

# PYTHON TUTORIAL FOR BEGINNERS

Source: [www.youtube.com/@RishabhMishraOfficial](https://www.youtube.com/@RishabhMishraOfficial)

## Chapter - 06

### Type Casting in Python

- What is type casting
- Type Casting examples
- Type Casting - Types



### Type Casting

Type casting in Python refers to the process of **converting** a value from **one data type to another**. This can be useful in various situations, such as when you need to perform operations between different types or when you need to format data in a specific way. Also known as **data type conversion**.

Python has several built-in functions for type casting:

`int()`: Converts a value to an integer.

`float()`: Converts a value to a floating-point number.

`str()`: Converts a value to a string.

`list()`, `tuple()`, `set()`, `dict()` and `bool()`

### Type Casting Examples

Basic examples of type casting in python:

**# Converting String to Integer:**

```
str_num = "26"
```

```
int_num = int(str_num)
```

```
print(int_num)           # Output: 26
```

```
print(type(int_num))     # Output: <class 'int'>
```

### # Converting Float to Integer:

```
float_num = 108.56
int_num = int(float_num)
print(int_num)          # Output: 108
print(type(int_num))    # Output: <class 'int'>
```

## Types of Typecasting

There are two types of type casting in python:

- Implicit type casting
- Explicit type casting

### Implicit Type Casting

Also known as coercion, is performed automatically by the Python interpreter. This usually occurs when performing operations between different data types, and Python implicitly converts one data type to another to avoid data loss or errors.

### # Implicit type casting from integer to float

```
num_int = 10
num_float = 5.5
result = num_int + num_float # Integer is automatically
                              converted to float
print(result)                # Output: 15.5
print(type(result))          # Output: <class 'float'>
```

### Explicit Type Casting

Also known as **type conversion**, is performed **manually** by the programmer using built-in functions. This is done to ensure the desired type conversion and to avoid unexpected behavior.

### # Converting String to Integer:

```
str_num = "26"
```

```
int_num = int(str_num)
print(int_num)    # Output: 26
print(type(int_num)) # Output: <class 'int'>
```

# Converting a value to boolean:

```
bool(0) # Output: False
```

```
bool(1) # Output: True
```



Python Tutorial Playlist: [Click Here](https://www.youtube.com/playlist?list=PLdOKnrf8EcP384Ilxra4UIK9BDJGwawg9)

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