→ VARIABLES :-

A Variable is used to "store a data" in a program. It acts like a container that holds a value.

ex:- x = 10
name = "Lochan"
pi = 3.14

Valid Variables :-
A Variable name is valid when it follow python rules:
* Must start with a letter (a-z (or) A-Z) @ under-score (_)
* Cannot start with numbers (1name - invalid)

* cannot contain spaces (student name)
* Cannot use special Characters (@, #, $, %)
* Cannot be python Keyword (if, else, while etc..)

ex:- student_name = "Akshaya"
_student_id = E1002
age = 21
height_in_cm = 153

Invalid Variables:-
A Variable is invalid if it breaks any naming rule:
* contain spaces
* Start with a number
* Use special Chars
* Use python Keywords

ex:- student name = "Lochu"
1name = 96
name@123 = "Priya"
Cash$ = 100
class (Keyword)

→ DATA TYPES:-

A Data type tells what kind of data a variable holds whether it is int, float, string etc..,

ex:- A number = 10
Text = "Hello" / 'Hello'
True/False = True

a) Single (Primitive) data type
It is a data type holds a single value.

ex:- → int = age = 20
→ float pi = 3.14
→ str : name = "peniya"
→ Bool is_name = true
→ None type x = None

b) Multiple (Collection) data type
It stores a multiple values Together

→ list (Ordered, Unordered) marks = [85, 90, 100]
→ Tuple (ordered, Not changable) colors = ("Red", "Black"
→ Set (Unordered, Unique) unique_no = {1, 2, 3, 4, 5}
→ Dict (Dictionary) Student = {"name": "Akshaya"}

→ OPERATORS:-

Operator is a symbol that performs an operation on values (or) Variables.

ex:- a+b → a, b - operands
+ - operator

Types of Operators :-
a) Arithmatic
b) Assignment
c) Comparision
d) Logical
e) Bitwise
f) Membership
g) Identity

a) Arithmatic Operator

It is used to perform a mathematical Operation.

+ → Addition

- → Substraction

* → Multiplication

% → Modulus

/ → Division

// → floor division

** → exponent