1. **what is python? why is it so popular?**

* The python language is one of the most accessible programming languages available because it **has simplified syntax and is not complicated, which emphasizes** natural language. Due to its ease of learning and usage, python codes can be easily written and executed much faster than other programming languages.
* Python is a computer programming language often used to build websites and software, automate tasks, and conduct data analysis. Python is a **general-purpose language**, meaning it can be used to create a variety of different programs and isn't specialized for any specific problems.

1. **Features in Python**

There are many features in Python, some of which are discussed below –

1. Easy to code
2. Free and Open Source
3. Object-Oriented Language
4. High-Level Language

5. Extensible feature

6. Python is a Portable language

7. Python is an integrated language

8. Interpreted Language

9. Large Standard Library

10. Dynamically Typed Language

1. **what type of language is python programming or scripting?**

Python is **a scripting language**. It is also an interpreted and high-level programming language for the purpose of general programming requirements. It was designed and developed by the Software Developer named Guido van Rossum.

1. **what is pep 8?**

* PEP 8, sometimes spelled PEP8 or PEP-8, is a document that provides guidelines and best practices on how to write Python code. The primary focus of PEP 8 is to improve the readability and consistency of Python code.
* PEP stands for Python Enhancement Proposal, A PEP is a document that describes new features proposed for Python and documents aspects of Python, like design and style, for the community.

1. **python is an interpreted language. explain**

* Python is an interpreted language, which means the source code of a Python program is converted into bytecode that is then executed by the Python virtual machine.
* **Python code is fast to develop**: As the code is not needed to be compiled and built, Python code can be readily changed and executed

1. **How is memory managed in Python?**

Memory management in Python involves a private heap containing all Python objects and data structures. The management of this private heap is ensured internally by the **Python memory manager**. The Python memory manager has different components which deal with various dynamic storage management aspects, like sharing, segmentation, preallocation, or caching.

1. **what is namespace in python**

A namespace is a system that has a unique name for each and every object in Python. An object might be a variable or a method. Python itself maintains a namespace in the form of a Python dictionary.