Part 1

PYTHON INTERVIEW QUESTIONS FOR FRESHERS

SWIPE →

Q1: What are the benefits of using Python?

Python is a **general-purpose programming language** that has a simple, easy-to-learn syntax that emphasizes readability and therefore reduces the cost of program maintenance.

Moreover, the language is capable of **scripting,** is completely **open-source**, and supports **third-party packages** encouraging modularity and code reuse.

Its **high-level data structures**, combined with dynamic typing and dynamic binding, attract a huge community of developers for Rapid Application Development and deployment.

Q2: What is a dynamically typed language?

Type-checking can be done at two stages -

- **Static** - Data Types are checked before execution.
- **Dynamic** - Data Types are checked during execution.

Python is an interpreted language, executes each statement line by line and thus type-checking is done on the fly, during execution. Hence, Python is a Dynamically Typed Language.

Q3: What is an Interpreted language?

An Interpreted language executes its statements **line by line**.

Languages such as Python, Javascript, R, PHP, and Ruby are prime examples of Interpreted languages.

Programs written in an interpreted language runs directly from the source code, with no intermediary compilation step.

Q4: What is PEP 8 and why is it important?

PEP stands for **Python Enhancement Proposal.**

A PEP is an official design document providing information to the Python community, or describing a new feature for Python or its processes.

PEP 8 is especially important since it documents the style guidelines for Python Code.

Apparently contributing to the Python open-source community requires you to follow these style guidelines sincerely and strictly.

Q5: What is Scope in Python?

A scope is a block of code where an **object in Python remains relevant.** Examples:

- A local scope refers to the local objects available in the current function.
- A global scope refers to the objects available throughout the code execution since their inception.
- A module-level scope refers to the global objects of the current module accessible in the program.
- An outermost scope refers to all the built-in names callable in the program. The objects in this scope are searched last to find the name referenced.

Q6: What are lists and tuples? What is the key difference between the two?

Lists and Tuples are both **sequence data types** that can store a collection of objects in Python. The objects stored in both sequences can have different data types. Lists are represented with square brackets ['sara', 6, 0.19], while tuples are represented with parantheses ('ansh', 5, 0.97).

The key difference between the two is that while lists are mutable, tuples on the other hand are immutable objects. This means that lists can be modified, appended or sliced on the go but tuples remain constant and cannot be modified in any manner.

Q7: What are the common built-in data types in Python?

Although, Python doesn't require data types to be defined explicitly during variable declarations type errors are likely to occur if the knowledge of data types and their compatibility with each other are neglected. These data types can be grouped into the following categories:

- None Type
- Numeric Types
- Sequence Types
- Mapping Types
- Set Types
- Modules
- Callable Types

Q8: What is pass in Python?

The pass keyword represents a **null operation.**

It is generally used for the purpose of filling up empty blocks of code which may execute during runtime but has yet to be written. Without the pass statement in the following code, we may run into some errors during code execution.

```
def myEmptyFunc():
    # do nothing
    pass
myEmptyFunc()    # nothing happens
## Without the pass keyword
# File "<stdin>", line 3
# IndentationError: expected an indented block
```

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