

VARIABLE:-

* Variables are the names which are used to store values.

Valid Variable declaration:-

Eg:

1) a = 2

2) A = 4

3) num = 20

4) num 1 = 31

5) num 2 = 90

6) Num = 90

7) Num = 12

8) StudId = 123

9) stu_id = 127

10) _stu_name = 'xyz'

11) a, b, c = 4, 6, 1

12) x = 8; y = 2; z = 3;

↳ Single Variable declaration

INVALID VARIABLE DECLARATION:-

Note: Not to start with numbers for variable declaration

Eg: 1num = 5

⇒ stu.name = "kathrik"

✓
In between space should not present

⇒ @num\$ = 8

✓
Special characters are not allowed

Eg: Collection data of person I by declaring Variables

Name = str

age = int

phone num = str

emailId = str

address = str

Ig: str

height = float

weight = float

education = str

work exp = float

Salary = float

Company Name = str

DOB = Date / str

Marital status = str

Gender = str

blood group = str

INPUT & OUTPUT FUNCTION:-

Input() - Input function

print() - Output function

Variables:-

* Variables are Containers for storing data Values.

Creating Variables:-

* Python has no Command for declaring a Variable

* A Variable is Created the moment you first assign a value to it

Eg: `x = 5` , `y = "John"`
`print(x)` `print(y)`

CASTING:-

* If you want to specify the data type of a Variable, this can be done with Casting.

Eg:

`x = str(3)` \Rightarrow x will be '3'

`y = int(3)` \Rightarrow y will be 3

`z = float(3)` \Rightarrow z will be 3.0

Type() :-

Get the data type of a Variable with type() function

Eg:- `x = 5` , `y = "John"`

`print(type(x))` \Rightarrow int

`print(type(y))` \Rightarrow str.

String Values Can be declared either by using Single or double Quotes

Eg:- $X = \text{"John"}$

$Y = \text{'John'}$

CASE-SENSITIVE:

* Variable Names are Sensitive

Eg:- $a = 4 \Rightarrow$ output 4

$A = \text{"Sally"} \Rightarrow \text{Sally}$

RULES FOR PYTHON VARIABLE:-

* A Variable name must start with a letter or Underscore character.

* A Variable Cannot start with number.

* A Variable name only contain [alphanumeric character, and Underscore] $[A-z, 0-9, -]$

* Variables names are Case-Sensitive

* A Variable name Cannot be any of the

Python keywords

Eg: Legal Variable Names

$\text{my_var} = \text{"John"} \checkmark$

$\text{myvar} = \text{"John"} \checkmark$

$\text{myVar} = \text{"Joh"} \checkmark$

$\text{my_Var} = \text{"John"} \checkmark$

illegal Variable Names

$2\text{my_var} = \text{"John"} \times$

$\text{my_var} = \text{"John"} \times$

Output VARIABLES:-

* In python `print()` \Rightarrow function is used to output variables

Eg:-
`x = "python is awesome"`
`print(x)`

output = python is awesome

`print()` \Rightarrow Can use multiple variable inside
Separated by comma

Eg:-
`print(x, y, z)`

Note:- To combine a string and number with '+' operator is not possible

Eg: `x = 5`

`y = "john"` `print(x + y)`

output: Unsupported operands types