Started on	Sunday, 19 May 2024, 12:01 AM
State	Finished
Completed on	Monday, 27 May 2024, 12:16 PM
Time taken	8 days 12 hours
Marks	5.00/5.00
Grade	**50.00** out of 50.00 (**100**%)
Name	AKSAYAA S V 2022-CSD-A

Question **1**

Correct

Mark 1.00 out of 1.00

Check if a set is a subset of another set.

Example:

Sample Input1:

mango apple

mango orange

mango

output1:

yes

set3 is subset of set1 and set2

```
input2:
```

```
mango orange
```

```
banana orange
```

```
grapes
```

```
output2:
```

no

Answer: (penalty regime: 0 %)

```
def is_subset(set1, set2, set3):
    return set3.issubset(set1) and set

# Take input from the user
input1 = set(input().split())
input2 = set(input().split())
input3 = set(input().split())

if is_subset(input1, input2, input3):
    print("yes")
    print("set3 is subset of set1 and
else:
    print("No")

```

	Test	Input	Expected	Got	
✔	1	mango apple mango orange mango	yes set3 is subset of set1 and set2	yes set3 is subset of set1 and set2	✔
✔	2	mango orange banana orange grapes	No	No	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Mr.Harish is maintaining a phone directory which stores phone numbers. He will update the directory with phone numbers every week. While entering the input the number should not be stored inside if the phone number already exists. Finally he want his phone number to be printed in ascending order

Input: n – A1 array size and m – A2 arraysize

Array A1 containing phone numbers already existing and Array A2 containing numbers to be inserted

Ouput : Phone numbers printed in ascending order

Sample Test Case

Input

5

6

9840403212 9890909012 98123455 90123456 99123456

90909090 99999999 9840403212 12345678 12347890 99123456

Output

12345678 12347890 90123456 90909090 98123455 99123456 99999999 9840403212 9890909012

Answer: (penalty regime: 0 %)

```
def update_phone_directory(existing_nu
    phone_directory = set(existing_num

    for number in new_numbers:
        if number not in phone_directo
            phone_directory.add(number

    sorted_numbers = sorted(map(int, p
    for number in sorted_numbers:
        print(number, end=" ")

n = int(input())
m = int(input())

existing_numbers = input().split()[:n]
new_numbers = input().split()[:m]

# Call the function to update and prin
update_phone_directory(existing_number


```

	Input	Expected	Got	
✔	3 3 9876543211 1122334455 6677889911 6677889911 9876543211 4455667788	1122334455 4455667788 6677889911 9876543211	1122334455 4455667788 6677889911 9876543211	✔
✔	5 6 9840403212 9890909012 98123455 90123456 99123456 90909090 99999999 9840403212 12345678 12347890 99123456	12345678 12347890 90123456 90909090 98123455 99123456 99999999 9840403212 9890909012	12345678 12347890 90123456 90909090 98123455 99123456 99999999 9840403212 9890909012	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Two strings, *a* and *b*, are called anagrams if they contain all the same characters in the same frequencies. For example, the anagrams of CAT are CAT, ACT, TAC, TCA, ATC, and CTA.

Complete the function in the editor. If *a* and *b* are case-insensitive anagrams, print "Anagrams"; otherwise, print "Not Anagrams" instead.

Input Format

The first line contains a string denoting *a*.
The second line contains a string denoting *b*.

Constraints

- *1 ≤ length(a), length(b) ≤ 50*
- Strings *a* and *b* consist of English alphabetic characters.
- The comparison should NOT be case sensitive.

Output Format

Print "Anagrams" if *a* and *b* are case-insensitive anagrams of each other; otherwise, print "Not Anagrams" instead.

Sample Input 0

anagram

margana

Sample Output 0

Anagrams

Explanation 0

Character	**Frequency:** anagram	**Frequency:** margana
A or a	3	3
G or g	1	1
N or n	1	1
M or m	1	1
R or r	1	1

The two strings contain all the same letters in the same frequencies, so we print "Anagrams".

Answer: (penalty regime: 0 %)

```
def is_anagram(a, b):
    a = a.lower()
    b = b.lower()
    return sorted(a) == sorted(b)

a = input().strip()
b = input().strip()

if is_anagram(a, b):
    print("Anagrams")
else:
    print("Not Anagrams")

```

	Input	Expected	Got	
✔	madam maDaM	Anagrams	Anagrams	✔
✔	DAD DAD	Anagrams	Anagrams	✔
✔	MAN MAM	Not Anagrams	Not Anagrams	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

A number is stable if each digit occur the same number of times.i.e, the frequency of each digit in the number is the same. For e.g. 2277,4004,11,23,583835,1010 are examples for stable numbers.
Similarly, a number is unstable if the frequency of each digit in the number is NOT same.

Sample Input:

2277

Sample Output:

Stable Number

Sample Input 2:

121

Sample Output 2:

Unstable Number

Answer: (penalty regime: 0 %)

```
def is_stable(number):
    digit_count = {}
    for digit in number:
        digit_count[digit] = digit_cou
    frequencies = list(digit_count.val
    return len(set(frequencies)) == 1

number = input().strip()

if is_stable(number):
    print("Stable Number")
else:
    print("Unstable Number")

```

	Input	Expected	Got	
✔	9988	Stable Number	Stable Number	✔
✔	12	Stable Number	Stable Number	✔
✔	455	Unstable Number	Unstable Number	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Given a sorted linked list, delete all duplicates such that each element appear only *once*.

Example 1:

```
Input:
1 1 2
Output:
1 2
```

Example 2:

```
Input:
1 1 2 3 3
Output:
1 2 3
```

Answer: (penalty regime: 0 %)

```
class ListNode:
    def __init__(self, val=0, next=
        self.val = val
        self.next = next

def delete_duplicates(head):
    current = head
    while current and current.next:
        if current.val == current.n
            current.next = current.
        else:
            current = current.next
    return head

def print_linked_list(head):
    current = head
    while current:
        print(current.val, end=" ")
        current = current.next
    print()
```

	Test	Input	Expected	Got	
✔	1	1 1 2	1 2	1 2	✔
✔	2	1 1 2 3 3	1 2 3	1 2 3	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ Week-09_MCQ

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