

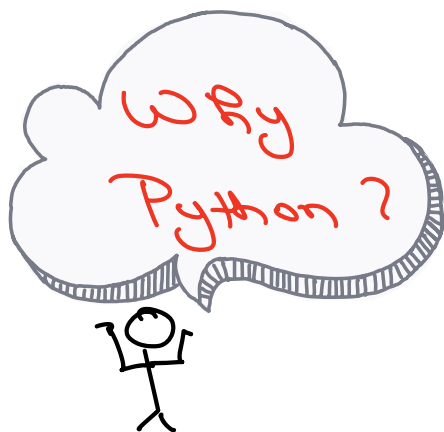
Agenda

- Meet and greet
- Module Overview and Expectation
- Setup and print Statement
- Data Types
- Variables
- Taking Inputs

① LinkedIn ✓


② Whatsapp : 8586836687

Module Importance



- Easiest to learn and understand
- Data-Scientist, Data-Analyst and ML Engineer ➤ 95%.
- Model and package : ML, DL, CV, NLP

Module Overview

- ① Data Types, variables and IO
 - ② Operators
 - ③ Control Statements
 - ④ and ⑤ Loops
 - ⑥ Functions
 - ⑦ and ⑧ Lists
 - ⑨ Strings
 - ⑩ Sets and Tuples
 - ⑪ Dictionary
- 
- ⇒ Data Structures

Expectation from Module and Instructor

- Basics of Coding
- Strong Fundamentals in Python
- Additional Contents, post-reads and practice Question

Expectations from Learners

- 5+ assignment per Session (mandatory for Every learner)
- 2-3 Home-work Questions per Lecture

Metric

PSP (problem solving %)

$\geq 85\%$ PSP

$$\frac{45}{50} \times 100$$

- Track PSP and allot time to increase it

Content and Notes

- Git Hub } Codes
- Dashboard } Handwritten Notes



End of Module: Cheat Sheet

Post-Lecture Content in Dashboard

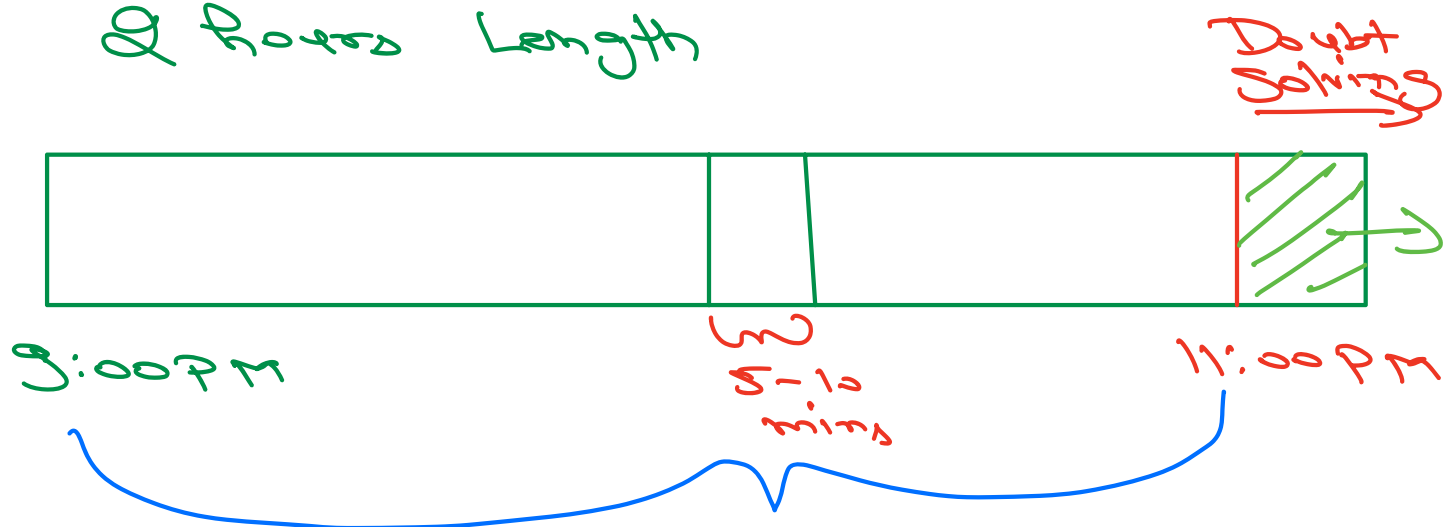
How do we ask Questions During Session

- ① Post it into Chat-Section
- ② Post your Question into Question Stack
- ③ At the End of Session:

Doubt Solving

- ① We can discuss on mic
- ② Question Stack

Q Rows Length



Attendance

- ① 9:00 to Doubt Solving

① Setup IDE

① First Python Program

① Data Types

① Integer

① Float

① String

① Bool

① NoneType

① Complex



① Type ()

① Variables

① I/O

① Input ()

① int ()

① str ()

① print ()



Why do we need programming Language?

Computers only Understand
Binary Information

01010001

Takes Instructions
in
Human friendly
Format



Python



01010



Execute
this Binary
instructions

Q

Compiler vs Interpreter?

Where do we write these
Instructions / Code?

- ① IDE : Integrated
Development Environment
- VS Code
 - Pycharm
 - Online Ide

Python is Case Sensitive

print('Hello') Print('Hello')



Syntax : Rules that must be followed to write Error-Free Code

Errors → Bugs

* To Execute Code in Colab

Shift + ↵

or



Data-Types



Type of Data that can be processed/manipulated

Python Support following Data Types

• int : Whole Number : +ve or -ve
-1, -2, 0, 3
4, 5, ...
No upper Limit or
Lower Limit for int

1.0 ? is this an int

No Not int

It is float

1.0
equal to
1

Floats (Decimal Numbers)

Ex: -1.0, 2.333, 4.0001
etc

Boolean :

③ True or False
↓ ↓
1 0

None Type :

③ None

③ It means Nothing

Complex DT

Variables

- Variables are like Containers
- Variable \rightarrow identifier
 \downarrow
The name given to Variable

- You don't have to specify the Data Type

(Dynamically Typed)

$x = 3$
 \uparrow identifier \uparrow Data / Object Stored in
 x



Difference b/w
(Optional)

Statically typed

vs

Dynamically typed

Purpose of Variable

Store Data and Reuse later

Variable Naming Rules

- Valid
 - ① Lowercase or Uppercase
(a-z) (A-Z)
 - ② int but not at start
 - ③ _

Ex:

name = "Sachin" ✓

name_1 ✓

1_name ? ✗

n@me ? ✗

Taking Input from User

⑥ input()

Quiz

x = 3

①

y = 'Hello'

②

num = y

③

(num will store

what y is

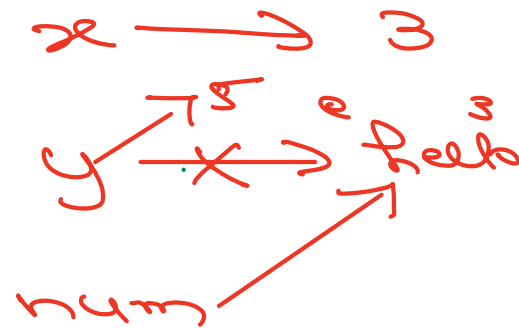
storing)

y = 5

④

print(num, y)

↓
Hello

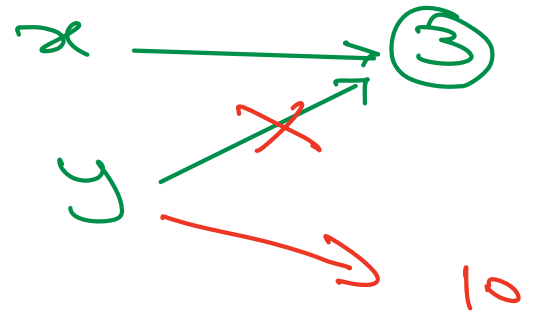


mutability vs Immutability

$x = 3$

$y = x$

$y = 10$



List, Set, Dictionary