StringHandlingFunction

Ex.No.: **Date:**

AliceandStrings

ProblemStatement:

Two stringsAand B comprising of lower-caseEnglish lettersare compatible if they are equal or can be made equal by following this step any number of times:

- Select a prefix from the string A (possibly empty), and increase the alphabetical valueofallthecharactersintheprefixbythesamevalidamount.Forexample,if the string is xyz and we select the prefix xy then we can convert it to yx by increasing the alphabetical value by 1. But if we select the prefix xyz then we cannot increase the alphabetical value.

YourtaskistodetermineifgivenstringsAandBarecompatible.

Inputformat
Firstline:StringA
Nextline:StringB

Outputformat
Foreachtestcase,printYESifstringAcanbeconvertedtostringB,otherwiseprint NO.

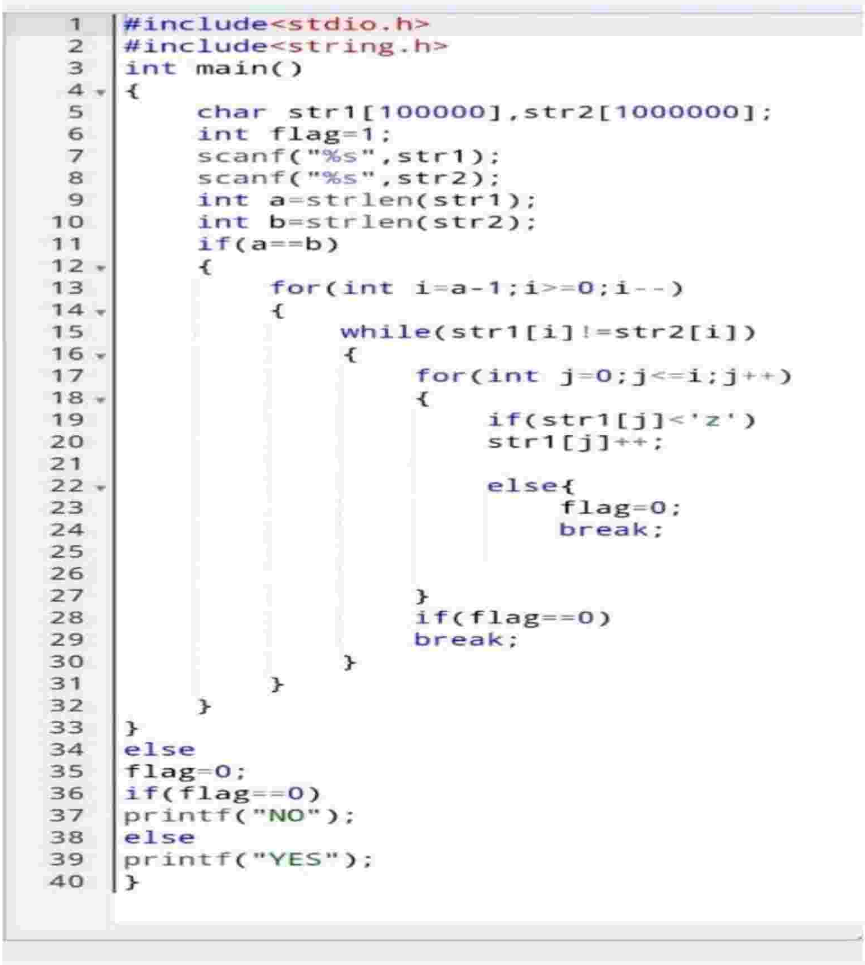
Constraints
1≤len(A)≤1000000
1≤len(B)≤1000000

Sample Input
abaca
cdbda

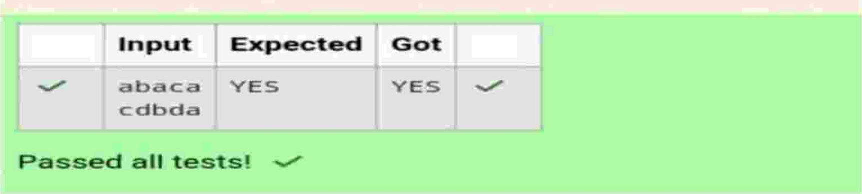
SampleOutput
YES

Explanation
Thestringabacacanbeconvertedtobcbdainonemoveandtocdbdainthenextmove.

Program:



```c
#include<stdio.h>
#include<string.h>
int main()
{
    char str1[100000],str2[1000000];
    int flag=1;
    scanf("%s",str1);
    scanf("%s",str2);
    int a=strlen(str1);
    int b=strlen(str2);
    if(a==b)
    {
        for(int i=a-1;i>=0;i--)
        {
            while(str1[i]!=str2[i])
            {
                for(int j=0;j<=i;j++)
                {
                    if(str1[j]<'z')
                    str1[j]++;

                    else{
                        flag=0;
                        break;


                }
                if(flag==0)
                break;
            }
        }
    }
}
else
flag=0;
if(flag==0)
printf("NO");
else
printf("YES");
}
```



	Input	Expected	Got	
✓	abaca cdbda	YES	YES	✓

Passed all tests! ✓

Ex.No.: **Date:**

Pizza Confusion

ProblemStatement:

Joey loves to eat Pizza. But he is worried as the quality of pizza made by most of the restaurantsisdeteriorating.Thelastfewpizzasorderedbyhimdidnottastegood:(.Joey is feeling extremely hungry and wants to eat pizza. But he is confused about the restaurantfrom wherehe should order. As always he asks Chandler for help.

Chandler suggests that Joey should give each restaurant some points, and then choose the restaurant having maximum points. If more than one restaurant has same points, Joey can choose the one with lexicographically smallest name.

Joeyhasassignedpointstoalltherestaurants,butcan'tfigureoutwhichrestaurantsatisfies Chandler's criteria. Can you help him out?

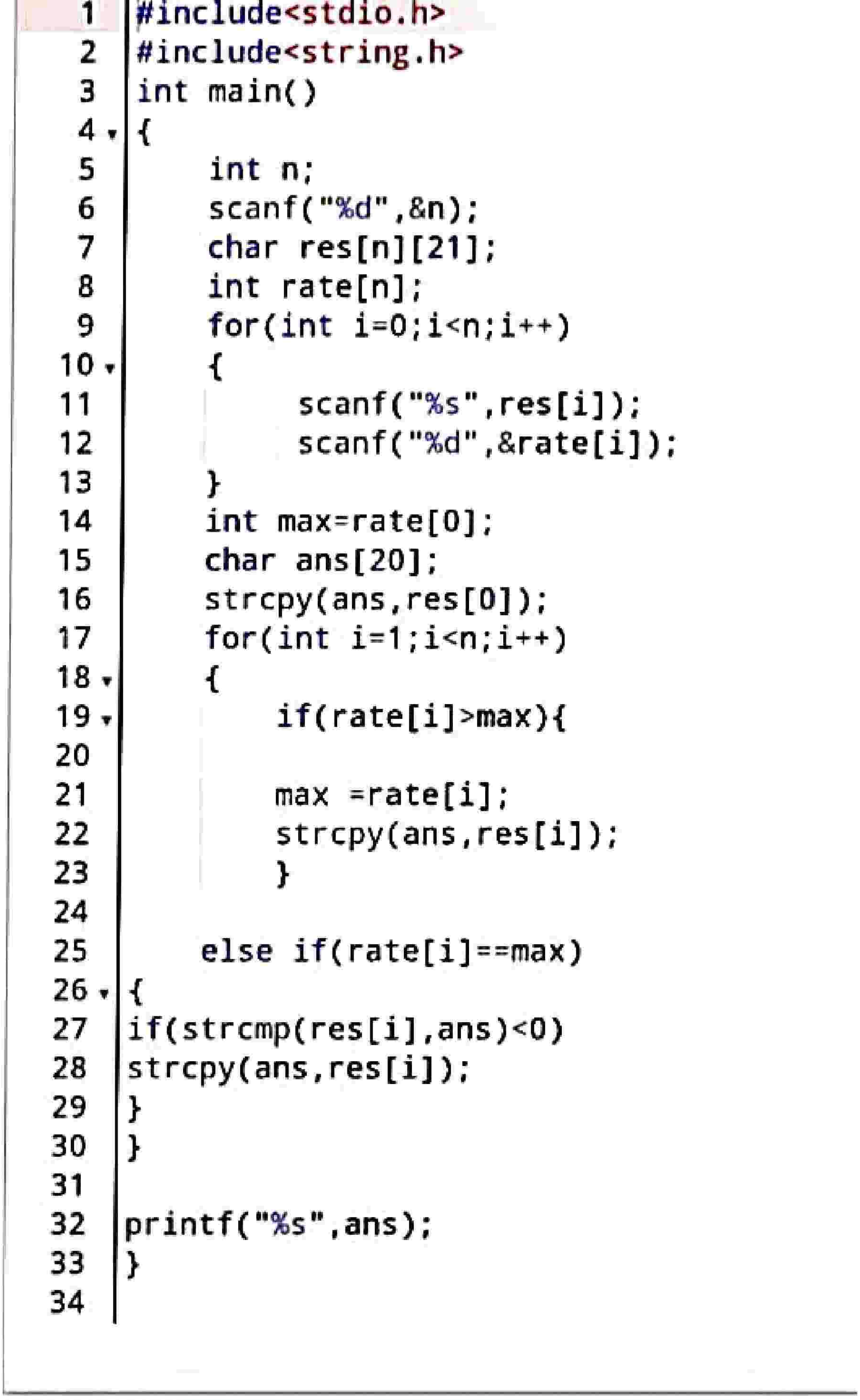
InputFormat:
FirstlinehasN,thetotalnumberofrestaurants.
NextNlinescontainNameofRestaurantandPointsawardedbyJoey,separatedbya space.
Restaurantnamehasnospaces,alllowercaselettersandwillnotbemorethan20 characters.

OutputFormat:
PrintthenameoftherestaurantthatJoeyshouldchoose.

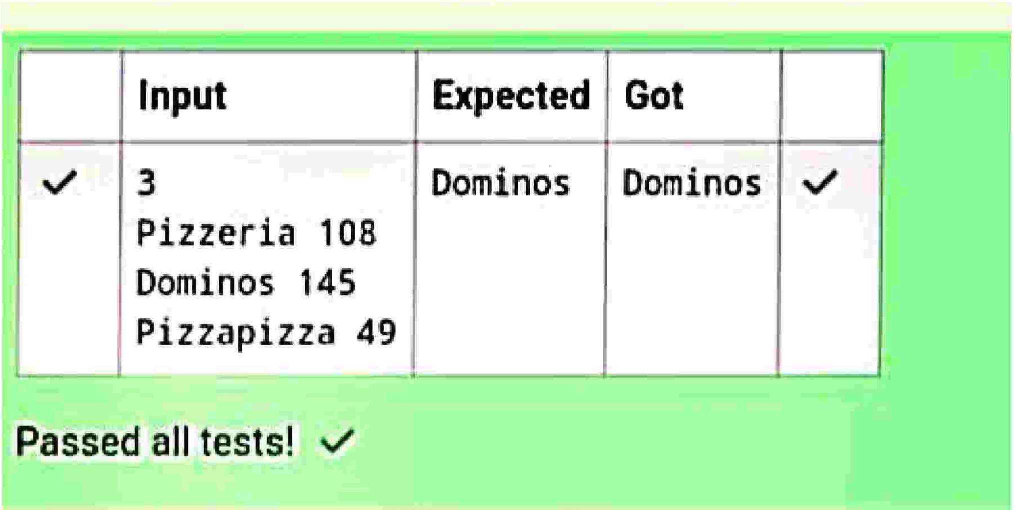
Constraints:
1<=N<=105
1<=Points<=106

SampleInput
3
Pizzeria108
Dominos145
Pizzapizza49

Sample Output
Dominos



```c
#include<stdio.h>
#include<string.h>
int main()
{
    int n;
    scanf("%d",&n);
    char res[n][21];
    int rate[n];
    for(int i=0;i<n;i++)
    {
        scanf("%s",res[i]);
        scanf("%d",&rate[i]);
    }
    int max=rate[0];
    char ans[20];
    strcpy(ans,res[0]);
    for(int i=1;i<n;i++)
    {
        if(rate[i]>max){

        max =rate[i];
        strcpy(ans,res[i]);
        }

    else if(rate[i]==max)
{
if(strcmp(res[i],ans)<0)
strcpy(ans,res[i]);
}
}

printf("%s",ans);
}

```



	Input	Expected	Got	
✓	3 Pizzeria 108 Dominos 145 Pizzapizza 49	Dominos	Dominos	✓

Passed all tests! ✓

Ex.No.: **Date:**

Password

ProblemStatement:

Dannyhasapossiblelistofpasswordsof Manny'sfacebookaccount.Allpasswordslength is odd. But Danny knows that Manny is a big fan of palindromes. So, his password and reverse of his password both should be in the list.

You have to print the length of Manny's password and it's middle character.

Note: The solution will be unique.

InputFormat
ThefirstlineofinputcontainstheintegerN,thenumberofpossiblepasswords.
Each of the following N lines contains a single word, its length being an odd number greater than 2 and lesser than 14. All characters are lowercase letters of the English alphabet.

OutputFormat
The first and only line of output must contain the length of the correct password and its central letter.

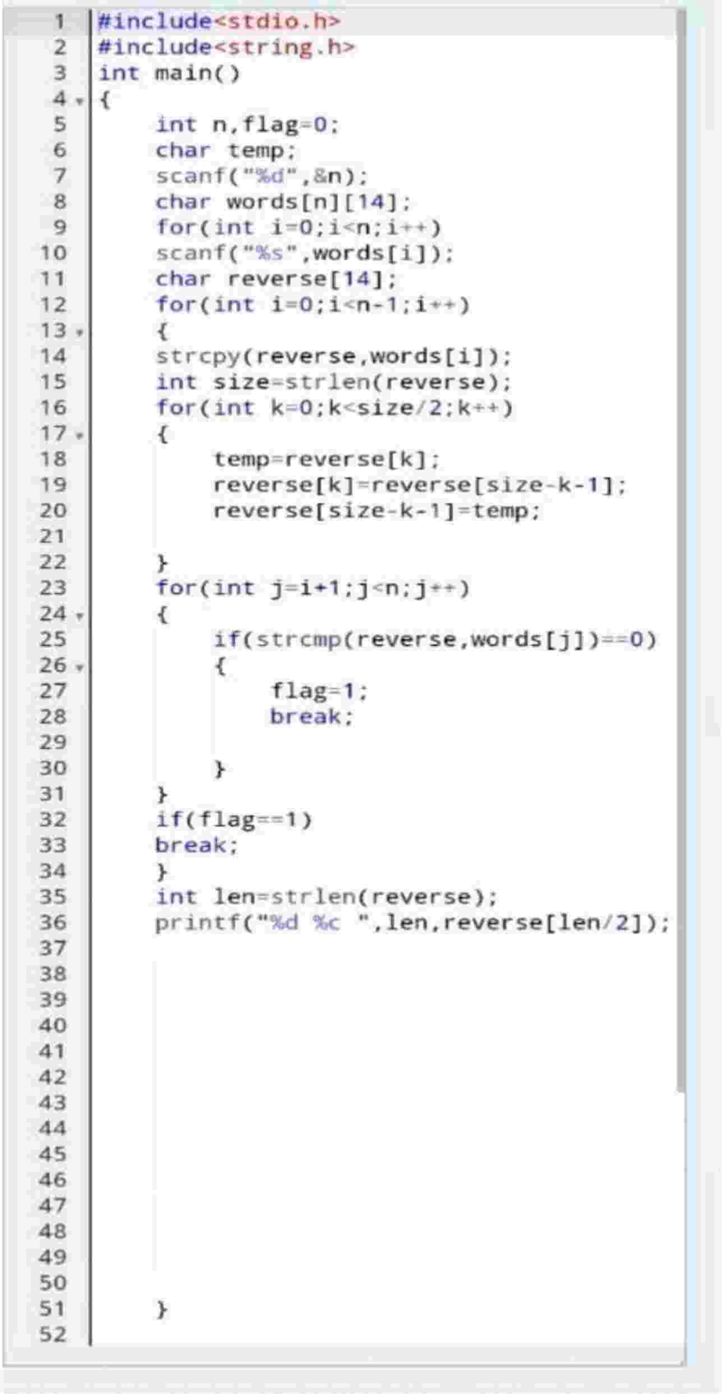
Constraints
1≤N≤100

SampleInput

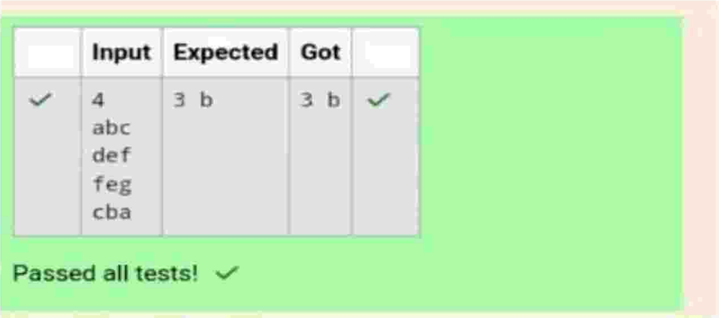
```
4
abc
def
feg
cba
```

SampleOutput

```
3 b
```



```c
#include<stdio.h>
#include<string.h>
int main()
{
    int n,flag=0;
    char temp;
    scanf("%d",&n);
    char words[n][14];
    for(int i=0;i<n;i++)
    scanf("%s",words[i]);
    char reverse[14];
    for(int i=0;i<n-1;i++)
    {
    strcpy(reverse,words[i]);
    int size=strlen(reverse);
    for(int k=0;k<size/2;k++)
    {
        temp=reverse[k];
        reverse[k]=reverse[size-k-1];
        reverse[size-k-1]=temp;

    }
    for(int j=i+1;j<n;j++)
    {
        if(strcmp(reverse,words[j])==0)
        {
            flag=1;
            break;

        }
    }
    if(flag==1)
    break;
    }
    int len=strlen(reverse);
    printf("%d %c ",len,reverse[len/2]);















    }

```



	Input	Expected	Got	
✓	4 abc def feg cba	3 b	3 b	✓

Passed all tests! ✓

Program: