Attempt 2

Status	Finished
Started	Monday, 30 December 2024, 12:19 PM
Completed	Monday, 30 December 2024, 2:19 PM
Duration	2 hours

Two strings *A* and *B* comprising of lower case English letters are 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 value of all the characters in the prefix by the same valid amount. For example, 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.

Your task is to determine if given strings *A* and *B* are compatible.

```c
#include<stdio.h>
#include<string.h>
int main() {
    char str1[1000000] , str2[1000000];
    int flag = 1;
    scanf("%s %s" , str1 , str2);
    int a = strlen(str1) , 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	✓

Danny has a possible list of passwords of Manny's facebook account. All passwords length 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.

```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)
        break;
    }
    int len = strlen(reverse);
    printf("%d %c" , len , reverse[len/2]);
    return 0;
}
```

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

Joey loves to eat Pizza. But he is worried as the quality of pizza made by most of the restaurants is deteriorating. The last few pizzas ordered by him did not taste good :(.
Joey is feeling extremely hungry and wants to eat pizza. But he is confused about the restaurant from where he 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.

Joey has assigned points to all the restaurants, but can't figure out which restaurant satisfies Chandler's criteria. Can you help him out?

```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	✓

These days Bechan Chacha is depressed because his crush gave him list of mobile number some of them are valid and some of them are invalid. Bechan Chacha has special power that he can pick his crush number only if he has valid set of mobile numbers. Help him to determine the valid numbers.

You are given a string "S" and you have to determine whether it is Valid mobile number or not. Mobile number is valid only if it is of length 10 , consists of numeric values and it shouldn't have prefix zeroes.

```c
#include<stdio.h>
#include<string.h>
int main() {
    int n;
    scanf("%d" , &n);
    while(n--) {
        int flag = 1;
        char s[100000];
        scanf("%s" , s);
        int k = strlen(s);

        if(k == 10) {
            for(int i = 0; i < 10 ; i++) {
                if(s[0] == '0') {
                    flag = 0;
                    break;
                }
                if(s[i] < '0' || s[i] > '9') {
                    flag = 0;
                    break;
                }
            }
        }
        else
        flag = 0;
        if(flag == 1) {
            printf("YES\n");
        } else {
            printf("NO\n");
        }
    }
}
```

	Input	Expected	Got	
✓	3 1234567890 0123456789 0123456.87	YES NO NO	YES NO NO	✓