**Standard Data Types**

Python has five standard data types:

1. Numbers
2. String
3. List
4. Tuple
5. Dictionary

# Type Conversion in Python

Python defines type conversion functions to directly convert one data type to another

1. **int(a,base):** This function converts any data type to integer. ‘Base’ specifies the base in which string is if data type is string.
2. **float():** This function is used to convert any data type to a floating point number
3. **ord():** This function is used to convert a character to integer.
4. **hex():** This function is to convert integer to hexadecimal string.
5. **oct():** This function is to convert integer to octal string.
6. **complex(real,imag):** This function converts real numbers to complex(real,imag) number.
7. **str():** Used to convert integer into a string.
8. **tuple():** This function is used to convert to a tuple.
9. **set():** This function returns the type after converting to set.
10. **list():** This function is used to convert any data type to a list type.
11. **dict():** This function is used to convert a tuple of order (key,value) into a dictionary.

**Python 3**

#!/usr/bin/python

s = "10010"

c = int(s,2)

print ("After converting to integer base 2 : ", end="")

print (c)

e = float(s)

print ("After converting to float : ", end="")

print (e)

s = '4'

c = ord(s)

print ("After converting character to integer : ",end="")

print (c)

c = hex(56)

print ("After converting 56 to hexadecimal string : ",end="")

print (c)

c = oct(56)

print ("After converting 56 to octal string : ",end="")

print (c)

c = complex(5)

print ("After converting 5 to complex number : ",end="")

print (c)

Output:

After converting to integer base 2 : 18

After converting to float : 10010.0

After converting character to integer : 52

After converting 56 to hexadecimal string : 0x38

After converting 56 to octal string : 0o70

After converting 5 to complex number : (5+0j)

a = 1

c = str(a)

print ("After converting integer to string : ", end="")

print (c)

s = 'a sentence'

c = tuple(s)

print ("After converting string to tuple : ", end="")

print (c)

c = set(s)

print ("After converting string to set : ", end="")

print (c)

c = list(s)

print ("After converting string to list : ", end="")

print (c)

tup = (('a', 1) ,('f', 2), ('g', 3))

c = dict(tup)

print ("After converting tuple to dictionary : ", end="")

print (c)

Output:

After converting integer to string : 1

After converting string to tuple : ('a', ' ', 's', 'e', 'n', 't', 'e', 'n', 'c', 'e')

After converting string to set : {'c', 'e', 'n', ' ', 't', 's', 'a'}

After converting string to list : ['a', ' ', 's', 'e', 'n', 't', 'e', 'n', 'c', 'e']

After converting tuple to dictionary : {'g': 3, 'f': 2, 'a': 1}

Result will be same in Python 2.