2. List Operations

Theory:

• Common list operations: concatenation, repetition, membership.

• Understanding list methods like append(), insert(), remove(), pop().

**Common List Operations**

1. **Concatenation**
   * Combines two or more lists into a single list using the + operator.
2. **Repetition**
   * Repeats the elements of a list multiple times using the \* operator.
3. **Membership**
   * Tests if an element exists within a list using the in or not in operators.
   * Returns a boolean value (True or False).

**List Methods**

1. **append()**
   * Adds a single element to the end of the list.
2. **insert()**
   * Inserts an element at a specific index in the list.
3. **remove()**
   * Removes the first occurrence of a specified element from the list.
4. **pop()**
   * If no index is provided, it removes the last element.