**Theory:**

**• Understanding how to access and manipulate strings.**

**• Basic operations: concatenation, repetition, string methods (upper(), lower(), etc.).**

**• String slicing.**

**Basic Operations**

1. **Concatenation**:
   * Concatenation is combining two or more strings into a single string.
   * Example: "Hello" + " " + "World" results in "Hello World".
2. **Repetition**:
   * Repetition is repeating a string multiple times using the \* operator.
   * Example: "Hello" \* 3 results in "HelloHelloHello".
3. **String Methods**:
   * **upper()**: Converts all characters of the string to uppercase.
     + Example: "hello".upper() results in "HELLO".
   * **lower()**: Converts all characters of the string to lowercase.
     + Example: "HELLO".lower() results in "hello".
   * **strip()**: Removes leading and trailing spaces from the string.
     + Example: " hello ".strip() results in "hello".
   * **replace(old, new)**: Replaces occurrences of a substring with a new substring.
     + Example: "hello world".replace("world", "Python") results in "hello Python".

**String Slicing :**

* **Slicing** allows you to extract a substring from a string by specifying a range of indices.
  + **Syntax**: string[start:end]
  + The slice extracts characters starting from the start index and up to, but not including, the end index.
  + **Example**: "Hello"[1:4] results in "ell".
  + **Negative Indices**: You can use negative indices to slice from the end of the string.
    - Example: "Hello"[-3:] results in "llo", extracting the last three characters.