**Q1. What is List? How will you reverse a list?**

* A list is a built-in data type in Python used to store an ordered collection of items. It is mutable, meaning you can change its content by adding or removing elements.
* You can reverse a list using the ***reverse()*** method or by using ***slicing ([::-1]).***

**Q2. Differentiate between append () and extend () methods?**

* In Python, append() and extend() are methods used to add elements to a list.
* append() Method:

Purpose: Appends a single element at the end of the list

* **list.append(element)**
* extend() Method:

Purpose: Appends elements of an iterable (e.g., a list, tuple, or string) to the end of the list

* list.extend(iterable)

**Q18. What is tuple? Difference between list and tuple.**

* A tuple is a collection data type in Python, similar to a list, but it is immutable (cannot be changed after creation). Tuples are defined using parentheses ().
* Key differences between lists and tuples:
* Lists are mutable (can be modified), while tuples are immutable.
* Lists use square brackets [], and tuples use parentheses ().
* Lists have more built-in methods compared to tuples.
* Lists are generally used when the collection of elements might need to be modified, and tuples are used when the collection should remain constant.

**Q51. Why Do You Use the Zip () Method in Python?**

* The zip() method in Python is used to combine two or more iterables (e.g., lists, tuples) element-wise. It returns an iterator of tuples, where the i-th tuple contains the i-th element from each of the input iterables. It is commonly used for tasks like creating dictionaries, mapping values, and more.

**Q51. How Many Basic Types Of Functions Are Available In Python?**

* In Python, there are two basic types of functions:
* Built-in Functions: These functions are part of the Python standard library and are available for use without the need for additional imports. Examples include print(), len(), type(), etc.
* User-Defined Functions: These functions are created by the users to perform specific tasks. Users can define their functions using the def keyword.