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

A1.

Some of the new features added in Python 3.8 version are:

Assignment expressions using the walrus operator (:=)

Positional-only parameters in functions

f-strings support the new "=" specifier for easier debugging

The "breakpoint()" function for debugging purposes

A new asyncio implementation of the selectors module

Improved error messages and warnings

2.What is monkey patching in Python?

A2.

Monkey patching in Python refers to the practice of dynamically modifying the behavior of a class or module at runtime. This can be done by reassigning attributes or methods of a class or module with new values. Monkey patching can be useful in certain situations, such as when testing code or when working with third-party libraries that need to be modified.

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

A3.

In Python, a shallow copy creates a new object that references the same memory locations as the original object. Changes made to the original object are reflected in the copied object. In contrast, a deep copy creates a new object with its own memory space, so changes made to the original object are not reflected in the copied object.

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

A4.

In Python, the maximum possible length of an identifier is implementation-dependent. However, the recommended maximum length is 79 characters.

5.What is generator comprehension?

A5

. Generator comprehension is a concise way to create a generator object in Python. It uses a similar syntax to list comprehension, but instead of creating a list, it creates a generator object. This is useful when working with large datasets, as it allows you to iterate over the data without loading it all into memory at once. The syntax for generator comprehension is similar to list comprehension, but uses parentheses instead of square brackets.