

## ⊛ Python Variables

- A variable is a name given to a memory location.
- Python is not "statically typed". We do not need to declare variables before using them or declare their type.
- A variable is created the moment we first assign a value of it.

for example `a = 10`

- Rules for creating variables in Python:-
- A variable name must start with a letter or the underscore character.
- It cannot start with a number.
- It only contain alpha-numeric characters and underscores (A-z, 0-9 and -)
- Keyword cannot be used naming the variable.

- Variable names are case-sensitive.  
(name, Name and NAME are three different variables)

- Simple variable creation :-

```
Age = 45 # integer assignment
salary = 1564.8 # floating point
name = "Palvi" # string
```

```
print(Age)
print(salary)
print(name)
```

```
Output :- 45
          1564.8
          Palvi
```

- Declare the Variable :- declare the variable and print the variable.

```
number = 100 # declaring the var
print(number) # display
```

```
Output = 100
```

assign the value to the variable.

- o Re-declare the variable (changing the value of a variable)

```
for example: website = "google.com"  
print(website)
```

```
# assigning a new value to website  
website = "jpwebdevelopers.in"  
print(website)
```

```
Output: google.com  
jpwebdevelopers.in
```

- o Assigning a single value to multiple variables

Python allows a single value to several variables with "=" operators.

```
for example: a = b = c = 10  
print(a)  
print(b)  
print(c)
```

- o Assigning different values to multiple variables  
python allows, different values in a single line with "," operator.

```
for example: a = b = c = 1, 20, 2, "palvi"  
print(a)  
print(b)  
print(c)
```

## \* Global and Local Variables in Python :-

- Local Variables :- local variables, that are defined and declared inside a function.

→ we cannot call this variable outside the function.

```
example def fun():  
        s = "jwae developers"  
        print(s)  
  
fun()
```

# This function used var inside the function

→ Local variables can only be reached within <sup>their</sup> scope.

- Global Variables :- In Python, a variable declared outside of the function is known as a global variable.

→ Global variable can be accessed inside OR outside of the function

```
for example:- x = global  
def fun():  
    print("x inside", x)  
  
fun()  
print("x outside", x)
```