Code Editors and IDEs

Basics for NLP



What should you want in an environment?

- Ability to save and reload code
- Debugging
- Syntax highlighting
- Run code within the environment
- Automatic code formatting/indentation

What are the differences?

Code Editors

- (Typically) a simple text editor
 - Built for many languages
- Built for flexibility
- (May be) Extension capable
- Low learning curve*
- Has good debuggers

Integrated Development Environments (IDEs)

- (Typically) dedicated software
 - Built for many languages
- Built for software development
- Extension capable
- High learning curve
- Has debugger and more

Why should I use one of these?

Code Editors

- Lightweight
- Good for on the fly coding

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Integrated Development Environments (IDEs)

- Heavyweight
- Good for established and large codebases

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So which should I use?

Case by Case basis and preference



- Most people are familiar with a few from each group
- Some businesses require using specific ones so you must adapt
- Both are valid options so don't let people dissuade you

What are a few examples of them?

Code Editors

- Atom
- Sublime Text**
- Vim

IDEs

- IDLE
- Jupyter Notebook*
 - Google Colab
- PyCharm
- Spyder
- Visual Studio





Code Editors

Atom

- <u>Free</u>
- Made by Github
 - Integrated for that
- Less of a pseudo IDE
- Lots of customization
- Not Python exclusive

Sublime Text

- <u>Free</u>
- Can be a pseudo IDE
- Very customizable
 - Many extensions
- Not Python exclusive

Vim

- <u>Free</u>
- Terminal-based
- Incredibly customizable
 - Aka the Wizard Tool
- Not Python Exclusive







IDEs

IDLE

- <u>Free</u>
- Lightweight IDE
- Strong Python support
- Python Exclusive

IDLE

Jupyter Notebook

- <u>Free</u> (//>/ ∇ /<//)
- Not *really* an IDE, but a

 Notebook editor/IDE combo
- Good for sharing code
- Strong in presentation tools
- Not Python Exclusive

PyCharm

- Not Free*
- Great for Django and Flask
- Great for very large scale projects
- Strong Python Support





IDEs

Spyder

- <u>Free</u> ("ಡωಡ")
- Similar to R Studio and Matlab
- Lightweight IDE
- Strong Python Support
 - Don't use Anaconda Spyder

Visual Studio

- <u>Free</u>
- Windows based IDE
- Built to have everything in one place
- Not initially built for Python
- Great for large scale projects





What type of editor do you use?

- Is it one of these or a different one?
- Is there a reason why you prefer it?
 - Learned it in a class?
 - At work?
 - To be cool?

Why did you learn about all of this?

- For the upcoming Python Project (if you choose to do it), bonus points are given for using a different editor
- Learning other options is useful, and being versatile is never a bad thing
- You may find something that is better suited to your needs!

