**Que 1 : Common list operations: concatenation, repetition, membership.**

1. **Concatenation** (+ operator)

Used to join two or more lists.

Example:

list1 = [1, 2, 3]

list2 = [4, 5, 6]

result = list1 + list2

print(result)

**Output:** [1, 2, 3, 4, 5, 6]

**2.** **Repetition** (\* operator)

Used to repeat the list multiple times.

list1 = ['A', 'B']

result = list1 \* 3

print(result)

**Output:** ['A', 'B', 'A', 'B', 'A', ‘B']

**3. Membership (in / not in)**

Used to **check if an item exists** in the list.

list1 = ['apple', 'banana', 'cherry']

print('banana' in list1) # True

print('mango' not in list1) # True

**Que 2 : Understanding list methods like append(), insert(), remove(), pop().**

**1. append()**

**Adds** an item at the **end** of the list.

Example :

fruits = ['apple', 'banana']

fruits.append('mango')

print(fruits)

**2. insert(index, item)**

**Inserts** an item at a **specific position**.

Example :

fruits = ['apple', 'banana']

fruits.insert(1, 'orange')

print(fruits)

**3. remove(item)**

**Removes** the **first matching item** from the list.

fruits = ['apple', 'banana', 'orange', 'banana']

fruits.remove('banana')

print(fruits)

**4. pop(index)**

**Removes** (and returns) the item at the **given index**.

If no index is given, it removes the **last item**.

Example :

fruits = ['apple', 'banana', 'cherry']

fruits.pop(1)

print(fruits)