RITTVIK S 2024-CSE 2116240701616

Week-11-String Handling Functions

Coding

Question **1**
Correct
Marked out of 1.00

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:

Source code

Answer: (penalty regime: 0 %)

```
#include <stdio.h>
#include <string.h>

int main()
{
    char str1[1000000],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;
                    }
                }
            }
        }
    }
        else
        flag =0;

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

Output

	Input	Expected	Got	
✓	abaca cdbda	YES	YES	✓

Passed all tests! ✓

Result

The above program is executed successfully and provides the above output.

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.

Source code

```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;
        }
```

```
26
27          for (int j=i+1;j<n;j++)
28          {
29              if (strcmp(reverse,words[j])==0)
30              {
31                  flag = 1;
32                  break;
33              }
34          }
35
36          if (flag==1)
37          break;
38
39          }
40
41      int len = strlen(reverse);
42      printf("%d %c", len, reverse[len/2]);
43      return 0;
44  }
```

Output

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

Passed all tests! ✓

Result

The above program is executed successfully and provides the above output.

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?

Source code

```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);
    return 0;
}
```

Output

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

Passed all tests! ✓

Result

The above program is executed successfully and provides the above output.

Question **4**

Correct

Marked out of 1.00

Flag question

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.

Source code

```c
#include <stdio.h>
#include <string.h>
int main()
{
    int t;
    scanf("%d", &t);
    while(t--)
    {
        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");
    }
    return 0;
    }
```

Output

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

Passed all tests! ✓

Result

The above program is executed successfully and provides the above output.