**There are techniques to print output of a variable:**  
Ex1:   
    a=10  
    print(a)  
    print("The value of a is: ", a)  
      
Ex2:  
    a=10  
    b=20  
    print(a+b)  
    c=a+b  
    print(c)  
    print("the sum of ", a, "and ", b, "is: ", c )  
      
Ex3:  
    a=10  
    b="A"  
    c=a+b  
    print(c)  
this will show some error. But if we want to add two or more string-  
a="A"  
b="B"  
print(a+b)  
this is valid.  
  
**Scope of a variable in python:**  
  
The value of a function creted inside any block has the scope only to that block. otherwisethe global value is appeared.  
    a=10  
    def func():  
        print(a)  
          
    func()  
    it will print the given value of a  
    lets have another example-  
    a=10  
    def func():  
        a=100  
        print("Inside value of a is: "a)  
    print("Outside value of a is: ",a)  
    func()  
    -------------------------------  
Outside value of a is:  10  
Inside value of a is:  100  
**\*global keyword:** if we want to create a global variable from inside of a block  
a=10  
b=20  
def func():  
        a=100  
        global b  
        b=200  
        print("Inside value of a  is: ", a, "and b is: ",b)  
func()  
print("Outside value of a is: ",a, "and b is: ",b)  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Inside value of a  is:  100 and b is:  200  
Outside value of a is:  10 and b is:  200  
  
**Python has the following data types**   
built-in by default, in these categories:  
Text Type:str  
Numeric Types:int, float, complex  
Sequence Types:list, tuple, range  
Mapping Type:dict  
Set Types:set, frozenset  
Boolean Type:bool  
Binary Types:bytes, bytearray, memoryview  
  
-we cacheck the type of any data by **type()** function  
a=10  
print(type(a))  
  
  
The data types are automatically be assigned when we put some value on it.  
  
**Setting the Specific Data Type**  
a=int(input("Enter some value: "))  
  
  
If you want to specify the data type, you can use the following constructor functions:  
Example  
x = str("Hello World")  
 »x = int(20)  
 »x = float(20.5)  
 »x = complex(1j)  
  »x = list(("apple", "banana", "cherry"))  
   »x = tuple(("apple", "banana", "cherry"))  
    »x = range(6)  
    »x = dict(name="John", age=36)  
    »x = set(("apple", "banana", "cherry"))  
    »x = frozenset(("apple", "banana", "cherry"))  
    »x = bool(5)  
    »x = bytes(5)  
    »x = bytearray(5)  
    »x = memoryview(bytes(5))  
  
**Type Casting:**  
      
      
Specify a Variable Type  
There may be times when you want to specify a type on to a variable. This can be done with casting. Python is an object-orientated language, and as such it uses classes to define data types, including its primitive types.  
  
Casting in python is therefore done using **constructor functions**:

* **int()** - constructs an integer number from an integer literal, a float literal (by removing all decimals), or a string literal (providing the string represents a whole number)
* **float()** - constructs a float number from an integer literal, a float literal or a string literal (providing the string represents a float or an integer)
* **str()** - constructs a string from a wide variety of data types, including strings, integer literals and float literals