

# Python Basics

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**GIT Hub Link Course Material :** [Pierian-Data/Complete-Python-3-Bootcamp: Course Files for Complete Python 3 Bootcamp Course on Udemy \(github.com\)](https://github.com/Pierian-Data/Complete-Python-3-Bootcamp)

## Datatype

- Number
- String
- List
- Dictionary
- Tuple
- Set
- Boolean

## File Operation

- Command reading & writing file  
with  
readline()  
seek(0)  
r+,w+,r,w,a

## Operator

- Comparison Operator  
< > <= >= != ==
- Logical Operator  
and or not
- Conditional Operator  
if elif else
- Control Flow Operator  
for  
while do else  
break  
continue  
pass  
Tuple-Dict Unpacking

## Other Operator

range  
enumerate  
zip  
in  
random ( shuffle & randint )  
input

## Method & Functions

def  
return  
\*args & \*\*Kwargs

## Other Functions

- lambda
- map

- filter
- min max abs join
- set(alphabet)
- clear\_output

## Object Oriented Programming

- Class
- `__init__` ( instantiation )
- `self`( attributes)
- Inheritance
- Polymorphism
- Magic Dunker Method - `__str__` , `__len__`

## Modules / Submodules

- pip - how to install module
- PyPi - to search for modules
- Modules arranged via folder -- `init.py`(blank file to define modules)
- `__name__` and `__main__` - to confirm that code is called directly from main

## Errors/Exception Handling

- try except else finally

## Statistics & Unittest

- pylint - generate statistics on code
- unittest - library to do unit test using class & assert method

## Decorator

- `@<decorator function name>`

## Generator

- **yield** -> use yield for performance

## Collections

- **Counter** -> use yield for performance  
`c.values()`  
`c.most_common(1)`
- **defaultdict** --> Normal dict give error if key is not found defaultdict gives null add default key
- **OrderedDict**
- **namedtuple** --> called tuple attribute via position or name
- **datetime**

## Advanced Datatype

- **Numbers**
- **Strings**
- **Sets**
- **List**
- **Dict**

## Debugger

- pdb

## Timeit

- Timeit

## Regular Expression

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## **File Operations**

- os
- Shutil
- Zipping & unzipping files

## **Email**

- Send Email (sendmail)
- Read Email
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## **FileType Operation**

- Read Write PDF (pyPDF)
- Read Write CSV (csv)
- Working with Images