Q1. Does assigning a value to a string's indexed character violate Python's string immutability?

Ans: We can not assign a value to a string’s index position. Object of string class does not support item assignment.

Q2. Does using the += operator to concatenate strings violate Python's string immutability? Why or why not?

Ans: The increment operator += does not violate immutability. After assignment the variable is newly created. It can be proved by printing the id() which will return different address to show that the first instance and second instance are different objects .

Q3. In Python, how many different ways are there to index a character?

Ans:

We can access characters in a String in Two ways :

1. Accessing Characters by Positive Index Number
2. Accessing Characters by Negative Index Number

Q4. What is the relationship between indexing and slicing?

Ans:

**Indexing:***Indexing* is used to obtain individual elements.

**Slicing:***Slicing* is used to obtain a sequence of elements.

Indexing and Slicing can be be done in Python Sequences types like **list, string, tuple, range** objects.

Q5. What is an indexed character's exact data type? What is the data form of a slicing-generated substring?

Ans:

Str

Q6. What is the relationship between string and character "types" in Python?

Ans:

A **string** is an object that contains a sequence of characters. A character is a string of length one. A single character is also a string in Python

Q7. Identify at least two operators and one method that allow you to combine one or more smaller strings to create a larger string.

Ans:

Operator- +, +=

Method- join, format

Q8. What is the benefit of first checking the target string with in or not in before using the index method to find a substring?

Ans:

In case if we use index directly then we need to handle the exception but if we first check the target string with in or not in then exception handling is not required.

Q9. Which operators and built-in string methods produce simple Boolean (true/false) results?

Ans:

Operator ==

Function **hasattr()**