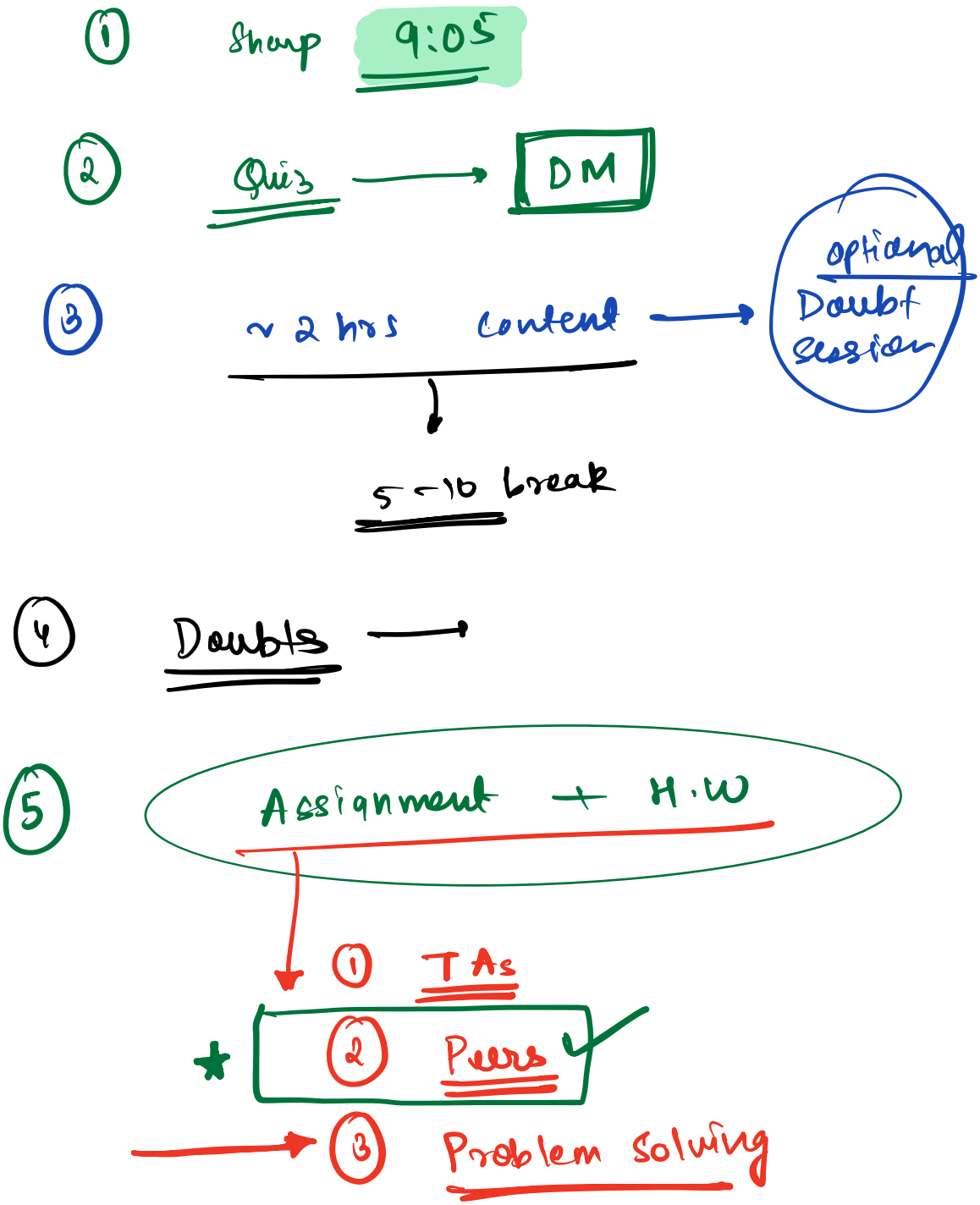
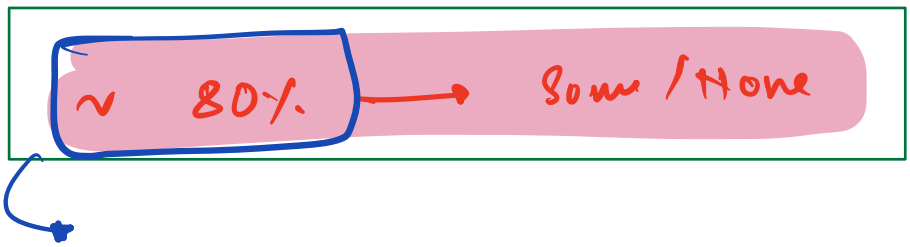
"Hello Everyone!"

Welcome to the World of

# PROGRAMMING

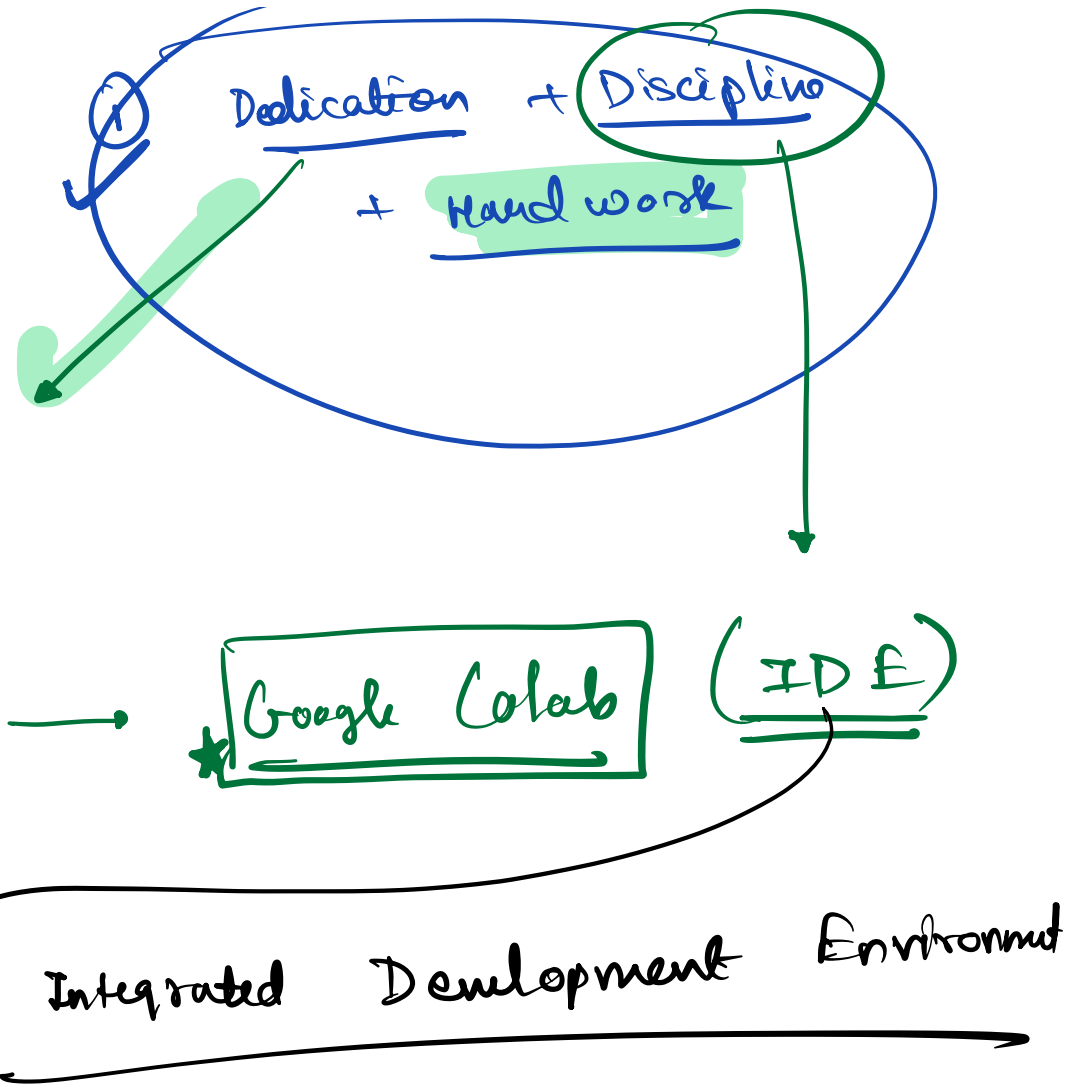

1
Sharp
9:05
2
Quiz
DM
3
~ 2 hrs
Content
optional
Doubt
Session
5-10 break
4
Doubts
5
Assignment + H.W
1
TAs
2
Peers
3
Problem Solving

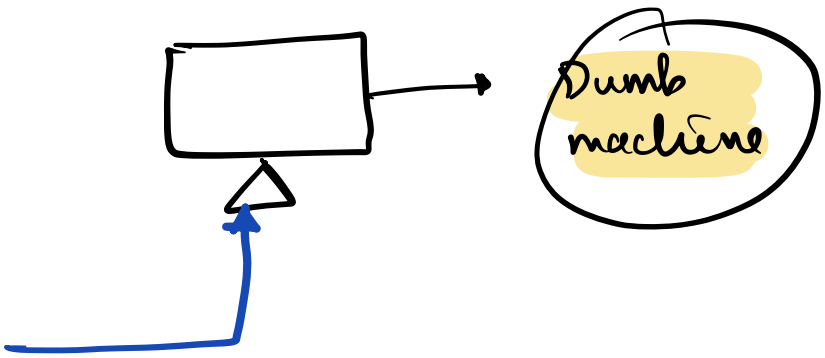
Roadmap :



~ Roadmap

1. Data types
2. Operators
3. Control flow (if - else)
4. Loops
5. Lists / Arrays
6. Basic maths
7. set / Tuples
8. Dictionaries
9. Strings
10. Lots of Programming


Dedication + Discipline
+ Hard work
Google Colab
(IDE)
Integrated Development Environment




① Give precise instructions

→ non-ambiguous

eg:-

Task: get me a glass of water

bath drink

Program

→ Go to kitchen

→ Pick a glass

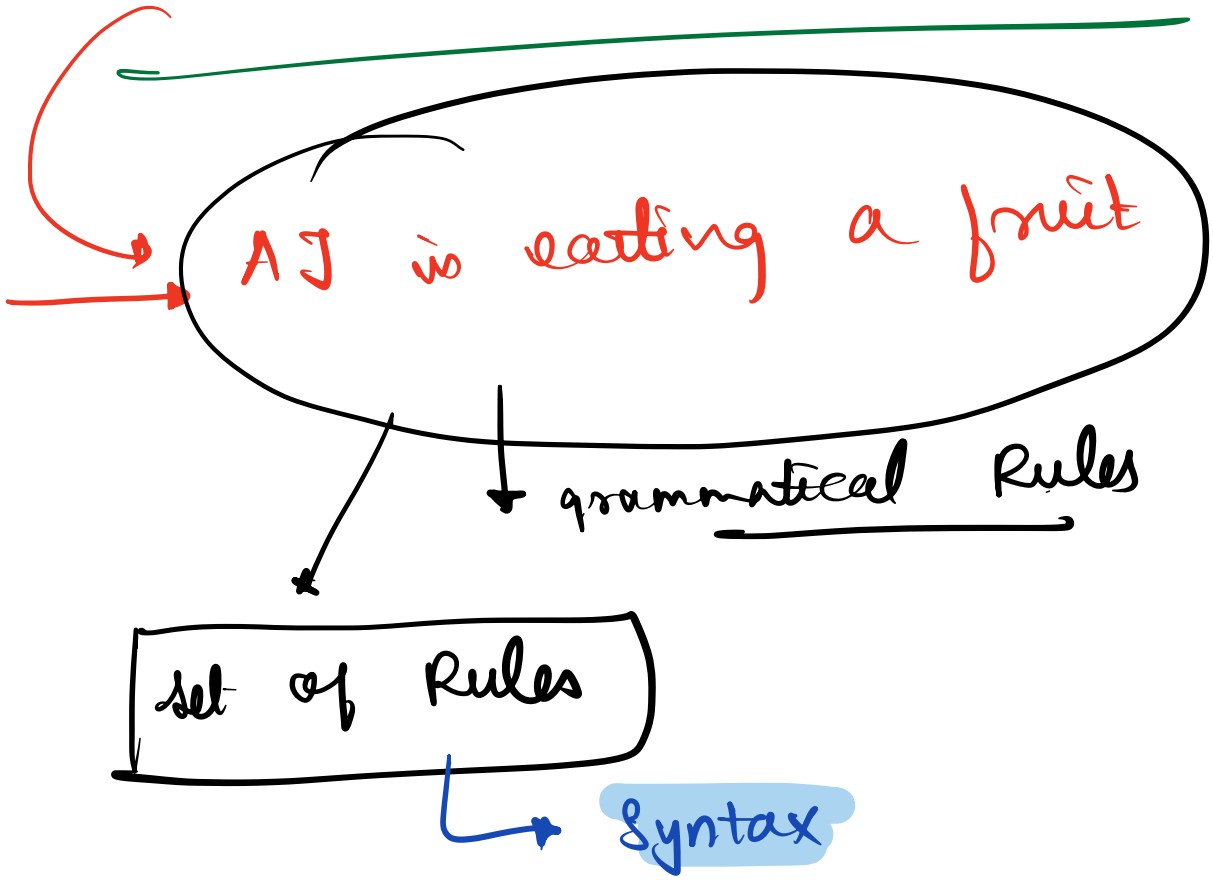
→ fill the glass with drinking water

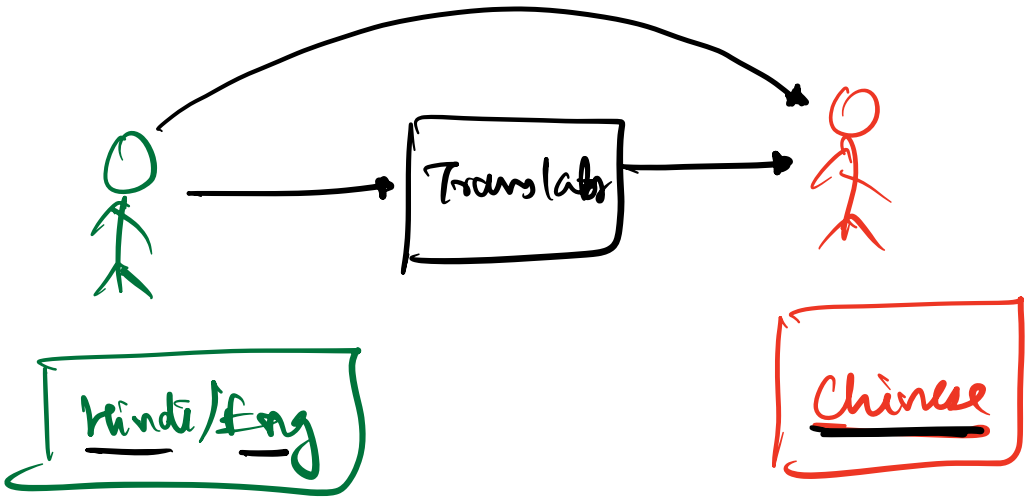
→ Bring the filled glass back to me.

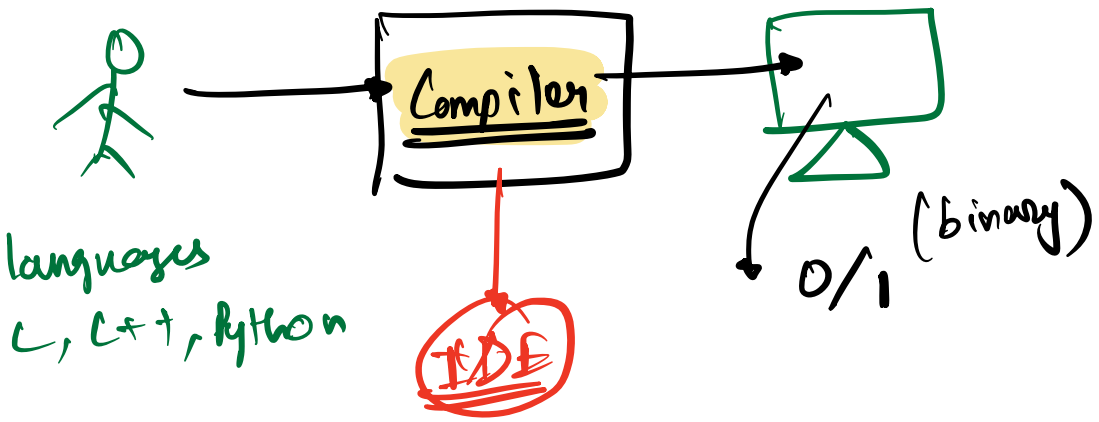
data structure

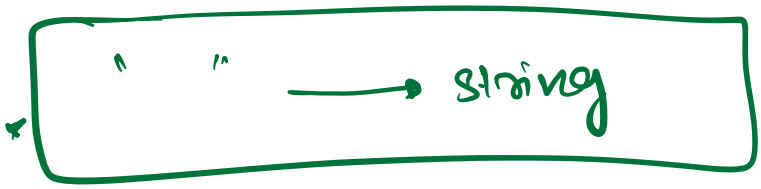
data

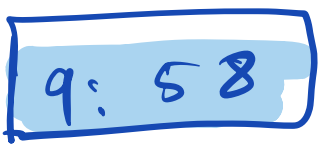
→ A eating is fruit AJ.




Translator
Hindi/Eng
Chinese


Compiler
languages
C, C++, Python
IDE
0/1
(binary)


" "
String


9: 58

# Data types

→ data

(8) Write a program to add two numbers

special characteristics / attributes

① Integer (int)

↳ 8, 4, -2, 0, 1 ...

② float (decimal)

↳ 8.3, 9.257, 7.31

↳ 5.0 ✓

precision

5

5.12

→ int a = 2 } 4 Bytes

8 4 2 3 5 6 7 8 9 10 11 12

(3) Strings → text

↳ double quotes ("_")

↳ single quotes ('_')

→ "hello"

→ 'hey!'

"%" mismatch

→ what ever you use keep it same throughout

④ Boolean (bool)

True / False

* Imp :- Python is Case sensitive

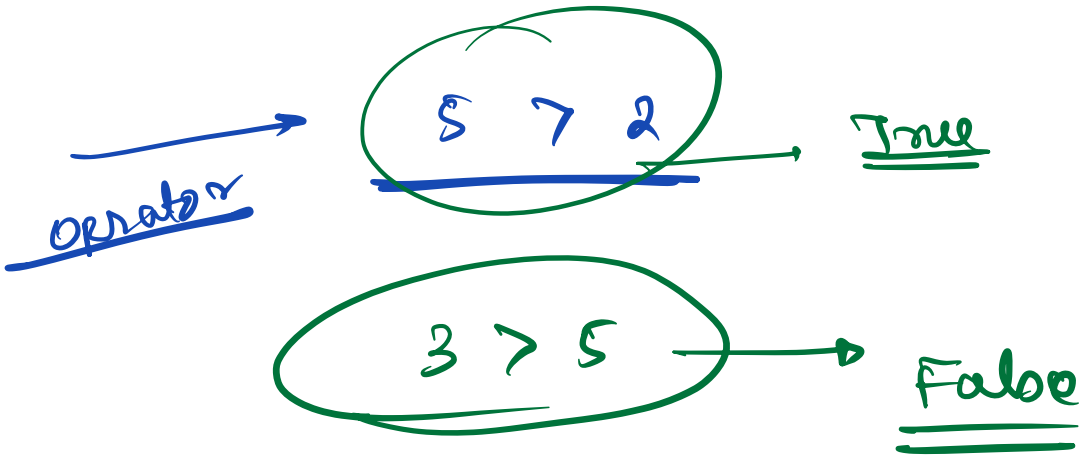
True ✗ true

⑤ NoneType

None

* represents · nothing

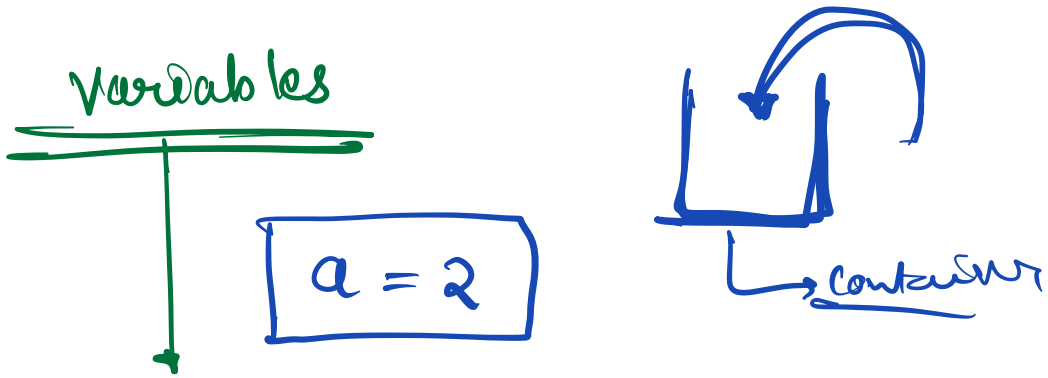
↳ discussed in detail in function topic



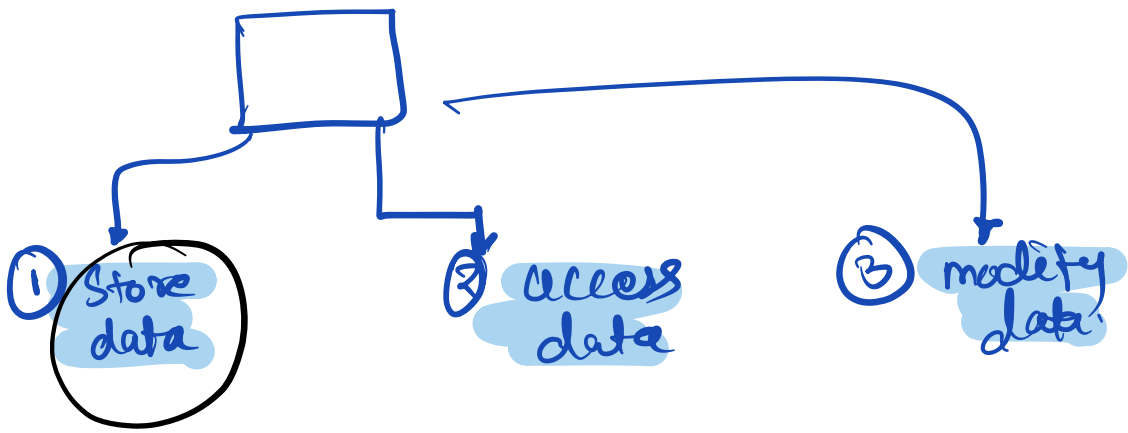

type (x)

whatever is the datatype of x

- Everything in Python is an Object
  - OOPs



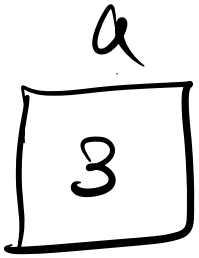

* Container to keep data / object



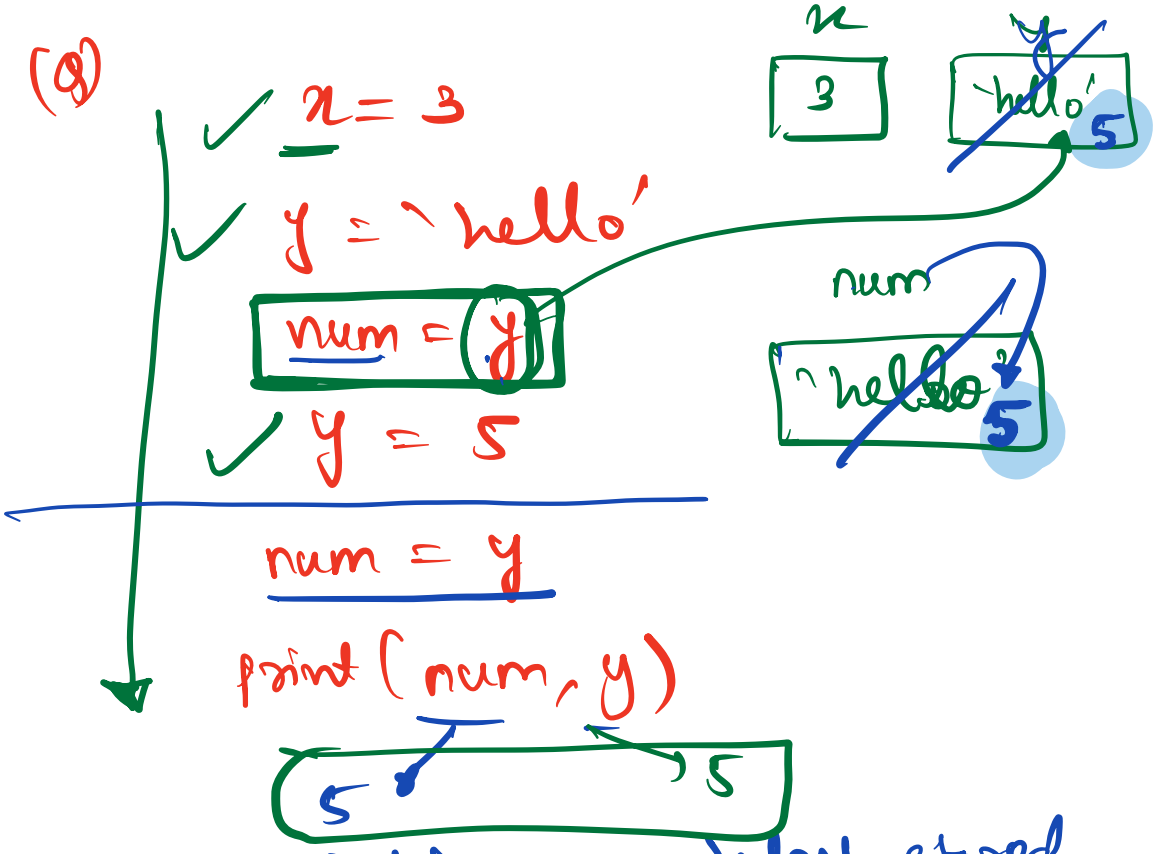


(2) print (a) → 2

(3) a = 2
a = 3

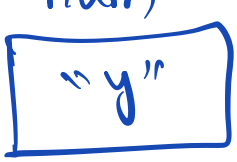


(8)




* A variable → latest stored value.

num = "y"



* Variable naming Rules

① should start with alphabet or underscore ('_')

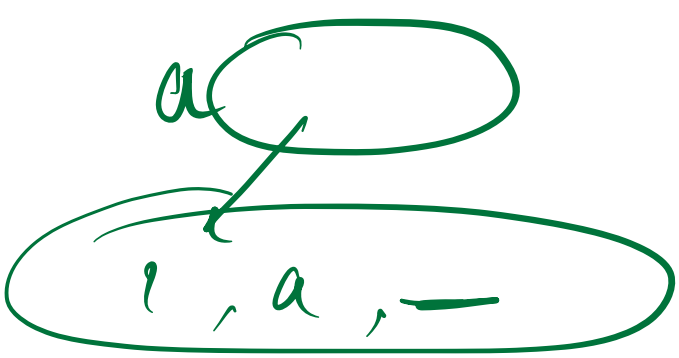
(a-z) (A-Z)

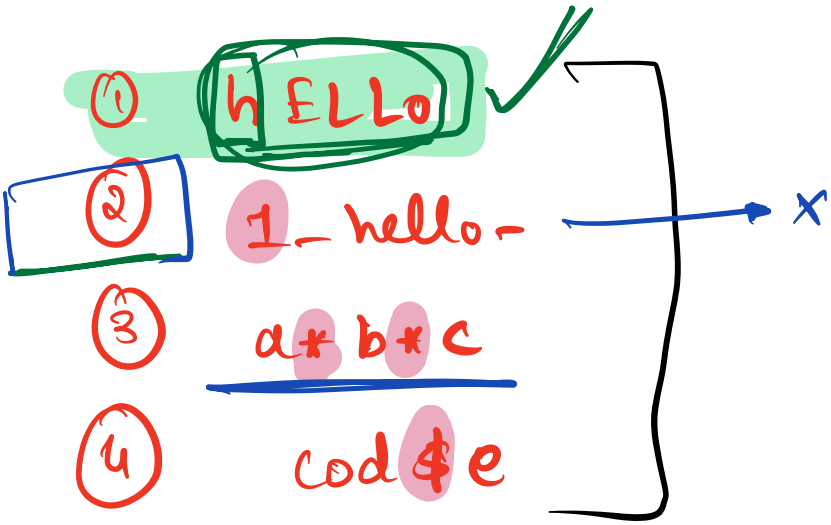
② Can have (alphanumeric or underscore)

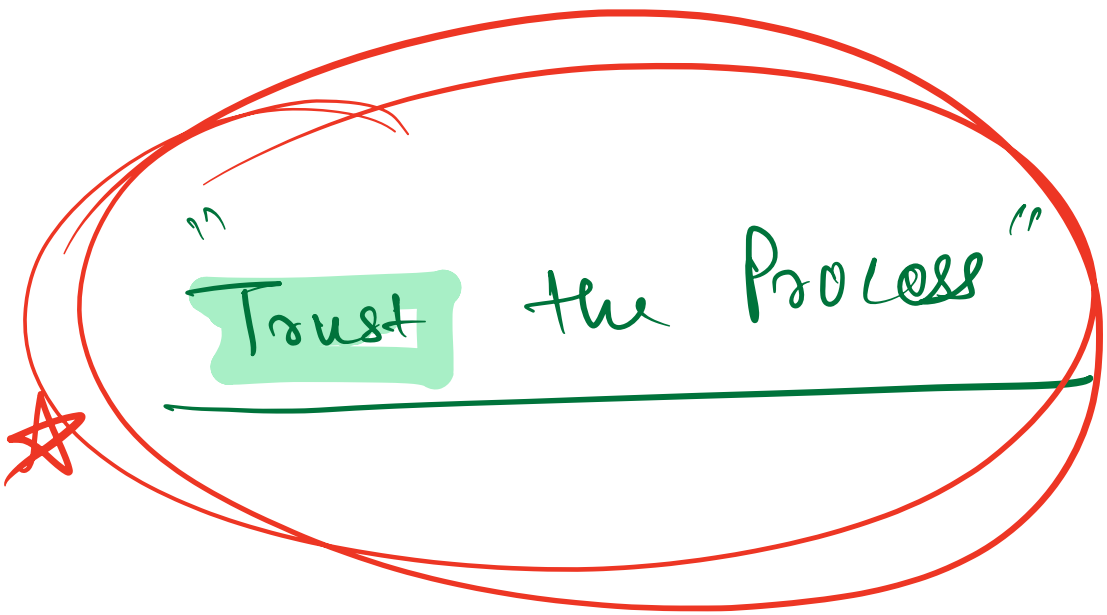
0-9 a-z A-Z *

in between or at end

eg: ① 1a = 2 ✗






bhavith = 2

first_name = "Bhavith"