

1. What is List? How will you reverse a list?

-> A list is a mutable, ordered collection of items in Python. It can contain elements of different data types.

Reverse a list: Use `list.reverse()` to reverse the list in place, or `reversed_list = list[::-1]` to create a reversed copy.

2. Differentiate between `append ()` and `extend ()` methods?

-> `append()`: Adds a single element to the end of the list.

`extend()`: Adds elements from another iterable (e.g., list, tuple) to the end of the list.

3. How will you compare two lists?

-> Compare two lists using `==` to check if they are equal in both order and content. Use `!=` to check if they are different.

4. What is tuple? Difference between list and tuple.

-> A tuple is an immutable, ordered collection of items in Python.

Difference:

List: Mutable, allows modifications.

Tuple: Immutable, cannot be modified after creation

5. How will you create a dictionary using tuples in python?

-> Use a list of key-value tuples: `dict([('key1', 'value1'), ('key2', 'value2')])`.

6. How Do You Traverse Through A Dictionary Object In Python?

-> Use a for loop: `for key in dict` to iterate over keys, `for value in dict.values()` for values, or `for key, value in dict.items()` for key-value pairs.

7. How Do You Check The Presence Of A Key In A Dictionary?

-> Use the `in` keyword: `if key in dict`.

8. Why Do You Use the `Zip ()` Method in Python?

-> `zip()` pairs elements from multiple iterables (e.g., lists, tuples) together into tuples, creating an iterator of these tuples.

9. How Many Basic Types Of Functions Are Available In Python?

-> Two basic types:

Built-in functions (e.g., `print()`, `len()`).

User-defined functions created using the `def` keyword.