Type Casting

June 28, 2022

1 Type Conversion - Type Casting

[1]:
```
a = 20          #int
b = 13.16     #float
c = 2 + 17j    #complex
d = "77"        #string
```

[2]:
```
#converting float to int
print (int(b))
```

```
13
```

[3]:
```
#converting int to float
print (float(a))
```

```
20.0
```

[4]:
```
#converting int to complex
print (complex(a))
```

```
(20+0j)
```

[5]:
```
#converting float to complex
print (complex(b))
```

```
(13.16+0j)
```

[6]:
```
#converting to complex
print (complex(a, b))
```

```
(20+13.16j)
```

[7]:
```
#converting string to int
str1 = "77"
d=int(str1)
print (type(d))
```

```
<class 'int'>
```

[8]:
```
e=str(a)
e
```

[8]:
```
'20'
```

[9]:
```
#converting to bin
print(bin(2))
```

```
0b10
```

[10]:
```
#converting to hexadecimal
print(hex(2))
```

```
0x2
```

[11]:
```
#converting to Octal
print(oct(2))
```

```
0o2
```

Implict type conversion

[12]:
```
a=10
b=20.5
c=a+b
c
```

[12]:
```
30.5
```

Taking Input from user

[13]:
```
a = input("Whats Your Name : ")
print(a)
print(type(a))
```

```
Whats Your Name : Nitheesh
Nitheesh
<class 'str'>
```

[14]:
```
b = input("Whats Your Age : ")
print(b)
print(type(b))
```

```
Whats Your Age : 25
25
<class 'str'>
```

[15]:
```
b = int(input("Whats Your Age : "))
print(b)
print(type(b))
```

```
Whats Your Age : 25
25
<class 'int'>
```

1.0.1 Using float( ) with Special parameters - Infinity, Nothing, NaN

We can use float( ) to represent infinity.

[16]:
```
positive_inf=float('inf')
print("float('inf') = ",positive_inf,";Type-",type(positive_inf))
```

```
float('inf') =  inf ;Type- <class 'float'>
```

[17]:
```
# For negative infinity, put minus in front of float
negative_inf=-float('inf')
print("negative_inf:",negative_inf)
```

```
negative_inf: -inf
```

[18]:
```
# For negative infinity, put minus in front of inf
negative_inf=float('-inf')
print("negative_inf_1:",negative_inf)
```

```
negative_inf_1: -inf
```

Passing nothing to the float( ) method gives us its default value

[19]:
```
val=float()
print("Default value of float()= ",val,";Type-",type(val))
```

```
Default value of float()=  0.0 ;Type- <class 'float'>
```

NaN, the function returns nan with the type float.

[20]:
```
val2=float('NaN')
print("float('NaN')= ",val2,";Type-",type(val))
```

```
float('NaN')=  nan ;Type- <class 'float'>
```