* Variables

A variable is a container in which you can store certain values. They are accessed while a program is running. You can also assign a new value to an already defined variable.

A variable can consist uppercase (A-Z) as well as lowercase(a-z) letters, and the digits 0 through 9. No special characters can be put while naming a VARIABLE except the underscore” \_”. All the variables are case sensitive.

**The underscore functioned as a word separator, because blanks are not allowed in variable names. Some people prefer to write Variable names in the so-called CamelCase notation**

Variables reserve memory locations to store values which means whenever you create a variable it reserves some space in memory by the interpreter based on the data type of variable.

Variable provides you to assign a single value to various different variables. And you can also check that it holds the same space in memory by using Id() function in python.

**For Example:**

**>>>A=20** #the interpreter reserves a space to store “A” as containing value 20

>>> id(A)

>>>250678955

**>>>B=20** #the variable “B” also refers to the value 20 as same as that of 20

>>> id(B)

>>>250678955

*So in above examples if you call any of the one variable it will reflect the value 20.*

You can also assign multiple values to multiple variables simultaneously

**For Example:**

**>>>A,B,C,D = 10,20,”gaurav”,”pankesh”** #A,B,C,D will hold the following values respectively

Once a variable is defined it refers to a specific value and if the same variable is redefined with a new value it reads the initial value and make changes as desired.

For Example:

**>>>A= 10**  #we have assigned a specific value for “A” which is 10

**>>>A= A+1** #Now it will read the initial value of “A” i.e. 10 and will add 1 to it as per the statement

So then the variable “A” will be holding the value = 11