

IASP505

Foundations

Coding in

Python

Dr. John Yoon

Pedagogy

- Set up a Coding Environment
 - For Windows, Mac or Linux
 - In Command-line, or in IDE
- Learning Steps
 - Understand the language statements
 - Practice the statements and learn the behavior of the statements
 - Dive in deeper and apply to a
- From GUI to business-logics; move to GUI
 - Feel and learn, extend
- OOP
 - Classes, Objects, Methods and Invocation

Topics to Learn

- Basic statements
 - Literals; Variables; Values
- Data structures
 - Lists; Tuples; Dictionaries
- Branching statements
 - if ... else ...
- Iterative statements
 - for ...
 - while ...
- Object-orientated paradigm
 - class ...
 - init()
 - ---

CONSIDERATIONS

How to improve

- the efficiency of statements
- the robustness of statements

How to secure the statement

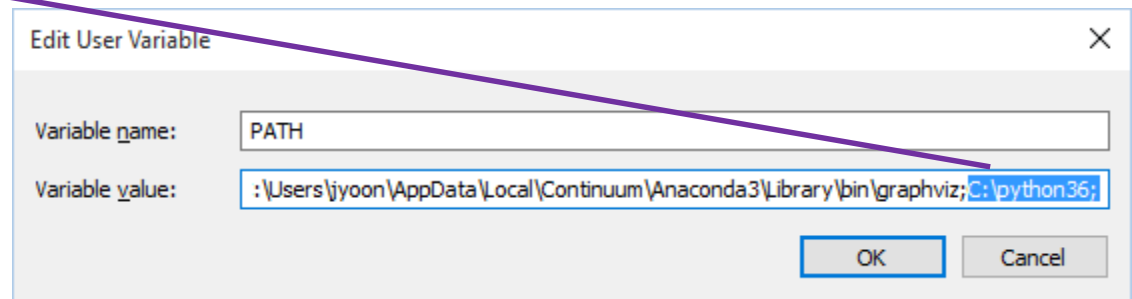
How to make it intelligent

Python Coding Environment Setup

■ Python Interpreter

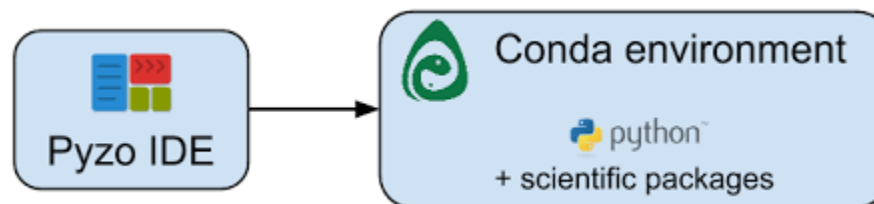
- Download: <https://www.python.org/downloads/>
- Install both 2.7 and 3.7
 - Ex) C:\python27\ and C:\python37\

Discuss whether to set PATH or not; If not, how to activate; if yes, pros/cons?



■ IDE Pyzo

- Look at: <http://www.pyzo.org/start.html>
- Anaconda



Python IDE on Windows

- Read:

- <http://www.pyzo.org/start.html#quickstart>

- Pyzo

- Download Pyzo 4.6

- Ex) C:\Program Files (x86)\pyzo

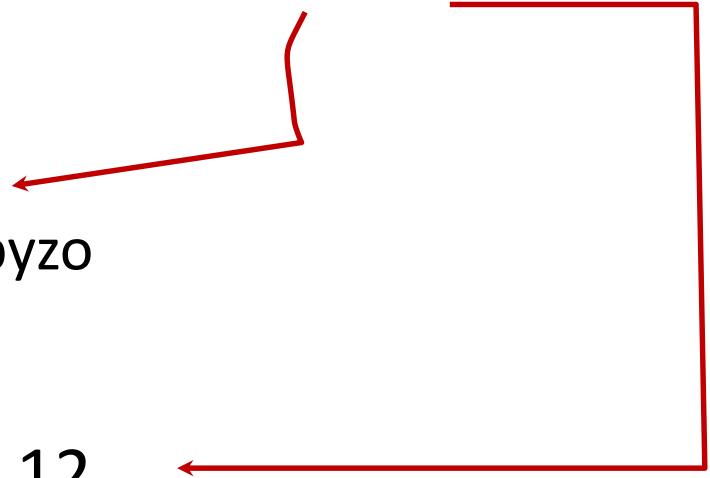
- Anaconda

- Download Anaconda 2018.12

- Jupyter

- Download from jupyter.org

- Command-line +



Python IDE on Mac

- Read:

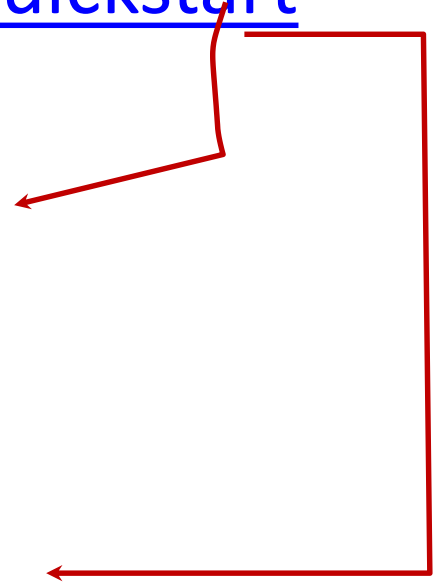
<http://www.pyzo.org/start.html#quickstart>

- Pyzo

- Download the dmg file of Pyzo 4.6

- Anaconda

- Download Anaconda 2018.12



First UI: Command-line

- Terminal

- On Windows: `Win+R > "cmd"`
- On Mac: `Cmd+Space > "terminal"`

- When a terminal is popped

- Work on it

- Editor

- Windows: `notepad`
- Mac: `vi` on terminal

Homework #1

- Choose a platform of your coding environment
- Set up the following:
 - Command-line
 - Pyzo IDE
- Submit the screenshot of both Command-line and Pyzo running the following statement:

```
print ("xxx")  
print ("yy zz")
```

- where xxx should be your full name and yy zz is a greeting sentence.
- see how the statement behaves