DS Assignment 2 Report

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Q-1:

Step-1:
-Take the input of number of students(N), size of the list (s1)and make entry in array of students in A who has given the blood
Step-2
Initialize an empty list q and variable i=0,k=0 ,b list will be used to count the number repeated values in a list using k indexing
Prior running the while loop we will append the ‘q’ with the first donner entry
-while loop will run till ‘i’ counter variable value is less than the size of the List s1
Inside while loop we have applied IF condition, ‘IF” count the element inside the q list is one, than we print the value at kth position ,we also increment the ‘i’ value and check one more if condition inside the loop and append the q list with next element in the list.
Step-3:
If the condition fails, then we will check the ‘elif’ and increment the ‘K’ value by 1.
Inside this loop we will check if the length of q is equal to K or not. If both are equal then we will print the ‘0’. This condition is applied because there are some cases where the previous element count in the q list is not equal to 1. Therefore in that case we have to print ‘0’.
If len of q is the same as k then we increment i and append the value of a[i] in q.

Steps to run the code:Use Jupter Notebook
Just run the cell of the Jupyter notebook and make the input entry as the question asked for.

We will have required output

END

Q-2:

Step-1
-Initialize s1,s2,s3 and O
-Take the number of element input(N)
-Take the input of the elements inside s1
-Take the input of the order stack O
Step-2:

- Use for loop to run till the number of element N
- Use if else condition, in If condition,we compare the last element of s1 with the element of order(O), if found true then append the s1 value into s2 using pop operation.
- Else append the value s1 into s3 using pop operation.

Step-3:
One for loop will run again to the length of s3.
Inside this loop we append the value of s3 into s2 using pop operation.
Step-4:
Now, we will compare the O and s3, If found same than print the ‘Yes’ else print ‘NO’

Steps to run the code:Use Jupter Notebook
Just run the cell of the Jupyter notebook and make the input entry as the question asked for.
We will have required output

END

Q-3:

Step-1-

-Initialize s1,s2,O and delay stack/list/array for the process

-Take the input for the size of stack(N)

-take the input of the elements for the stack.(s1)

-take the input of the order of elements(O)

-define count=0

Step-2:

-apply the For loop till the number of elements(N)

Inside for loop, apply IF else condition

compare the last element of S1 with the first element of order stack with the help of count function.

If condition found true append the last element of s1 into stack s2 using pop function and increase count value by one.

Else

append the element in 'delay' using pop function.

Step-3

Now one more loop will run till the length of delay And append the value of delay to stack s2 using indexing as the order it append in the else condition.

Step 4:

Here we will compare the s2 and O stack. If found the sequence same then print 'Yes' else it print 'No'

Steps to run the code:Use Jupter Notebook

Just run the cell of the Jupyter notebook and make the input entry as the question asked for.

We will have required output

END

Q-4

Step-1
-Take the size of the array
-take the input of the element
- Initialize i=0 and j=i+1, j will be one position extra to compare the present element with the right most element

Step-2
-while loop will run till i is less than a number of elements.
And inside we will also check if the k is less than total size or not.
If k is less than the total size then we will check the condition if A[j] is greater than a[i] than print a[j] element and increment both i and k otherwise increase the right side count of k so that next value can be compared with value at ith position.

Step-3
If k value is greater than or equal to the total size than we will print -1 and increment i and k. This condition is used because there are some cases where no element on the right side is greater than the present position element.

Steps to run the code:Use Jupter Notebook
Just run the cell of the Jupyter notebook and make the input entry as the question asked for.
We will have required output

END