# **Creative Software Programming**

Lab1: Supplement Material - Vim Advanced Usage

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# Shell settings for convenient vim use - 1

- set completion-ignore-case on
  - bash (shell) has an autocompletion function (by pressing <a href="tab">tab</a> key), and it is convenient to make this autocompletion case insensitive.
  - Just add "set completion-ignore-case on" to your .inputro
     file. You can do it like this:

```
(Shell - home directory)
echo 'set completion-ignore-case On' >> ~/.inputrc
```

- Close and reopen the terminal to see it apply.

## Shell settings for convenient vim use - 2

- stty -ixon
  - This setting allows you to use the shortcut keys used with Ctrl in vim.

 Just add "stty -ixon" to your .bashrc. You can do it like this:

```
(Shell - home directory)
echo 'stty -ixon' >> ~/.bashrc
```

Close and reopen the terminal to see it apply.

# Install vim-gtk

• The vim version installed by default on Ubuntu is a vim-tiny version without many useful features.

• Run the following command to install vim-gtk, which contains most of the functionality.

#### (Shell)

sudo apt-get install vim-gtk

### Vim configuration - .vimrc

- You can change various settings of Vim through .vimrc file in your home directory.
- vimrc is written in Vim's own scripting language called vim script.
  - Comment starts with "
  - For more detail, refer <a href="http://learnvimscriptthehardway.stevelosh.com/">http://learnvimscriptthehardway.stevelosh.com/</a>
- Since there is no .vimrc file at first, let's start editing the .vimrc file with the following command in your home directory:

#### (Shell)

vi .vimrc

### Recommended minimal settings for .vimrc

#### .vimrc

```
syntax on "use syntax highlighting
filetype plugin indent on "use auto-indentation

set expandtab "use spaces instead of a tab
set tabstop=4 "number of spaces for a tab
set shiftwidth=4 "number of spaces for each step of indent (e.g. when using '>' or '<')

set nowrap "stop line breaking
set clipboard=unnamedplus "use system clipboard (e.g. when using 'yy')
set ignorecase "case-insensitive search
set incsearch "use incremental search

"disable automatic comment insertion
autocmd FileType * setlocal formatoptions-=c formatoptions-=r formatoptions-=o
```

- After updating .vimrc, enter :so% to apply the updated settings. Try to modify and apply the above file.
- The above file contains minimal items, so feel free to modify / add / remove any settings you want.

### Vim Visual Mode

### Marking text (visual mode) https://vim.rtorr.com/l

- v start visual mode, mark lines, then do a command (like y-yank)
- V start linewise visual mode
- Ctrl + v start visual block mode
  - In the .vimrc file, mark a block and copy (y), paste
    (p), and so on.

### Vim Windows

### Working with multiple files

- Ctrl + ws split window
- Ctrl + ww switch windows
- Ctrl + wq quit a window
- Ctrl + wv split window vertically
- Ctrl + wh move cursor to the left window (vertical split)
- Ctrl + wl move cursor to the right window (vertical split)
- Ctrl + wj move cursor to the window below (horizontal split)
- Ctrl + wk move cursor to the window above (horizontal split)

https://vim.rtorr.com/

 Split your .vimrc file into multiple windows and move between them.

## Vim Plug-ins

- Many plugins are available to extend Vim's functionality.
  - https://vim.sourceforge.io/scripts/script\_search\_results.p
     hp?keywords=&script\_type=&order\_by=rating&directio
     n=descending&search=search

• You can download and use plug-in files directly, but using "vim plugin managers" is much more convenient to install and manage plug-ins.

# Install vim-plug

- One of the most popular vim plugin manager
- https://github.com/junegunn/vim-plug
- To install it, you need to install git first and then configure it initially.
- Replace the gray part below with your information.

#### (Shell)

```
sudo apt-get install git
git config --global user.name "Your Name"
git config --global user.email "you@example.com"
```

 Install vim-plug following the instructions on the page above.

# Using vim-plug

- Let's install two most useful plugins.
  - Add the following lines to .vimrc and save it, and type :so% and :PlugInstall

```
.vimrc

call plug#begin()
Plug 'scrooloose/nerdtree'
Plug 'scrooloose/nerdcommenter'
call plug#end()
```

- To install other plugins, you can add them like Plug '<Github account name> / <Github project name>'.
  - Most Vim plugins are maintained on Github.
  - e.g.) NERDTree <a href="https://github.com/scrooloose/nerdtree">https://github.com/scrooloose/nerdtree</a>

#### **NERDTree**

• Plugin that allows directory browsing on Vim.

• How to run: Enter: NERDTree in Vim and press Enter

• Go to the NERDTree window and press? to test its functions.

#### **NERD Commenter**

- Plugin that provides comment / uncomment function for various programming languages.
- Let's add a new shortcut by adding the following to .vimrc:

#### .vimrc

- After reloading .vimrc by typing :so%,
- ,c : comment
- ,x : uncomment

### Vim colorscheme

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```

### Install Vim colorscheme

• A colorscheme can be installed like a plugin

- Let's install two most popular colorschemes.
  - Add the following bold lines to .vimrc and save it, and type :so% and :PlugInstall

```
.vimrc

call plug#begin()
Plug 'scrooloose/nerdtree'
Plug 'scrooloose/nerdcommenter'
Plug 'vim-scripts/xoria256.vim'
Plug 'vim-scripts/peaksea'
call plug#end()
```

## **Apply Vim colorscheme**

- Add the following lines to .vimrc to apply an installed colorscheme.
  - Add the following lines to .vimrc and save it, and type
    :so%
  - Apply another colorscheme by changing commented / uncommented lines.

#### .vimrc

colorscheme xoria256 "colorscheme peaksea

#### **More Colorschemes?**

- http://vimcolors.com/
- <a href="https://vim.sourceforge.io/scripts/script\_search\_results.php?keywords=&script\_type=color+scheme&">https://vim.sourceforge.io/scripts/script\_search\_results.php?keywords=&script\_type=color+scheme&</a>
  order\_by=rating&direction=descending&search=search
- Googling 'vim colorscheme'

• Find the address of a colorscheme's Github project and add it between plug#begin() and plug#end().