



HY-255

Emacs Tutorial

Overview

- ▶ What is Emacs?
- ▶ Emacs Basics
- ▶ Emacs built-in advanced functionality
- ▶ How to extend Emacs?
- ▶ Extending Emacs beyond this tutorial

Emacs: Basics

- ▶ Emacs is a Lisp Interpreter
- ▶ Emacs has GUI and TUI interfaces
- ▶ Compared to Vim there are no modes
- ▶ Do the Emacs Tutorial

Emacs: Keybinds

- ▶ Emacs depends on two specific keyboard keys to initiate most operations Ctrl and Alt
- ▶ Ctrl or C- usually executes operations that manipulate a small range of text
- ▶ Alt (Meta) or M- executes operations that manipulate a wide range of text

Emacs: Navigation

- ▶ C-b,C-n,C-p,C-f or arrows : Move the cursor left, down, up and right
- ▶ Shift or C-SPC : Mark text
- ▶ C-x C-f : Search and open a file
- ▶ C-x b : Open buffer list and visit file
- ▶ M-g g <number> : Go to line in file
- ▶ M-< : Go to first line of file
- ▶ M-> : Go to last line of file

Emacs: Save and Quit

- ▶ C-x C-s : To save the current file
- ▶ C-x s : Save multiple files at once
- ▶ C-x C-w : To save the current file under a different name (preserves current file)
- ▶ C-x k : Close current file
- ▶ C-x C-c : Exit Emacs

Emacs: Copy, Paste and Undo

- ▶ M-w : Copy text
- ▶ C-y : Paste text
- ▶ C-w : Cut text
- ▶ C-k : Delete text from the cursor to the end of line
- ▶ C-/ : Undo Text

Emacs: Search

- ▶ C-s : Search Forward
- ▶ C-r : Search Backward
- ▶ Important Note both commands wrap around if they reach the start/end of file
- ▶ M-x query-replace: Insert text to find and then text to replace

Emacs: Windows

- ▶ C-x 1 : Kill all windows except the one the cursor is in
- ▶ C-x 2 : Split window below
- ▶ C-x 3 : Split window right
- ▶ C-x o : Go to other window
- ▶ M-x follow-mode : Create 2 windows and execute follow mode in one of them and then start scrolling.
- ▶ M-x windmove-default-keybindings : Jump to left, right, up, down window using Shift-`{left,right,up,down}` arrows

Emacs: ctags

- ▶ `ctags -e -R .` : Generate TAGS file readable by Emacs
(Do not forget `-e`)
- ▶ `M-.` : Jumps to definition of the current variable/struct/function
- ▶ `M-?` : Finds references of the current variable/struct/function
- ▶ `M-x imenu` : Find all functions in a file and jump into the function
NOTE : When using `imenu` you don't need `ctags` to jump around

Emacs: Dired

- ▶ M-x dired: To open the directory editor in a specific directory
- ▶ ? : To see the keybinds for the dired-mode
- ▶ d: Mark a file for deletion
- ▶ u: Undo mark
- ▶ x : Execute marks on marked files
- ▶ f : Open file under cursor in the same window
- ▶ o : Open file under cursor in a new window
- ▶ R : Rename file under cursor
- ▶ C : Copy file under cursor
- ▶ h : help to discover more advanced features of dired mode

Emacs: External Plugins

- ▶ To install plugins in Emacs you can use `M-x package-install` and then install the package you are interested. This is not convenient because if you move to another machine you will have to install by hand all the plugins. For this reason, `use-package` comes to the rescue.
- ▶ `use-package` is a plugin developed by Emacs maintainers that automates the plugin download by only providing the package name!

Emacs: External Plugins

- ▶ helm : For incremental completion menus
- ▶ flycheck : For syntax checking
- ▶ company : For autocomplete
- ▶ yasnippets : For code snippets and fast code writing
- ▶ smartparens : For balanced parentheses
- ▶ whitespace mode: To see trailing whitespaces
- ▶ ethan-wspace : For trailing whitespace cleanup
- ▶ aggressive-indent : To autoindent code as you write

Extra Material

- ▶ Plugin Repository:
 - ▶ Melpa : <https://melpa.org/>
- ▶ Plugins categorized:
 - ▶ Awesome Emacs: <https://github.com/emacs-tw/awesome-emacs>
- ▶ Noteworthy Plugins :
 - ▶ magit : <https://github.com/magit/magit>
 - ▶ lsp-mode : <https://github.com/emacs-lsp/lsp-mode>
 - ▶ org-mode : <https://orgmode.org/>
 - ▶ projectile : <https://github.com/bbatsov/projectile>
- ▶ Emacs Distributions to check:
 - ▶ Doom Emacs : <https://github.com/hlissner/doom-emacs>
 - ▶ Spacemacs : <https://github.com/syl20bnr/spacemacs>
 - ▶ Prelude : <https://github.com/bbatsov/prelude>