**Python variable**

* Variables are containers for storing data values.
* Python does not have a command to declare the variables.
* Variable is created when assign a value to it.
* Variable does not need to declare with a type since it automatically identifies the type of it by its value
* Type of the Variable can be changed after they have been set.

Example

*#Creating a variable*x=5  
print (x) *# 5*y="john"  
print(y)*#john*

**Variable Name**

* Variable can have short or descriptive name
* Variable name must be start with a letter or the underscore
* Variable name cannot start with a number
* Variable name can only alpha-numeric and underscores (A-Z,0-9, and \_)
* Variable names are case sensitive. (age, Age, AGE are three variables)

Ex:

myvar = "John"  
my\_var = "John"  
\_my\_var = "John"  
myVar = "John"  
MYVAR = "John"  
myvar2 = "John"

**Multi-words variable name**

Variable names with more than one word can be make more readable using one of the three techniques

* Camel case – Each word, except the first, starts with a capital letter

myVariableName = "John"

* Pascal case – Each word starts with a capital letter

MyVariableName = "John"

* Snake case – Each word is separated by an underscore

my\_variable\_name = "John"

**Assign Multiple Values**

Python allows to assign multiple variable in oneline

*#Many Values to Multiple Variables*x,y,z="Orange","Banana", "Cherry"  
print(x,y,z) *# Orange Banana Cherry*

**One value to multiple variables**

Python allows to assign the same value to multiple variables

*#One Value to Multiple Variables*X=Y=Z=3  
print(X,Y,Z) *# 3 3 3*

Unpacking

If you have a collection of values in a list, tuple, set etc, can extract those values into variables. This is called unpacking

*#Unpacking*list=["QA","Dev","BA"]  
v1,v2,v3=list  
print(v1,v2,v3) *# "QA","Dev","BA"*tup=("Dev","BA","QA")  
v4,v5,v6=tup  
print(v4,v5,v6)*#Dev BA QA*set=("BA","QA","Dev")  
v7,v8,v9=tup  
print(v7,v8,v9)*#Dev BA QA*

**Global variable & Local Variable**

Variable that is created outside a function are know as global variables. These variables can be used by everyone, both inside of functions and outside.

If create a variable within function called as local variable. It can be only used inside the function and cannot call outside the function.

*#Gloabl and local Variables*global = "Fantastic"  
def myFun():  
 local="awesome"  
 print("pyhton is "+ local +" and "+ global)  
myFun() *# pyhton is awesome and Fantastic*print("pyhton is "+ global)*#pyhton is Fantastic*

**The global Keyword**

To create global variable inside the function, can use “global” keyword with the variable name and then assign the value to the variable separately.

*#Global keyword*def myFunction():  
 global new  
 new = "Animal"  
 print("My global variable calls inside the function : " + new) *#My global variable calls inside the function : Animal*myFunction()  
print("My global variable calls outside the function : " + new) *#My global variable calls outside the function : Animal*

This keyword can be used to change the value of the global variable within the function as well.

*# Change the value of the global variable*myGlobalVariable = "Hello Chami"  
  
  
def call():  
 global myGlobalVariable  
 myGlobalVariable = "Chavo Chami"  
  
  
call()  
print(myGlobalVariable)