**SET A**

**Q1.** Write a Python program that takes one number as input from the user, this number indicates the number of string/strings to be taken as input. Then you have to find the character with the highest number of occurrences combining all the strings taken as input. If the count of the highest number of occurrences is even and the character is a vowel, print the combined string in a reverse way. On the other hand, if the number highest number of occurrences is odd or the character is not a vowel, print the character at the last odd index of the combined string in upper case.

**N.B.: If two or more characters have the same maximum number of occurrences. Select the first character with the maximum number of occurrences from the combined string.**

**\*\*You can’t use the built-in reverse() function or list\*\***

**Sample Input 1:  
3**

**dog**

**cat**

**lion**

**Sample Output 1:   
noiltacgod**

**Explanation**: The character “o” has the highest number of occurrences in the combined string “dogcatlion”. As the count of “o” in the combined string is 2 which is even and “o” itself is a vowel, the combined string has been printed in the reverse way “noiltacgod”.

**Sample Input 1:  
2**

**lotto**

**hello**

**Sample Output 1:   
lottohellO**

**Explanation**: In the combined string “lottohello”, both “l” and “o” comes with the maximum frequency. But as “l” comes before “o” in the combined string, so character “l” is taken into consideration. As “l” is not a vowel or “l” comes 3 times in the combined string which is an odd number. So the character “o” at the last odd index (index is 9) in the combined string is converted to upper case.

**Sample Input 1:  
2**

**tiger**

**deer**

**Sample Output 1:   
tigerdeEr**

**Explanation**: In the combined string “tigerdeer”, character “e” has the highest number of occurrences. Though “e” is a vowel but the count of “e” in the combined string is odd. So the character at the last index (which is 7) in the combined string is printed in upper case.

**SET A**

**Q2:**

x = 7

y = 0

sum = 5

p = 0.0

while (x < 10):

    y = x // 2

    while (y < x):

        p = (x + 10.0) / 2

        sum = (sum % 2) + x - y \* 2 + int(p) + int(p\*3)

        print(sum)

        y = y + 2

    if x==9:

        sum=sum-100

        sum = (sum % 2) + x - y \*\* 2 + int(p) + int(p\*3)

        print(sum)

        x+=1

    elif (x > 6):

        x += 1

    else:

        x += 4

Output:

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**SET B**

**Q1.** Write a Python program that takes o**ne number as input** from the user, this number indicates the number of string/strings to be taken as input. Then you have to find the **character with the highest number of occurrences combining all the strings** taken as input. \*\*(If you find **more than 1 characters** which shares the highest number of occurrences in this case consider the **first character** to be the target character.)\*\* Then check if the occurrence of that particular character is **even or odd**. If **odd** then you should print the **combining string from the first step as an output where all the occurrence of that common character is gone**. If the value is even then the output shall be the combined string in **reverse order and all the occurrence of that common character is gone.**

**\*\*You can’t use the built-in reverse() function or list\*\***

| **sample input** | **sample output** |
| --- | --- |
| **3**  **dog**  **cat**  **lion** | **o occurred 2 times**  **niltacgd** |
| **2**  **tiger**  **deer** | **e occurred 3 times**  **tigrdr** |

**Explanation**: The character “o” has the highest number of occurrences in the combined string “dogcatlion”.

**Explanation**: In the combined string “tigerdeer”, character “e” has the highest number of occurrences.

**Q2:**

x = 7

y = 0

sum = 13

p = 0.0

while (x < 10):

y = x // 2

while (y < x):

p = (x + 10.0) / 2

sum = (sum % 5) + x - y \* 2 + int(p) + int(p\*3)

print(sum,end="-->")

y = y + 2

if x==9:

sum=sum-100

sum = (sum % 5) + x - y \*\* 2 + int(p) + int(p\*3)

print(sum,end="-->")

x+=1

elif (x > 6):

x += 1

else:

x += 4

print(x)

Output:

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