Python Data Types – Interview & Machine Test Guide

This guide covers important Python Data Type interview and machine test questions with answers and examples to help you prepare effectively.

1. Basic-Level Questions

1 What are Python data types?
2 Difference between mutable and immutable types.
3 Explain numeric data types in Python with examples.
4 Difference between list and tuple.
5 What is a dictionary and how is it used?
6 What are sets and how are they different from lists?

2. Intermediate-Level Questions

1 Explain shallow copy vs deep copy.
2 What is a frozenset?
3 Can we store a list inside a tuple?
4 What happens when we compare different data types?
5 How can we convert one data type to another?

3. Advanced-Level Questions

1 Explain bytes and bytearray.
2 What is the difference between 'is' and '==' operators?
3 Why are strings immutable in Python?
4 How are tuples useful compared to lists?
5 How Python stores objects in memory?

4. Machine Test Practice Questions

1 Write a Python program to count frequency of each data type in a list.
2 Convert a list of tuples into a dictionary.
3 Write a Python function to check if all elements in a list are of same data type.
4 Convert a list into a tuple and back to a list again.
5 Write a function to remove duplicates from a list without using set().
6 Check whether a given variable is mutable or immutable.
7 Write a program to reverse a tuple without using reversed() function.
8 Demonstrate deep copy and shallow copy difference with output.

■ Tip: During interviews, always explain the *why* behind each data type usage — mutability, performance, and memory behavior are key talking points.