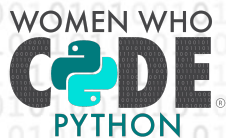


Introduction to Coding Environments for Python

Session 02

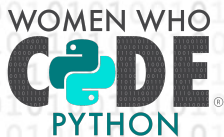
Our Mission

Inspiring women to
excel in technology
careers.



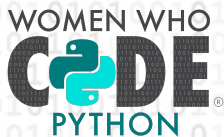
Our Vision

A world where diverse
women are better
represented as engineers
and tech leaders



Our Target

Engineers with two or more years of experience looking for support and resources to strengthen their influence and levelup in their careers.



290,000

Members

70 networks in 20 countries

122+ countries

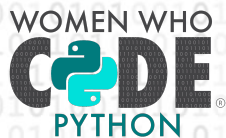
14K+ events

\$1025 daily Conference tickets

\$2M Scholarships

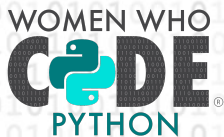
Access to [jobs](#) + [resources](#)

Infinite connections



OUR MOVEMENT

As the world changes, we
can be a connecting force
that creates a sense of
belonging while the world is
being asked to isolate.



Code of Conduct

WWCode is an inclusive community, dedicated to providing an empowering experience for everyone who participates in or supports our community, regardless of gender, gender identity and expression, sexual orientation, ability, physical appearance, body size, race, ethnicity, age, religion, socioeconomic status, caste, creed, political affiliation, or preferred programming language(s).

Our events are intended to inspire women to excel in technology careers, and anyone who is there for this purpose is welcome. We do not tolerate harassment of members in any form. Our [Code of Conduct](#) applies to all WWCode events and online communities.

Read the full version and access our incident report form at womenwhocode.com/codeofconduct

Upcoming Events

SAT
19
MAR

Bytes n' Brew I - Celebrating Women in Tech *Featured*

📍 Online | Data Science | 12:00 AM - 1:00 AM PDT (UTC-0700)

Organized By: WWCode Blockchain | WWCode Data Science | WWCode Python

SAT
19
MAR

Bytes n' Brew II - Celebrating Women in Tech *Featured*

📍 Online | Data Science | 9:00 AM - 10:00 AM PDT (UTC-0700)

Organized By: WWCode Blockchain | WWCode Data Science | WWCode Python

WED
23
MAR

Machine Learning Study Group Webinar Series *Featured, Recurring*

📍 Online | Data Science | 8:00 AM - 9:30 AM PDT (UTC-0700)

Organized By: WWCode Data Science | WWCode Python

FRI
25
MAR

Squeaky Clean Code: How to Adopt Better Coding Practices *Featured*

📍 Online | Cloud | 9:00 AM - 10:00 AM PDT (UTC-0700)

Organized By: WWCode Cloud | WWCode Python

WED
30
MAR

Machine Learning Study Group Webinar Series *Featured, Recurring*

📍 Online | Data Science | 8:00 AM - 9:30 AM PDT (UTC-0700)

Organized By: WWCode Data Science | WWCode Python

Follow us

Register for Events and Join our community -

womenwhocode.com/python

Email - python@womenwhocode.com

Social Media: 



@WWCodePython



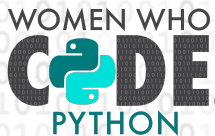
Women Who Code Python



@WWCodePython



/WWCodePython



Introduction to Coding Environments for Python

Session 2



Poojita Garg



Jessica Koubi



Nayeon

Hi! I'm Jessica

[linkedin.com/in/jessicakoubi](https://www.linkedin.com/in/jessicakoubi)



What are text editors?

- Computer program that edits plain text
- Can edit any type of code
- Come with your OS
 - Vi: MacOS/Some Linux
 - Nano: MacOS/Linux/Unixes
 - Notepad: Windows

Pros

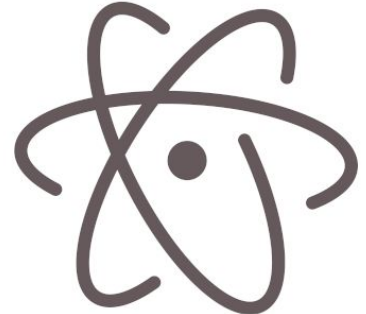
- Consume less hardware resources
- Language agnostic
- Simpler to use (usually)
- Don't hide inner workings
- Sometimes heavily customizable

Cons

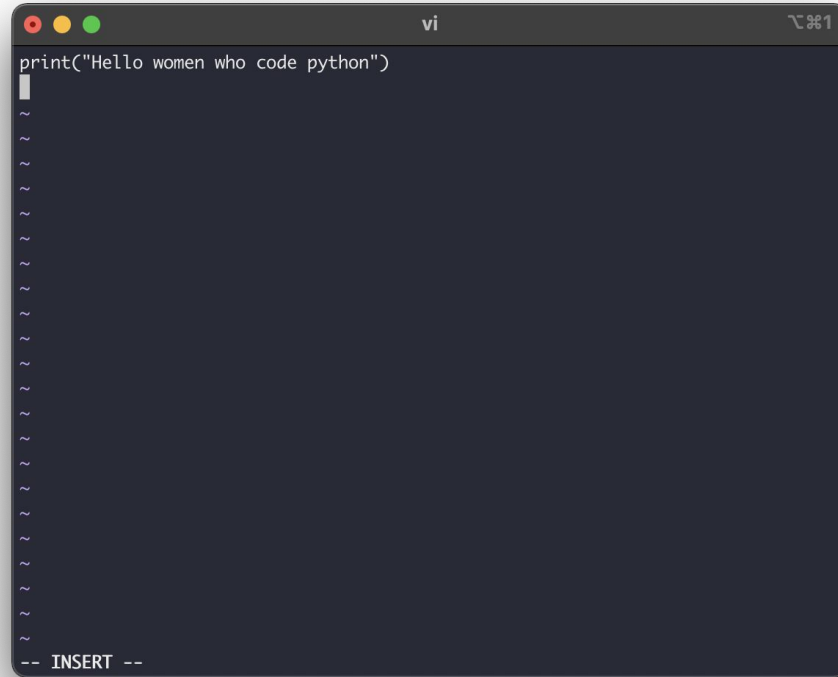
- No built-in debugger or profiler
- No intelligent code editing or smart code navigation
- No all-in-one package integration
- Sometimes harder to work on multiple files at once

Some Text Editors

- Vim
- Emacs
- Notepad++
- Sublime Text
- Atom
- Notepad
- TextMate



A Look At Vim

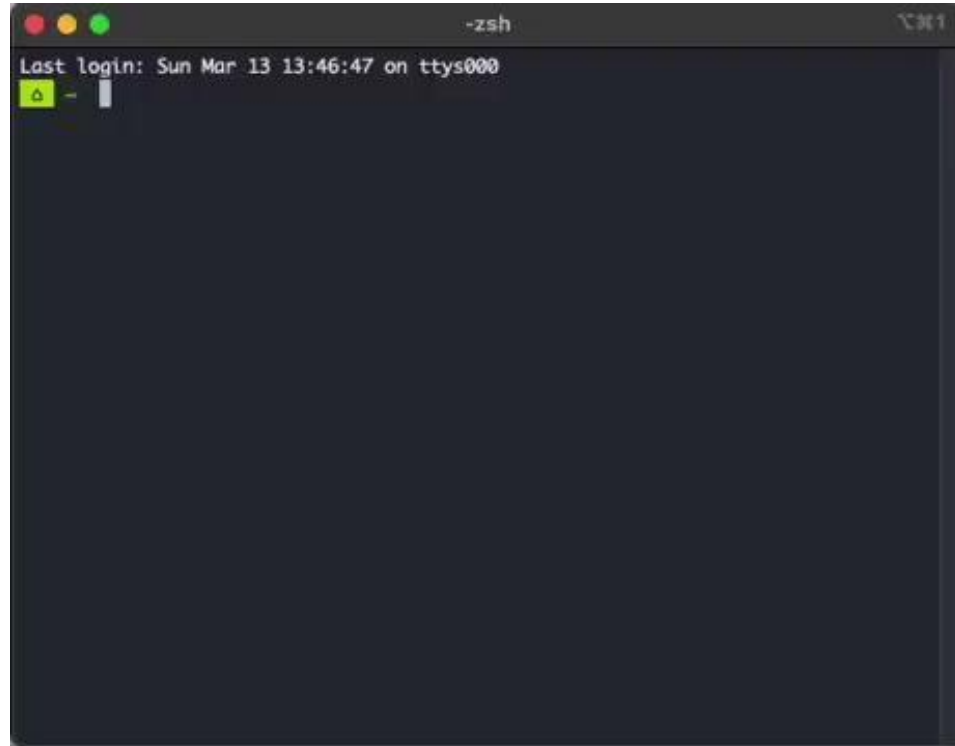


What Is Vim?

- Highly configurable and extensible text editor.
- Pre Installed on MacOS and some Linux.
- Can be installed on most operating systems: vim.org
- Run in command-line.
- Everything can be done with a keyboard.
- Many IDEs and text editors have a Vim emulation mode
 - Learn shortcuts once, switch between IDEs/Editors easily.

Starting Vim

Type **vi** in a terminal.



Vim Modes

NORMAL	INSERT	COMMAND	VISUAL
<ul style="list-style-type: none">• Default mode• Navigate in a file• Perform operations on the text (delete, copy/paste, etc)	<ul style="list-style-type: none">• Type text	<ul style="list-style-type: none">• Open/Save a file• Find/Replace text• Undo/Redo• Vim help• Play golf• And many more !	<ul style="list-style-type: none">• Create text selections• Perform operations on the selection (indent, delete, change, etc).

Navigate In Your Code

- Type **Escape** to go to *NORMAL* mode.
- Motions
 - Characters: ***h, l***
 - Words: ***w, e, b***
 - Lines: ***j, k, 0, \$***
 - Code Blocks: ***{, }***
- Count
 - 3 Words: ***3w***
 - 5 Lines: ***5j***

Navigate In Your Code By Example

- Jump to line 122: **122G**
- Go half-way in your file: **50%**
- Go start/end of line: **0, \$**
- Next instance of word under cursor: *****

Operate On Your Code

- Operations
 - Delete: **d**
 - Delete Line: **dd**
 - Yank (Copy)/Paste: **y, p**
- Operator+[count]+motion
 - Operator: What do do
 - Count: Optional, repeat the motion
 - Motion: Move over text to operate on
- Repeat the last command with dot: **.**

Operations Examples

- Copy five lines down: **y5j**
- Delete word and go to INSERT: **ce**
- Delete next 3 words: **d3w**

Type Text

- Press **i** to go into *INSERT* mode
 - Insert after cursor: **a**
 - Insert at start of line: **I**
 - Insert at end of line: **A**
 - Insert in new line below: **o**
 - Insert in new line above: **O**
- Delete word with **Ctrl+w**

Use Commands

- Go to *NORMAL* mode.
- Use **:** to enter *COMMAND* mode.
 - Show line number: **:set nu**
 - Save file: **:w**
 - Save and exit: **:wq**
 - Edit file my_script.py: **:e my_script.py**
 - Show tree (plugin): **:NERDTree**
 - Substitute foo with bar: **:s/foo/bar/g**
 - Substitute foo with bar and confirm: **:s/foo/bar/c**

Search Text

- Search forward/backward for None: **\None, ?None**
- Press **n** to go to the next match, **N** for the previous one.
- Ignore case with **:set ic** and go back with **:set noic**
- Use case-sensitive search when you type a capital with **:set smartcase**

Highlight/Select Text

- Go into *VISUAL* mode.
 - Character: **v**
 - Block: **Ctrl+v**
 - Line: **V**
- Use motions seen in *NORMAL* mode to highlight or select text.
- Yank, Delete and Copy operations will work on the selection.
- The substitute command will work as well.

Configure Vim For Python


- Create a **.vimrc** file in your *\$HOME* directory
- Set encoding and some indentation rules

```

" Set the encoding to UTF-8
set encoding=utf-8

" Python indentation rules
au BufNewFile,BufRead *.py
    \ set expandtab           |" Replace tabs with spaces
    \ set autoindent
    \ set tabstop=4
    \ set softtabstop=4
    \ set shiftwidth=4
    \ set foldmethod=indent
```

Additional configuration



```
1 " Prompt a dialog to save changed files
2 set confirm
3
4 " Display cursor position
5 set ruler
6
7 " Display line number
8 set number
9
10 " Display current time by pressing F2
11 :map <F2> :echo 'Current time is ' . strftime('%c')<CR>
```

Install Plugins

- Install vim-plug: github.com/junegunn/vim-plug

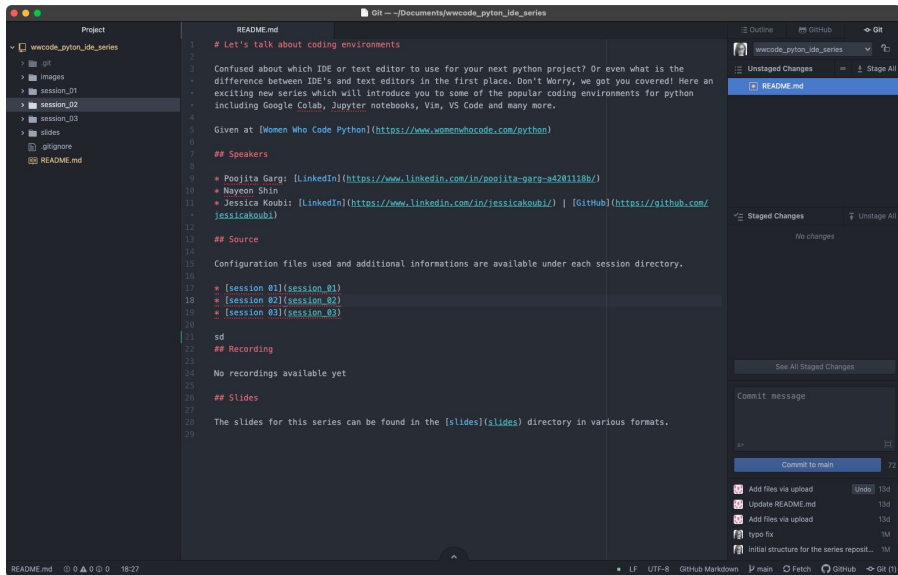
```
1 call plug#begin()  
2 Plug 'preservim/nerdtree'  
3 Plug 'sheerun/vim-polyglot'  
4 Plug 'Vimjas/vim-python-pep8-indent'  
5 Plug 'jeetsukumaran/vim-pythonsense'  
6 Plug 'jiangmiao/auto-pairs'  
7 Plug 'dense-analysis/ale'  
8 Plug 'powerline/powerline'  
9 call plug#end()
```


Play Golf

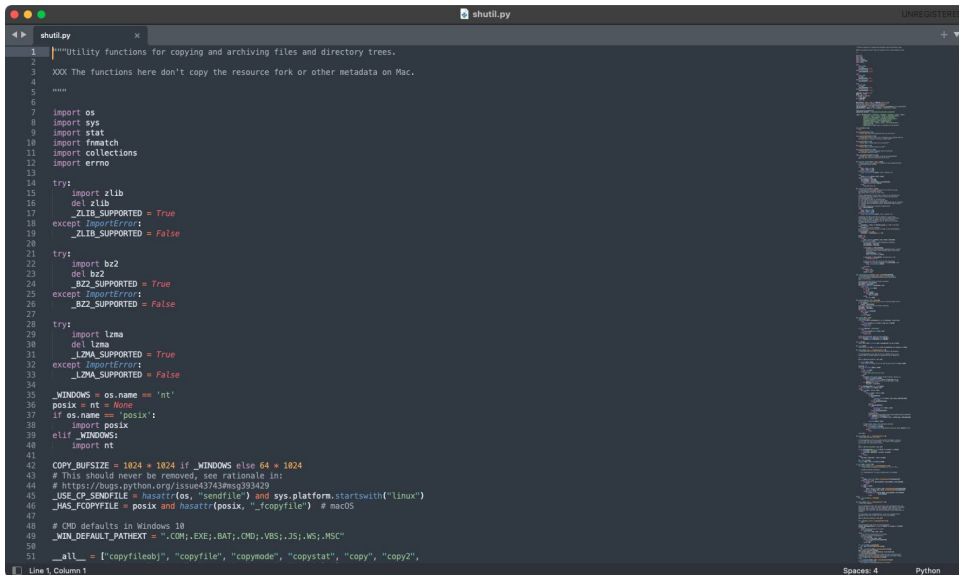
vimgolf.com



A Brief Look At Atom And Sublime



atom.io



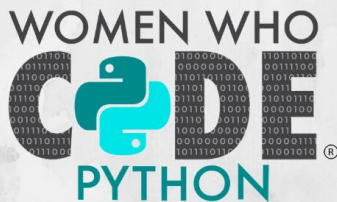
sublimetext.com

Upcoming in the Series

→ Session 3 on IDEs on
1 April @ 8 PM ET

Q&A

Stay Connected



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WOMENWHOCODE.COM/PYTHON

- Find more resources related to this talk on github.com/WomenWhoCode/WWCodePython
- For additional questions, join our slack channel