Type Casting is the method to convert the variable data type into a certain data type in order to perform the operation required to be performed by users. In this article, we will see the various techniques for typecasting.

There can be two types of Type Casting in Python –

- Implicit Type Casting
- Explicit Type Casting

Implicit Type Conversion

In this method, Python converts data type into another data type automatically. In this process, users don’t have to be involved in this process.

- Python3

```
# Python program to demonstrate
# implicit type Casting

# Python automatically converts
# a to int
a = 7
print(type(a))

# Python automatically converts
# b to float
b = 3.0
print(type(b))

# Python automatically converts
# c to float as it is a float
addition
c = a + b
print(c)
print(type(c))

# Python automatically converts
# d to float as it is a float
multiplication
d = a * b
print(d)
print(type(d))
```

Output:

```
<class 'int'>
<class 'float'>
10.0
<class 'float'>
21.0
<class 'float'>
```

Explicit Type Casting

In this method, Python needs user involvement to convert the variable data type into a certain data type in order to the operation required.

Mainly in type casting can be done with these data type function:

- **Int() :** Int() function takes a float or string as an argument and returns an int type object.
- **float() :** float() function takes int or string as an argument and returns a float type object.
- **str() :** str() function takes float or int as an argument and returns a string type object.

Let's see some example of type casting:

Type Casting int to float:

Here, we are casting an integer object to a float object with **float()** function.

- Python3

```
# Python program to
demonstrate
# type Casting

# int variable
a = 5

# typecast to float
n = float(a)

print(n)
print(type(n))
```

Output:

```
5.0
<class 'float'>
```

Type Casting float to int:

Here, we are casting float data type into integer data type with **int()** function.

- Python3

```
# Python program to
demonstrate
# type Casting

# int variable
a = 5.9

# typecast to int
n = int(a)

print(n)
print(type(n))
```

Output:

```
5
<class 'int'>
```

Type casting int to string:

Here, we are casting int data type into string data type with **str()** function.

- Python3

```
# Python program to
demonstrate
# type Casting

# int variable
a = 5

# typecast to str
n = str(a)

print(n)
print(type(n))
```

Output:

```
5
<class 'str'>
```

Type Casting string to int:

Here, we are casting string data type into integer data type with **int()** function.

- Python3

```
# Python program to
demonstrate
# type Casting

# string variable
a = "5"

# typecast to int
n = int(a)

print(n)
print(type(n))
```

Output:

```
5
<class 'int'>
```

Type Casting String to float:

Here, we are casting string data type into float data type with **float()** function.

- Python3

```
# Python program to
demonstrate
# type Casting

# string variable
a = "5.9"

# typecast to float
n = float(a)

print(n)
print(type(n))
```

Output:

```
5.9
<class 'float'>
```