Textbook Time

- There will be no textbook reading for this section.
- Go to the openvim.com website and complete the tutorial.

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