- 1. What are the new features added in Python 3.8 version?
- 2. What is monkey patching in Python?
- 3. What is the difference between a shallow copy and deep copy?
- 4. What is the maximum possible length of an identifier?
- 5. What is generator comprehension?
 - 1. What are the new features added in Python 3.8 version? Python 3.8 introduced several new features, including:
 - The walrus operator (:=) which allows the assignment of values to variables as part of an expression
 - Positional-only parameters in functions
 - f-strings now support = to specify a format specifier for the expression being formatted
 - The math.isqrt() function for computing the integer square root of a number
 - Improved support for debugging and tracing in the interpreter
 - 2. What is monkey patching in Python? Monkey patching is a technique in Python where you can dynamically modify a class or module at runtime. This allows you to add, replace or remove attributes or methods of an object, even if you don't have access to the original source code. While monkey patching can be a powerful tool in certain situations, it can also make code harder to read and maintain, so it should be used with caution.
 - 3. What is the difference between a shallow copy and deep copy? In Python, a shallow copy creates a new object that points to the same memory location as the original object. This means that changes made to the new object will also affect the original object. A deep copy, on the other hand, creates a new object with its own memory that is independent of the original object. Changes made to the new object will not affect the original object.
 - 4. What is the maximum possible length of an identifier? In Python, the maximum possible length of an identifier is implementation-dependent. However, in practice, most implementations limit the length to 255 characters.
 - 5. What is generator comprehension? Generator comprehension is a concise way to create a generator object in Python. It is similar to list comprehension, but instead of creating a list, it creates a generator that generates values on-the-fly as they are needed. Generator comprehension is written using parentheses instead of brackets, and the output is generated lazily, which can be more memory-efficient for large datasets. For example: (x**2 for x in range(10)) would create a generator that yields the squares of the numbers 0 to 9 as they are iterated over.