## CHAPTER 9 PYTHON

```
a + b + c
'Output': 'ILoveYou'

# let's add some space
a + ' ' + b + ' ' + c
```

## **Arithmetic and Boolean Operations**

This section introduces operators for programming arithmetic and logical constructs.

## **Arithmetic Operations**

In Python, we can operate on data using familiar algebra operations such as addition +, subtraction -, multiplication \*, division /, and exponentiation \*\*.

```
2 + 2  # addition
'Output': 4
5 - 3  # subtraction
'Output': 2
4 * 4  # multiplication
'Output': 16
10 / 2  # division
'Output': 5.0
2**4 / (5 + 3)  # use brackets to enforce precedence
'Output': 2.0
```

## **Boolean Operations**

Boolean operations evaluate to True or False. Boolean operators include the comparison and logical operators. The comparison operators include less than or equal to  $\leq$ , less than  $\leq$ , greater than or equal to  $\leq$ , greater than  $\leq$ , not equal to  $\leq$ , and equal to  $\leq$ .

```
2 < 5
'Output': True
2 <= 5
'Output': True</pre>
```