

"Vim the IDE"



about.txt

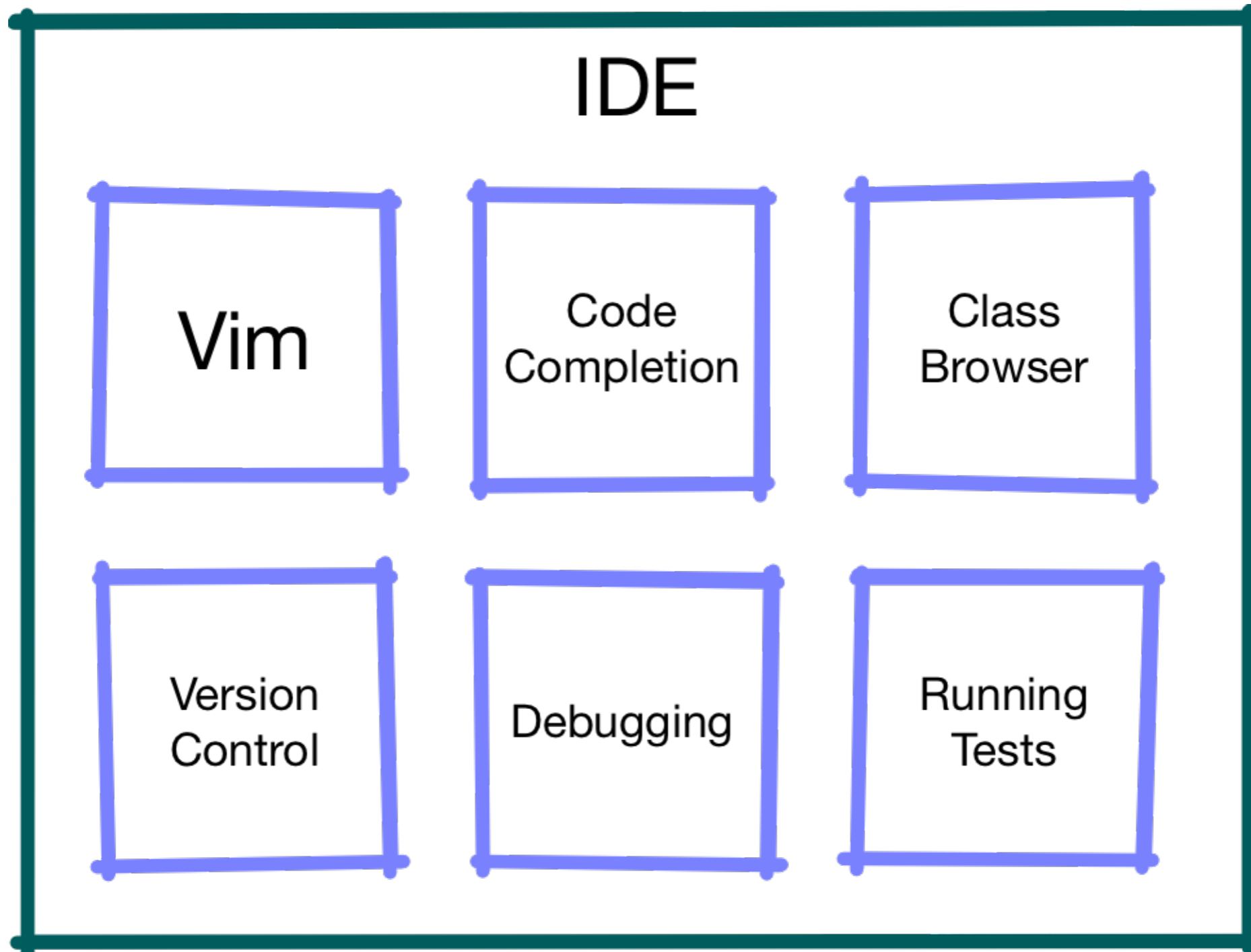
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- Software Engineer @ Yelp in Hamburg

disclaimer: opinions expressed are solely my own and do not express the views or opinions of my employer.

"Vim the Editor"



The IDE has many parts



Problems with the IDE

- too many features
- much complexity
- same with "All in 1 Vim Builds"

IDE Goals



A Venn diagram consisting of three overlapping circles arranged horizontally. Each circle is outlined in a teal color. The left circle is labeled 'Navigation', the middle circle is labeled 'Editing', and the right circle is labeled 'External Interactions'. The circles overlap in pairs and all three overlap in the center.

Navigation

Editing

External
Interactions

Navigation

Finding things

- in the current file
- other files
- searching via regex, symbols, or simple terms

You clone a new project and either

- know where you are going
- want to find someplace to go

Finding Things

- ctrlp <https://github.com/ctrlpvim/ctrlp.vim>
- py-matcher to increase speed <https://github.com/FelikZ/ctrlp-py-matcher>

The main fuzzy (and regex compatible) way to jump between files.

Nearly instant with 60K files (linux source).

```
README
> tools/perf/tests/make
tools/perf/tests/pmu.c
tools/perf/tests/bpf.c
tools/perf/tests/Build
tools/perf/tests/llvm.h
tools/perf/tests/llvm.c
tools/perf/tests/expr.c
tools/perf/tests/attr.c
tools/perf/tests/clang.c
tools/perf/tests/attr.py
mru files buf <-->
>>> tests_
```

- go jump to file map gj
- buffer switching map gb
- recent files map gr

Project Navigation

- NERDTree <https://github.com/scrooloose/nerdtree>
- NERDTree Tabs <https://github.com/jistr/vim-nerdtree-tabs>
- vim-vinegar <https://github.com/dhruvasagar/vim-vinegar>

Always quickly available with '-' key.
Easy to switch to files in the same directory or see where you are.

README ~/D/linux-4.13.3 |

```

1 Linux kernel
2 =====
3
4 This file was moved to Documentation/admin-guide/README.rst
5
6 Please notice that there are several guides for kernel developers.
7 These guides can be rendered in a number of formats, like HTML or
8 LaTeX.
9 In order to build the documentation, use ``make htmldocs`` or
10 ``make pdfdocs``.
11
12 There are various text files in the Documentation/ subdirectory,
13 several of them using the Restructured Text markup notation.
14 See Documentation/00-INDEX for a list of what is contained in it.
15
16 Please read the Documentation/process/changes.rst file, as it contains
17 requirements for building and running the kernel, and information about
18 the problems which may result by upgrading your kernel.

```

```
1 /Users/mbehrens/Download
2 ▶ .git/
3 ▶ arch/
4 ▶ block/
5 ▶ certs/
6 ▶ crypto/
7 ▶ Documentation/
8 ▶ drivers/
9 ▶ firmware/
10 ▶ fs/
11 ▶ include/
12 ▶ init/
13 ▶ ipc/
14 ▶ kernel/
15 ▶ lib/
16 ▶ mm/
17 ▶ net/
18 ▶ samples/
19 ▶ scripts/
20 ▶ security/
21 ▶ sound/
22 ▶ tools/
23 ▶ usr/
24 ▶ virt/
25 .coocciconfig
26 .get_maintainer.ignore
27 .gitattributes
28 .gitignore
29 .mailmap
30 COPYING
31 CREDITS
32 Kbuild
33 Kconfig
34 MAINTAINERS
35 Makefile
36 README
37 tags
```

```

1 Linux kernel
2 =====
3
4 This file was moved to Documentation/admin-guide/README.rst
5
6 Please notice that there are several guides for kernel develop>
7 These guides can be rendered in a number of formats, like HTML>
8
9 In order to build the documentation, use ``make htmldocs`` or
10 ``make pdfdocs``.
11
12 There are various text files in the Documentation/ subdirector>
13 several of them using the Restructured Text markup notation.
14 See Documentation/00-INDEX for a list of what is contained in >
15
16 Please read the Documentation/process/changes.rst file, as it >
17 requirements for building and running the kernel, and informat>
18 the problems which may result by upgrading your kernel.

```

```
~ [No Name]
NERDTree Menu. Use j/k/enter and the shortcuts indicated
=====
> (a)dd a childnode
  (m)ove the current node
  (d)elete the current node
  (r)eveal in Finder the current node
  (o)pen the current node with system editor
  (q)uicklook the current node
  (c)opy the current node
  (l)ist the current node
```

- easy to modify files inline
- files are easier to modify with a "GUI"

Searching for things

— vim-grepper <https://github.com/mhinz/vim-grepper>

```
:Grepper -tool rg -query "foo"
```

2 main ways to search for things:

- quickfix search
- side search, with +3 lines context

Easy visual search

```
nmap gv <plug>(GrepperOperator)
```

Jumping to symbols

vim-gutentags makes tags work
transparently

Editing

Mostly normal VIM things

- syntax highlighting
- linting
- code completion

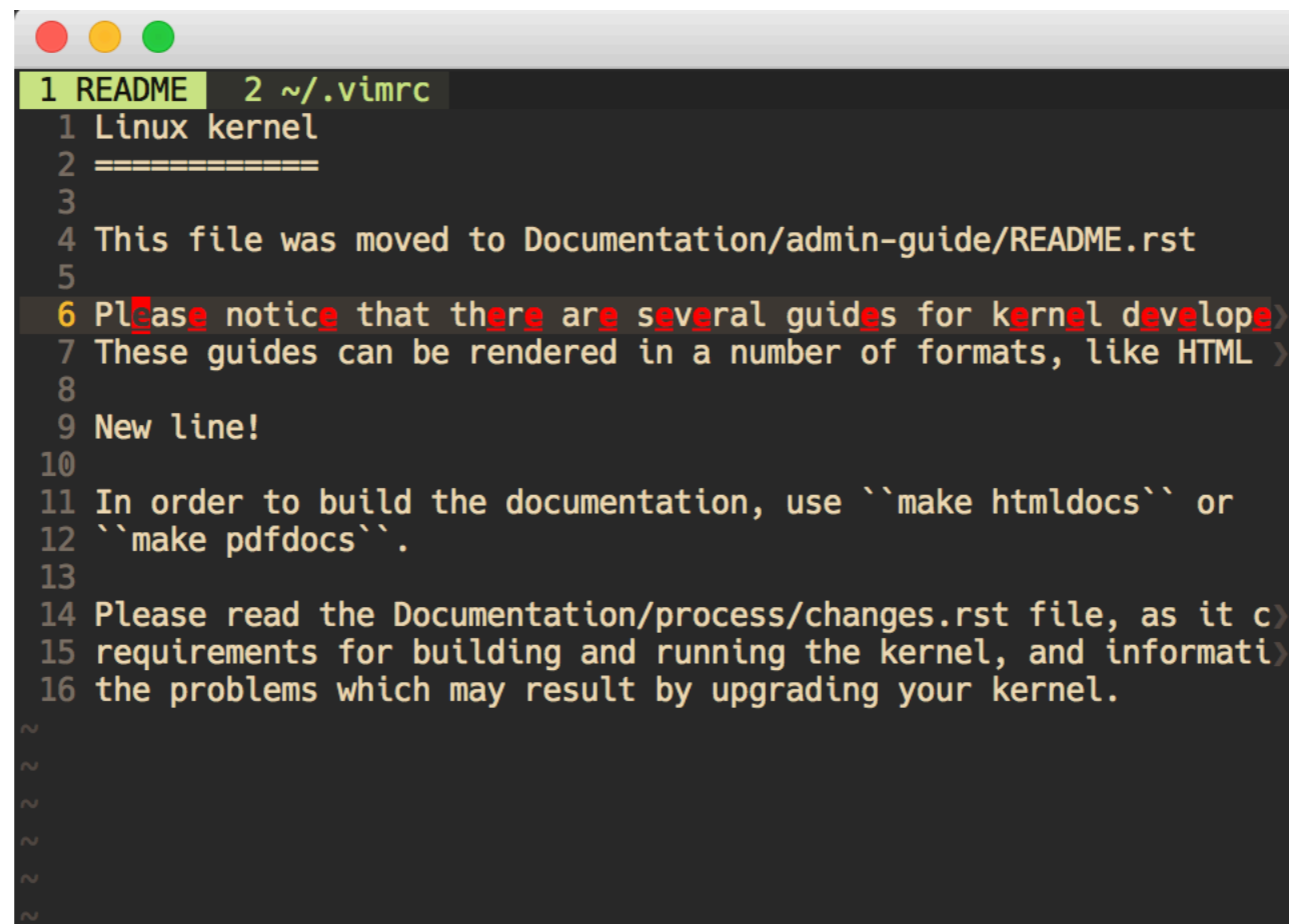
Tab Complete

- SuperTab configure Tab complete
- vim-snipmate makes snippets work
- vim-snippets default snippets for everything

Easier jumping to characters

— vim-clever-f

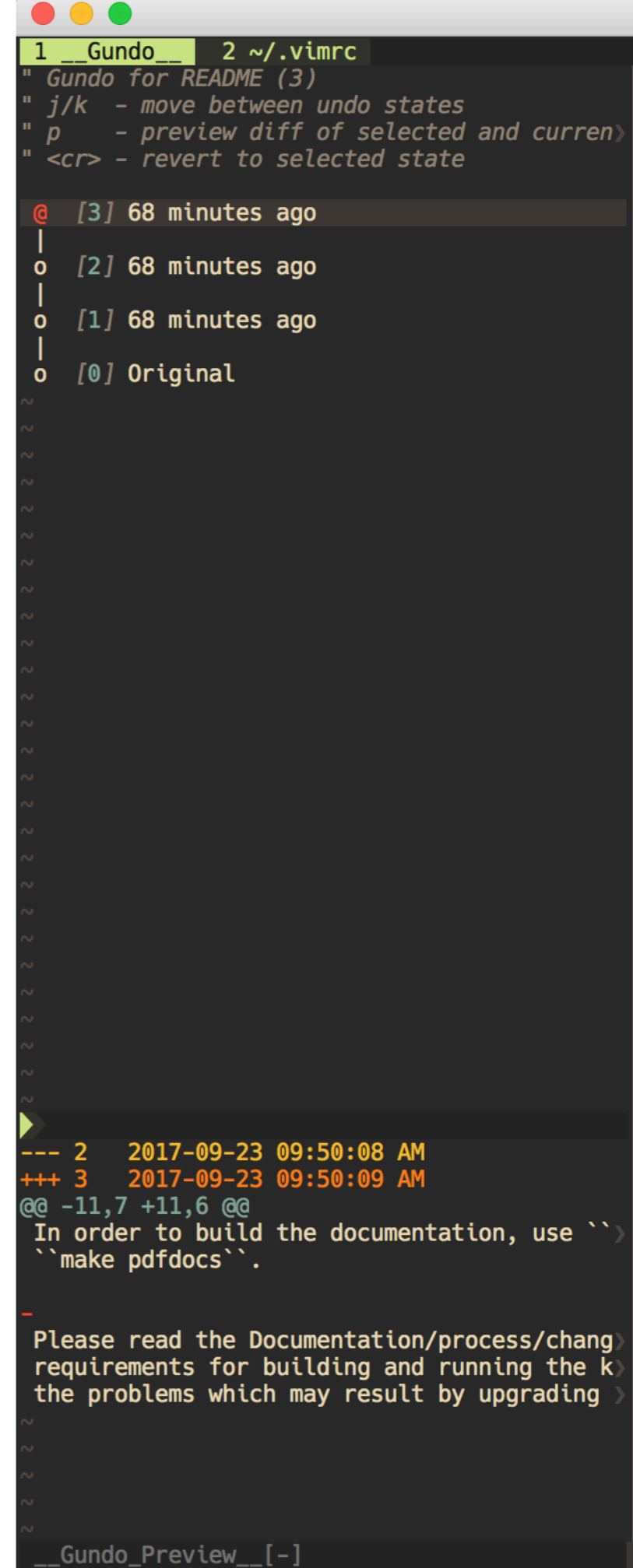
Find the next character: type fe



```
1 README 2 ~/.vimrc
1 Linux kernel
2 =====
3
4 This file was moved to Documentation/admin-guide/README.rst
5
6 Please notice that there are several guides for kernel develop>
7 These guides can be rendered in a number of formats, like HTML >
8
9 New line!
10
11 In order to build the documentation, use ``make htmldocs`` or
12 ``make pdfdocs``.
13
14 Please read the Documentation/process/changes.rst file, as it c>
15 requirements for building and running the kernel, and informati>
16 the problems which may result by upgrading your kernel.
~
~
~
~
~
~
~
```

Easy revisions

— vim-gundo



```
1 __Gundo__ 2 ~/.vimrc
" Gundo for README (3)
" j/k - move between undo states
" p   - preview diff of selected and current
" <cr> - revert to selected state

@ [3] 68 minutes ago
|
o [2] 68 minutes ago
|
o [1] 68 minutes ago
|
o [0] Original

--- 2 2017-09-23 09:50:08 AM
+++ 3 2017-09-23 09:50:09 AM
@@ -11,7 +11,6 @@
In order to build the documentation, use ``
``make pdfdocs``.

Please read the Documentation/process/changes
requirements for building and running the k
the problems which may result by upgrading >

___Gundo_Preview___[-]
```

Easy alignment

— vim-lion

Working with tag based languages

— vim-surround

External Interactions

- Building software (compiling, make)
- Version Control
- Running tests
- Debugging

Building Software

```
set makeprg=make
```

Testing!

— <https://github.com/benmills/vimux>

The future:

— <https://github.com/janko-m/vim-test>

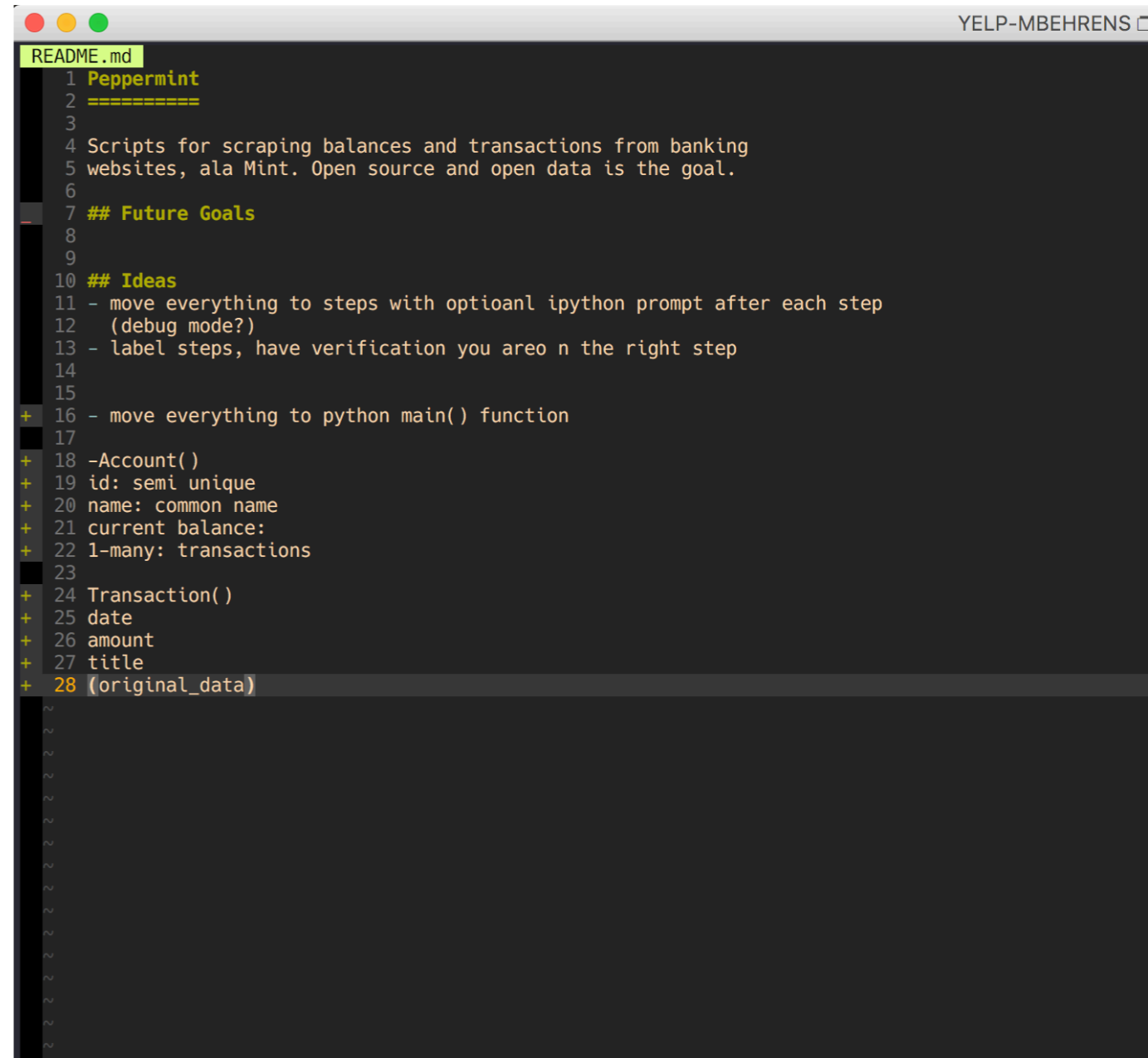
Structure your tests to mirror your code!

python/package/foo.py

tests/package/foo_test.py

Version Control

- git-gutter
- vim-fugitive



The screenshot shows a code editor window with a dark theme. The title bar at the top has three colored window control buttons (red, yellow, green) on the left and the text 'YELP-MBEHRENS' on the right. The editor is displaying a file named 'README.md'. The content of the file is as follows:

```
1 Peppermint
2 =====
3
4 Scripts for scraping balances and transactions from banking
5 websites, ala Mint. Open source and open data is the goal.
6
7 ## Future Goals
8
9
10 ## Ideas
11 - move everything to steps with optional ipython prompt after each step
12   (debug mode?)
13 - label steps, have verification you are on the right step
14
15
16 - move everything to python main() function
17
18 -Account()
19 id: semi unique
20 name: common name
21 current balance:
22 1-many: transactions
23
24 Transaction()
25 date
26 amount
27 title
28 (original_data)
```

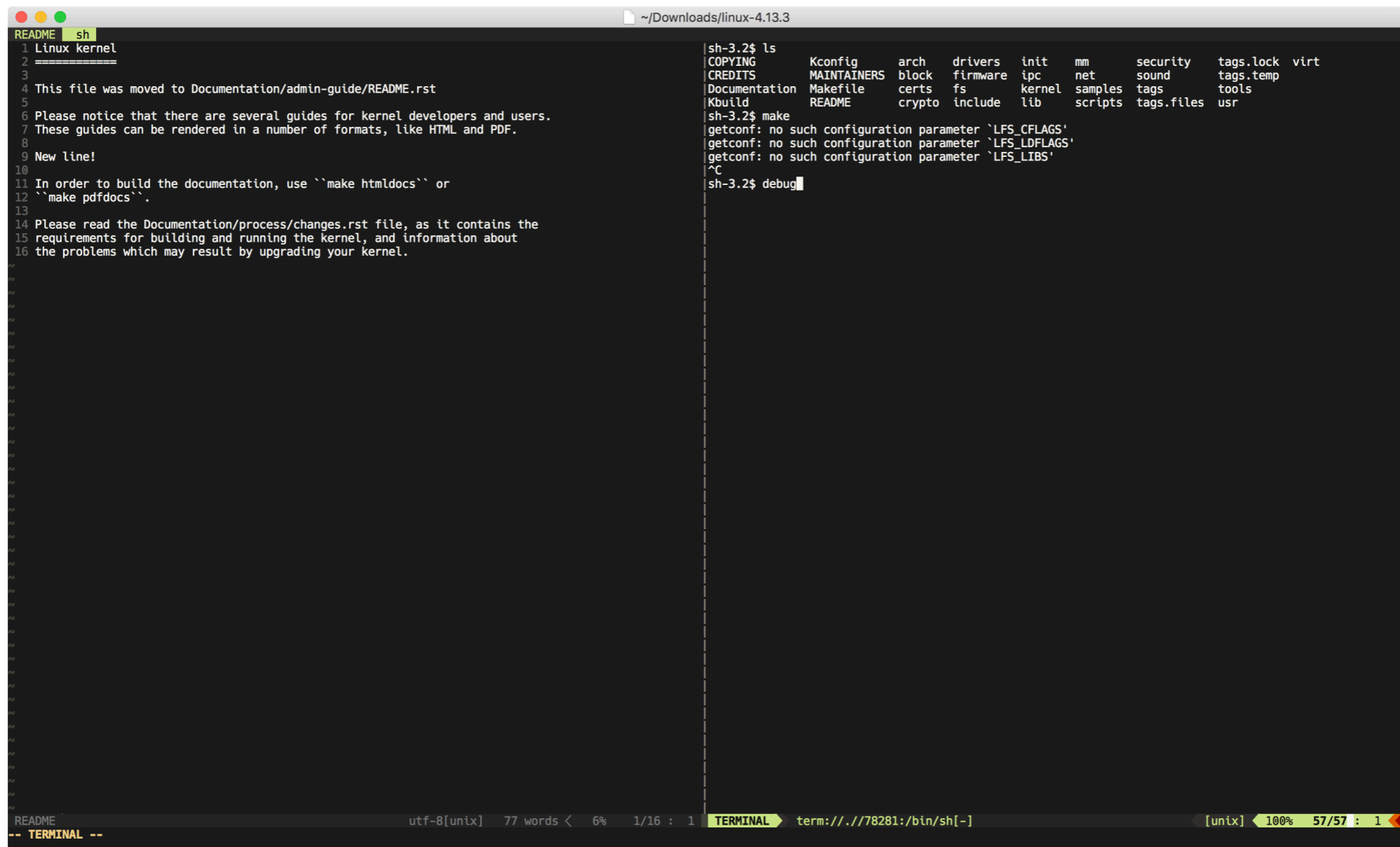
Below line 28, there are several lines of tilde (~) characters, likely representing a continuation of the file or a placeholder for more content.

Debugging

uh oh

NeoVim

The future?



The screenshot shows the NeoVim editor interface with a split view. The left pane displays a README file for the Linux kernel, and the right pane shows a terminal window running a shell.

Left Pane (README):

```
1 Linux kernel
2 =====
3
4 This file was moved to Documentation/admin-guide/README.rst
5
6 Please notice that there are several guides for kernel developers and users.
7 These guides can be rendered in a number of formats, like HTML and PDF.
8
9 New line!
10
11 In order to build the documentation, use ``make htmldocs`` or
12 ``make pdfdocs``.
13
14 Please read the Documentation/process/changes.rst file, as it contains the
15 requirements for building and running the kernel, and information about
16 the problems which may result by upgrading your kernel.
```

Right Pane (Terminal):

```
sh-3.2$ ls
COPYING      Kconfig      arch          drivers       init          mm            security      tags.lock    virt
CREDITS      MAINTAINERS  block         firmware      ipc           net           sound         tags.temp
Documentation Makefile     certs         fs            kernel        samples       tags          tools
Kbuild       README       crypto        include       lib           scripts       tags.files   usr

sh-3.2$ make
getconf: no such configuration parameter `LFS_CFLAGS'
getconf: no such configuration parameter `LFS_LDFLAGS'
getconf: no such configuration parameter `LFS_LIBS'
^C
sh-3.2$ debug
```

Bottom Status Bar:

Left: README | utf-8[unix] | 77 words | 6% | 1/16 : 1

Right: TERMINAL | term:///78281:/bin/sh[-] | [unix] | 100% | 57/57 : 1

references.txt

- http://cewing.github.io/training.codefellows/assignments/day01/sublime_as_ide.html
- my dotfiles and vimrc github.com/askedrelic/dotfiles

thanks.txt

Discussion is welcome!

@askedrelic

www.askthere relic.com