1. Positional-only parameters(/)

There is a new function parameter syntax “/” which indicates that some function parameters must be specified positionally and can’t be used as keyword arguments.

Assignment Expressions(:=)

This operator is used to assign and return a value in the same expression. This removes the need for initializing the variable upfront.

f-strings now support “=”

This string formatting mechanism is known as Literal String Interpolation or more commonly as F-strings (because of the leading f character preceding the string literal). The idea behind f-strings is to make string interpolation simpler. Python 3.8 allows the use of the above-discussed assignment operator and equal sign (=) inside the f-strings.

reversed() works with a dictionary Unlike Python 3.7, now in Python 3.8, the built-in method “reversed()” can be used for accessing the elements in the reverse order of insertion.

No parentheses for return and yield statements ‘yield’ and ‘return’ statements do not require parentheses to return multiple values.

pow() function In the three-argument form of pow(), when the exponent is -1, it calculates the modular multiplicative inverse of the given value.

Syntax Warning If you miss a comma in your code such as a = [(1, 2) (3, 4)], instead of throwing TypeError, it displays an informative Syntax warning.

2. In python, monkey patching refers to run-time modifications of a class or module. In Python, we can actually change the behavior of code at run-time.

3. Shallow Copy

When a shallow copy of a DataFrame or Series object is created, it doesn’t copy the indices and the data of the original object but it simply copies the references to its indices and data. As a result of which, a change made to one is reflected in the other one.

Deep Copy

A deep copy of a DataFrame or a Series object has its own copy of index and data. It is a process in which the copying process occurs recursively. It means first constructing a new collection object and then recursively populating it with copies of the child objects found in the original. In the case of deep copy, a copy of an object is copied into another object. It means that any changes made to a copy of the object do not reflect in the original object.

4. 79 characters

5. It is like a list comprehension but it returns an iteraor. We use () instead of [] to achieve this.

numbers = (i for i in range(5))

print(numbers)

print(next(numbers))

print(next(numbers))

print(next(numbers))

print(next(numbers))

print(next(numbers))