Python Data Type Conversion Examples

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Note: These examples are written in easy English to help you understand Python data type conversion clearly.

1. Convert String to Integer

Use int() to convert string numbers into integers.

```
Example: num = '5' result = int(num) print(result) # Output: 5
```

2. Convert String to Float

Use float() to convert a string with decimal into a floating number.

```
Example: num = '10.5' result = float(num) print(result) # Output: 10.5
```

3. Convert Integer to String

Use str() to change numbers into text format.

```
Example: num = 20 result = str(num) print(result) # Output: '20'
```

4. Convert Float to Integer

Use int() to remove decimal part and convert float to integer.

```
Example: num = 9.8 result = int(num) print(result) # Output: 9
```

5. Convert Boolean to Integer

True becomes 1 and False becomes 0.

```
Example: print(int(True)) # Output: 1 print(int(False)) # Output: 0
```

6. Convert Integer to Boolean

Zero is False and any other number is True.

```
Example: print(bool(0)) # Output: False print(bool(5)) # Output: True
```

7. Convert List to Tuple or Set

Use tuple() or set() for conversion.

```
Example: nums = [1, 2, 3, 3] print(tuple(nums)) # (1, 2, 3, 3) print(set(nums)) #
{1, 2, 3}
```

8. Convert List of Strings to Integers

You can convert all string numbers into integers using list comprehension.

```
Example: nums = ['10', '20', '30'] new_nums = [int(n) for n in nums] print(new_nums)
# [10, 20, 30]
```

9. Convert List to String

Use join() to join list items into one string.

```
Example: words = ['Hello', 'World'] result = ' '.join(words) print(result) # 'Hello
World'
```

10. Invalid Conversion Example

Some conversions are not possible and give error.

```
Example: text = 'Hello' print(int(text)) # Error: invalid literal for int()
```