Language : has different Kinds of statements.

Assignment Statement.

Usage : [1] Create Data [Numbers].

[2] Define variable names to access data.

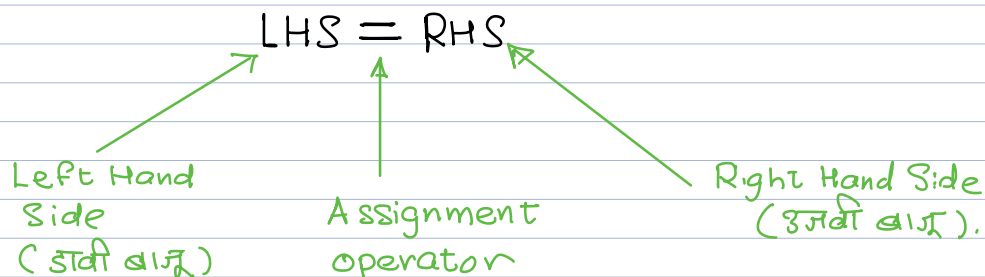[3] Re-assign data to variable names.

15   line number 1
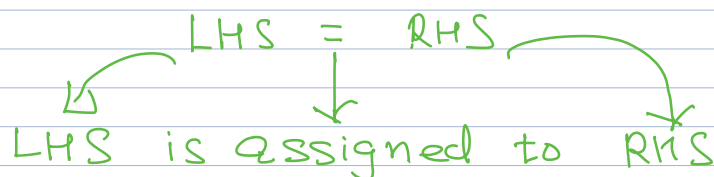290
1.1
            line number 4

            line number 7

$$LHS = RHS$$

Left Hand
Side
(डावी बाजू)   Assignment   Right Hand Side
                    operator   (उजवी बाजू).

a = 10   [a is assigned to 10]

b = 15   [b is assigned to 15]

c = 1.1 [c is assigned to 1.1]

LHS = RHS

LHS is assigned to RHS

Valid Variable Names In Python.

(i) A to Z ——————— upper-case, alphabets

(ii) a to z ——————— lower case alphabets

(iii) o to 9 ——————— Digits

(iv) __ Underscore

————————— Rule-1

first letter of Python name

Cannot be a digit.

[A-Z] | [a-z] | __

followed by any number of

[A-Z] | [a-z] | [0-9] | __

— Hyphen
—— Underscore
@ $ #
Other special characters

num1 ✓   num_1 ✓

num_1 ✗   32xyz ✗
  └→not allowed   └————→not allowed.

__init__ ✓

xyz_123# ✗
  └ not allowed ————————— Rule-2

Rule #3 : Names which begin with two underscores

and end with two underscores

have SPECIAL MEANINGS.

Therefore, do not use these names

in other contexts.

Exercise-

(a) Create data value 3.1415 and name it as 'pi'

   pi = 3.1415

(b) Create data value 2.7 and name it as 'e'.

   e = 2.7

(c) Create data value 8.5 and name it as interest_rate.

   intevest_rate = 8.5

   intevest rate = 8.5

Assignment Statement - In Depth.

CPU : main character vibe.!

Aim: Write and run prog rame in Python.

Step- I: Create and save a text file with .py extension.

   basic-cui-calculator.py

   basic-gui-calculator.py

   xyz.py   my_first_code.py

Step. II : Write Python code in it.

the file in which you have saved Python lines is called as 'SOURCE CODE'

Step-III : Run Module

  to run Python source code we must give
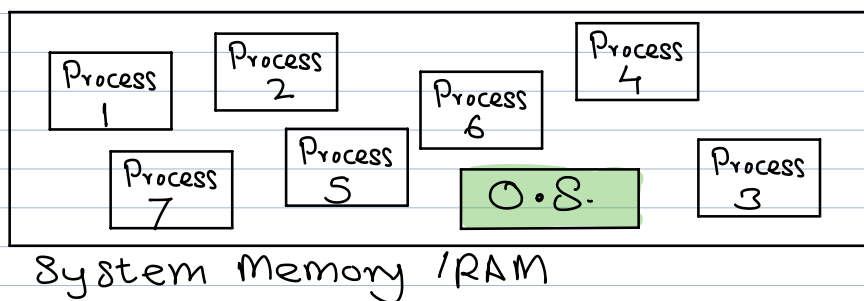 Python source code to Python Interpreter
    [python. exe]

When we clicked on Run Module
  ↳ internally
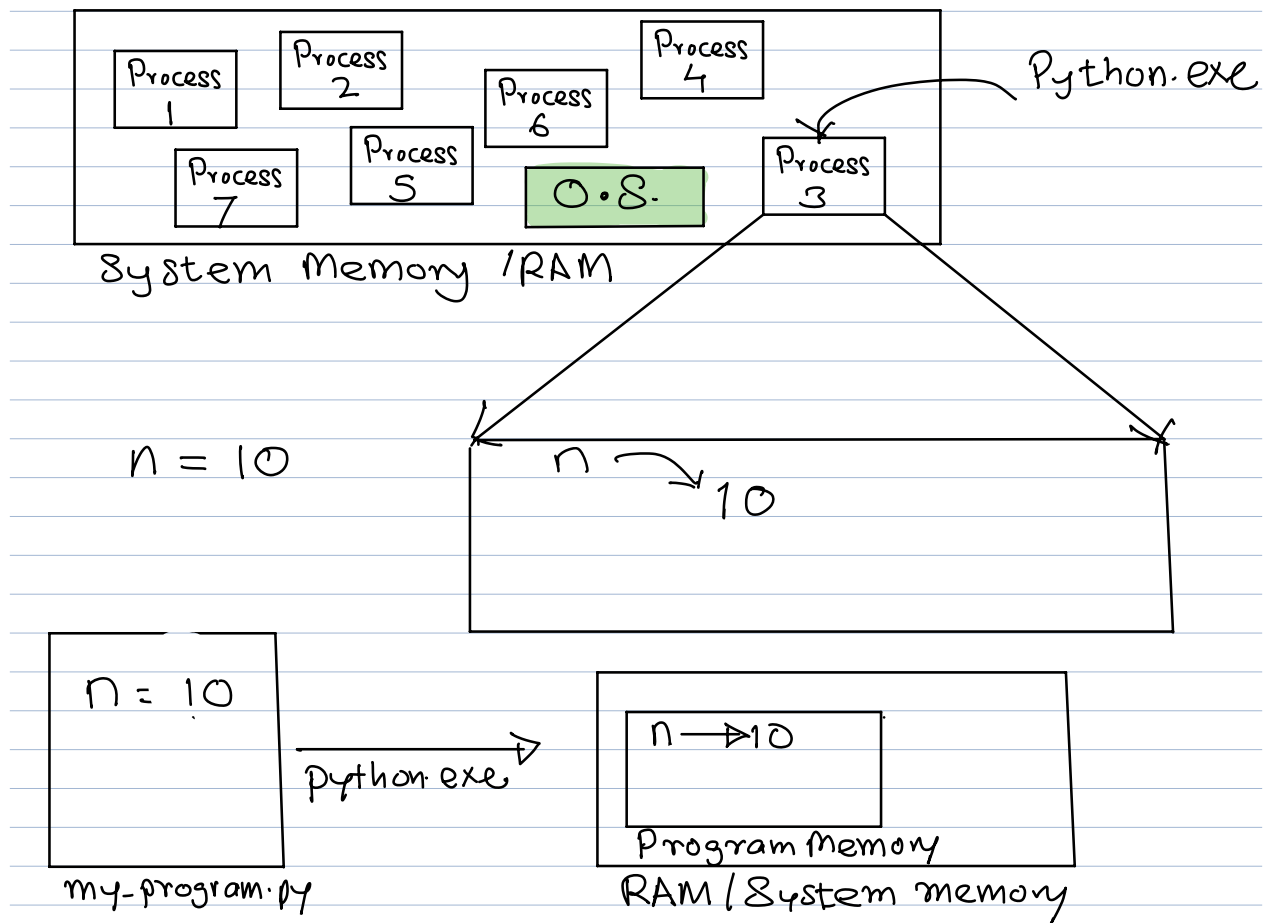
     python. exe basic-gui-calculator. py

[Rule of O.S. : Whenever any executable is
run, an O.S. creates an RUNNING APPLICATION
from it. In technical language, a running
application is called as a PROCESS]

[An O.S. allocates a memory for
every process on RAM]

System Memory /RAM

Run Module

python. exe source-code.py :)

System Memory /RAM

Process 1
Process 2
Process 6
Process 4
Process 7
Process 5
O.S.
Process 3

Python.exe

n = 10

n → 10

n = 10

Python.exe

n → 10

Program Memory
RAM / System memory

my-program.py

[Rule of Programming Language :

In any high-level programming language data
is created from data-type]

$\underline{15}$

$\underline{1.5}$

Int . Int

Integer

Fractional

$\underline{int}$

$\underline{float}$

```
>>> n = 10
>>> type (n)
    class 'int'
```

```
>>> f = 1.1
>>> type (f)
    class 'float'
```

Data Types	int	float
class		

Data Instance/ Object	10	2.5
Data Instance/ Object	15	3.8
Data Instance/ Object	20	4.9

Data type & Data Instance

Generic / theory

Python is an O.O.P.

class : object

RAM.

Program Memory

n = 10   10 → class int चा object आहे.

n

Class Name
Reference
count

10