Revision Class 2 (Dated: 09-Sep-2022)

Note: Apologies in advance, if some code may have some typing or other mistakes, due to lack of time (working on exams of your seniors), I couldn't run these codes (for verification). You may inform through your CR, for any correction required.

1. Given a list of numbers having -1 (sentinel value) to show empty elements or deleted elements. You have to remove -1 from list by moving elements to the left side, in order to create space logically at the right side of the list:

```
def remove_negative_one(x):
    count = 0
    for i in range(len(x)):
        if x[i]==-1:
            count = 1
            break
    if count == 1:
        for j in range(i+1, len(x)):
            if x[j] == -1:
                count += 1
            else:
                x[i] = x[j]
                i += 1
    return len(x)-count

def test_remove_negative_one():
    x=[-1, 23, 34, -1, 44, 87, 90, -1, -1, 98]
    new_length = remove_negative_one(x)
    #after removal of negative ones from the list, now list has logically less
elements
    #you may place new elements at new_length and increase the length
    for i in range(new_length):
        print (x[i], end=' ')
    print()

test_remove_negative_one()
```

2. Given two list of numbers, where elements in each list are unique; however, element may occur in other list. Write code to print common elements: [elements may occur at any place in the lists]

```
for e1 in list1:
      for e2 in list2:
            if e1 == e2:
                  print (e1, end=' ')
                  break  # because elements are unique in the list, therefore no need to continue
```

3. Given two list of numbers, where elements in each list are unique; however, element may occur in other list. Write code to print elements of list 1, which is not occurring in list 2.

```
for e1 in list1:
      is_not_exist = True
      for e2 in list2:
            if e1 == e2:
                  is_not_exist = False
                  break
      if is_not_exist:
            print (e1)
```

4. Given two list of numbers, where elements in each list are unique; however, element may occur in other list. Write code to print all elements of list 1 & list 2 (if list 1 & list 2 has common elements, write them once only).

```
for e in list2:
      print (e, end=' ')
for e1 in list1:
      is_not_exist = True
      for e2 in list2:
            if e1 == e2:
                  is_not_exist = False
                  break
      if is_not_exist:
            print (e1)
```

or you may write first elements of list 1 than elements of list 2, which are not existing in list 1

```
for e in list1:
      print (e, end=' ')
for e2 in list2:
      is_not_exist = True
      for e1 in list1:
            if e1 == e2:
                  is_not_exist = False
                  break
      if is_not_exist:
            print (e1)
```

5. Given two lists of same size. List 1 has numbers in any range; whereas, list 2 has only 0, 1. You have to print elements of list 1, where corresponding element in list 2 is 1.

```
for i in range(len(list1)):
      if list2[i] == 1:
            print (list1[i], end=' ')
```

6. Given two lists of same size. Both lists have numbers, where numbers in list 2 is indicating count of corresponding number in list 1. For example, say list 1 has '43' at index '0', where list 2 has '3' at index '0'. This means, '43' has '3' entries. Where some element may have '0' entry as well. Your task is to sum elements of list 1, according to their frequency in list 2:

```
sum = 0
for i in range(len(list1)):
      for j in range(list2[i]):
            sum += list1[i]
print (sum)
-------------------------
```

However, the purpose of this question is just to familiarize yourself with different possible wordings of statements, which may confuse you; however, with practice you can minimize this. For this purpose, you have to read and attempt different variety of problems from different books, websites etc.

Now, this question was quite simple, you can simply multiply corresponding elements of both lists, see the code:

```
sum = 0
for i in range(len(list1)):
      sum += list1[i] * list2[i]
print (sum)
```