WEEK 11

Question **1**

Correct

Marked out of 1.00

Flag question

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 a[10000];
    scanf("%s",a);
    char b[10000];
    scanf("%s",b);
    int c=strlen(a);
    int d=strlen(b);
    int valid=1;
    if(c==d){
        for(int i=0;i<c;i++){
            if(a[i]>b[i]){
                valid=0;
                break;
            }
        }
    }else{
        valid=0;
    }
    if(valid==1){
        printf("YES");
    }else{
        printf("NO");
    }
}
```

	Input	Expected	Got	
✓	abaca cdbda	YES	YES	✓

Question **2**

Correct

Marked out of 1.00

Flag question

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>
void rev(char str[]){
  int n=strlen(str);
  int first=0;
  int last =n-1;
  while(first<last){
      char temp=str[first];
      str[first]=str[last];
      str[last]=temp;
      first++;
      last--;
  }
}
int main(){
    int t;
    scanf("%d",&t);
    char c[t][100];
    for(int i=0;i<t;i++){
        scanf("%s",c[i]);
    }

    for(int i=0;i<t-1;i++){
        char temp[100];
        strcpy(temp,c[i]);
        rev(temp);
        for(int j=i+1;j<t;j++){
        if(strcmp(temp,c[j])==0){
                int k=strlen(c[j]);
                printf("%d %c",k,c[j][k/2]);
                break;
        }
    }
}
}
```

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

Passed all tests! ✓

Question **3**

Correct

Marked out of 1.00

Flag question

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 t;
    scanf("%d",&t);
    struct pizza{
        char name[1000];
        int price;
    }s[t];
    for(int i=0;i<t;i++){
        scanf("%s %d",s[i].name,&s[i].price);
    }
    int max=s[0].price;
    int no;
    for(int i=0;i<t-1;i++){
        for(int j=i+1;j<t;j++){
            if(max<s[j].price){
                max=s[j].price;
                no=j;
            }
        }
    }
    printf("%s",s[no].name);
}
```

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