Python Interview Questions

Q: What is Python?

A: Python is a high-level, interpreted programming language known for its simplicity and readability.

Q: What are Python's key features?

A: Easy to read syntax, dynamic typing, automatic memory management, and a large standard library.

Q: What is a list comprehension?

A: A concise way to create lists using a single line of code.

Q: What is a lambda function?

A: An anonymous function expressed as a single statement using the lambda keyword.

Q: What is the difference between a list and a tuple?

A: Lists are mutable, whereas tuples are immutable.

Q: What is PEP 8?

A: PEP 8 is the Python Enhancement Proposal that provides coding style guidelines for Python code.

Q: What are *args and **kwargs?

A: *args passes variable number of non-keyworded arguments; **kwargs passes keyworded arguments.

Q: What is a Python generator?

A: A generator yields items one at a time and maintains state using the yield keyword.

Q: What is the difference between 'is' and '=='?

A: 'is' checks identity, '==' checks value equality.

Q: What is the Global Interpreter Lock (GIL)?

A: GIL is a mutex that protects access to Python objects, limiting execution to one thread at a time.