1. What are the new features added in Python 3.8 version?

Ans: Walrus Operator: This operator is used to assign and return a value in the same expression. This removes the need for initializing the variable upfront. The major benefit of this is it saves some lines of code. It is also known as

The Walrus Operator due to its similarity to the eyes and tusks of a walrus.

yield and return statements do not require parentheses to return multiple values.

Reversed works with a dictionary. The built-in method reversed() can be used for accessing the elements in the reverse order of insertion

Dict comprehensions have been modified so that the key is computed first and the value second.

importlib\_metadata is a new library added in the Python’s standard utility modules, that provides an API for accessing an installed package’s metadata, such as its entry points or its top-level name.

f-strings now support = , to make string interpolation easy. Python 3.8 allows the use of the above-discussed assignment operator and equal sign (=) inside the f-strings.

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

The csv.DictReader now returns instances of a dictionary instead of a collections.OrderedDict.

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.

1. What is monkey patching in Python?

Ans: In Python, the term monkey patching refers to dynamic (or runtime) changes to classes or modules. Python actually allows you to change the behavior of your code at runtime.

1. What is the difference between a shallow copy and deep copy?

Ans: copy() is called shallow copy, if changes made in copied object will get changed even in original object as they both referencing same address location

deepcopy() is called deep copy as changes made in copied object will not get changed in original object as they both not referencing same address location

1. What is the maximum possible length of an identifier?

Ans: In Python, the highest possible length of an identifier is 79 characters. Python is a high level programming language. It’s also a complex form and a collector of waste.

Particularly when combined with identifiers, it is case-sensitive. Unlikely, Python gives the identifiers unlimited length.

However, the layout of PEP-8 prevents the user from breaking the rules and includes a 79-character limit.

1. What is generator comprehension?

Ans: A generator comprehension is a one-line specification for defining a generator in Python.

Generator comprehensions use parentheses instead of list comprehensions' square brackets. The

generator outputs article after article and only produces articles when needed. On the other hand, with list comprehensions, Python allocates memory for the entire list. Therefore, generator expressions are more memory efficient than lists.