**Type conversion**

Type conversion is the process of converting the value of one data type to another datatype. Converting int, float, char to another.

There are two types of type conversions available in python

1. Implicit
2. Explicit

**Implicit**

In implicit type conversion, Python automatically converts one datatype to another datatype. This process doesn’t need any user involvement.

**Example: Integer to float**

int\_num=12

flo\_num=1.2

new\_num=(int\_num+flo\_num)

print("Data type of int\_num",type(int\_num))

print("Data type of flo\_num",type(flo\_num))

print("Value of new\_num:", new\_num)

print("Data type of new\_num:",type(new\_num))

**Explicit**

In explicit type conversion, user convert the data type of an object to required data type. We use printable functions like int(), float(), str() to perform explicit type conversion.

This type of conversion is also called typecasting because the user casts(Changes) the data type of the objects.

<required\_datatype>(expression)

**Example: Integer to string**

num = 10

print("Data type befor Convesion:", type(num))

converted\_num = str(num)

print("Data type after conversion:", type(converted\_num))

**Example: Integer to Boolean**

a= True

print("Data type before conversion:", type(a))

new=int(a)

print("Data type after conversion:", type(new))

**Example: String to Integer**

num\_int=123

num\_str="123"

print("Data type of num\_int:",type(num\_int))

print("Datatype of num\_str before Type Casting:",type(num\_str))

num\_str=int(num\_str)

print("Data type of num\_str after Type Casting:",type(num\_str))

num\_sum=num\_int+num\_str

print("Sum of num\_int and num\_str:",num\_sum)

print("Data type of the sum:", type(num\_sum))

**Example: String to Float**

NumStr="10.5"

NumInt=15

print("Data type of NumStr:", type(NumStr))

print("Data type of NumInt:", type(NumInt))

newInt=float(NumStr)

print("Data type of NewInt:",type(newInt))

**Example: String to Boolean**

string1="Gowda"

print("Data type before conversion:", type(string1))

newBool=bool(string1)

print("Data type after conversion:",type(newBool))

print(newBool)

**Example: Float to Integer**

numFloat=2.0

print("Data type before conversion",type(numFloat))

newInt=int(numFloat)

print("Data type after conversion:", type(newInt))

print(newInt)

**Example: Float to String**

numFloat=2.0

print("Data type before conversion",type(numFloat))

print(numFloat)

newStr=str(numFloat)

print("Data type after conversion:", type(newStr))

print(newStr)

**Example: Float to Boolean**

numFloat=2.0

print("Data type before conversion",type(numFloat))

print(numFloat)

newBool=bool(numFloat)

print("Data type after conversion:", type(newBool))

print(newBool)

**Example: Boolean to Integer**

valBool= True

print("Data type before conversion",type(valBool))

print(valBool)

newInt=int(valBool)

print("Data type after conversion:", type(newInt))

print(newInt)

**Example: Boolean to String**

valBool= True

print("Data type before conversion",type(valBool))

print(valBool)

newStr=str(valBool)

print("Data type after conversion:", type(newStr))

print(newStr)

**Example: Boolean to Float**

valBool= True

print("Data type before conversion",type(valBool))

print(valBool)

newFloat=float(valBool)

print("Data type after conversion:", type(newFloat))

print(newFloat)