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# -*- coding: utf-8 -*-
"""
Type Conversion in Python
"""

Python defines type conversion functions to directly convert one data type to another
which is useful in day to day and competitive programming.
"""

1. int(a,base) : This function converts any data type to integer. 'Base' specifies the base in v
"""

# Python code to demonstrate Type conversion
# using int(), float()

# initializing string
s = "10010"

# printing string converting to int base 2
c = int(s,2)
print ("After converting to integer base 2 : ", end="")
print (c)

"""
2. float() : This function is used to convert any data type to a floating point number
"""

# printing string converting to float
e = float(s)
print ("After converting to float : ", end="")
print (e)

"""
3. ord() : This function is used to convert a character to integer.
"""

# Python code to demonstrate Type conversion
# using ord(), hex(), oct()

# initializing integer
s = '4'

# printing character converting to integer
c = ord(s)
print ("After converting character to integer : ",end="")
print (c)

"""
4. hex() : This function is to convert integer to hexadecimal string.
"""

# printing integer converting to hexadecimal string
c = hex(56)
print ("After converting 56 to hexadecimal string : ",end="")
print (c)

"""
5. oct() : This function is to convert integer to octal string.
"""

# printing integer converting to octal string
c = oct(56)
print ("After converting 56 to octal string : ",end="")
print (c)

"""
6. tuple() : This function is used to convert to a tuple.

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"""
# Python code to demonstrate Type conversion
# using tuple(), set(), list()

# initializing string
s = 'geeks'

# printing string converting to tuple
c = tuple(s)
print ("After converting string to tuple : ",end="")
print (c)
"""

7. set() : This function returns the type after converting to set.
"""
# printing string converting to set
c = set(s)
print ("After converting string to set : ",end="")
print (c)
"""

8. list() : This function is used to convert any data type to a list type.
"""
# printing string converting to List
c = list(s)
print ("After converting string to list : ",end="")
print (c)

"""

9. dict() : This function is used to convert a tuple of order (key,value) into a dictionary.
"""
# Python code to demonstrate Type conversion
# using dict(), complex(), str()

# initializing integers
a = 1
b = 2

# initializing tuple
tup = (('a', 1) ,('f', 2), ('g', 3))
# printing tuple converting to expression dictionary
c = dict(tup)
print ("After converting tuple to dictionary : ",end="")
print (c)

"""

10. str() : Used to convert integer into a string.
"""
# printing integer converting to string
c = str(a)
print ("After converting integer to string : ",end="")
print (c)
"""

11. complex(real,imag) : : This function converts real numbers to complex(real,imag) number.
"""
# printing integer converting to complex number
c = complex(1,2)
print ("After converting integer to complex number : ",end="")
print (c)

```