

# Introduction to Python

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## Agenda

- Installation of Python and IDE
- Virtual Environment Setup and installing numpy
- Python Syntax
- Variables in Python



## Installing Python and an IDE

<u>Install</u> Python - for windows users please create the environment using these <u>instructions</u>.

IDEs and their respective download instructions

- Atom
- PyCharm
- MS visual studio code

Please go through those links, and when you have any problems I will guide you through the solution.



## Virtual Environment setup and Libraries

Installing a virtual environment instructions: Virtual Environment

Once installed, and in the project directory (where you will be doing your coding), write the following into the terminal:

Pip install numpy

Please go through those links, and when you have any problems I will guide you through the solution.



# Python Syntax and Variables

- 1. Execution
- 2. Indentation
- 3. Comments
- 4. Variables
  - a. Text type
    - i. str
  - b. Numeric
    - i. Int
    - ii. Float
    - iii. Complex
  - c. Sequence
    - . List
    - ii. Tuple
    - iii. Range
  - d. Bool

```
print("Starting Program")
def create list(some input): #2
    sample list = [] #4ci
   is 20 = False #4d
for i in range(50): #i: 4bi , range: 4ciii
       if i == 20:
           is 20 = True
            break #1
        sample list.append(some input) #1, 4ci
    return sample list, is 20
sample string = 'Hello World' #4ai
sample tuple = create list(sample string) #4cii
```