

Q1) Remove duplicate chars from string using user defined function

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

char* removeDupCharArr(char *str)
{
    int len = strlen(str);
    for (int i = 0; i < len; i++)
    {
        int j = i + 1;
        while (j < len)
        {
            if (str[j] == str[i])
            {
                for (int k = j; k < len; k++)
                {
                    str[k] = str[k + 1];
                }
                len--;
            }
            else
            {
                j++;
            }
        }
        str[len] = '\0';
    }
    return str;
}

int main()
{
    char str[50];
    printf("enter string\n");
    scanf("%s", str);

    printf("---Before---\n");
    printf("%s\n", str);
    printf("---After---\n");
    printf("%s\n", removeDupCharArr(str));
    return 0;
}
```

```
enter string
abcaabbtuukktr
---Before---
abcaabbtuukktr
---After---
abctukr
```

Q2) Discount based on age for 5 person.

```
#include<stdio.h>

typedef struct People{
    int age;
    double ticketAmount;
    double discount;
} People;

int main(){
    People p[5];
    for (int i = 0; i < 5; i++)
    {
        printf("Enter the age of person %d --> ", i+1);
        scanf("%d", &p[i].age);
        printf("Enter ticket amount of person %d --> ", i+1);
        scanf("%lf", &p[i].ticketAmount);

        if(p[i].age<12) p[i].discount = 30;
        else if(p[i].age>59) p[i].discount = 50;
        else p[i].discount = 0;
    }

    for (int i = 0; i < 5; i++)
    {
        printf("Person %d needs to pay %.2lf rs\n", i+1, p[i].ticketAmount
- (p[i].ticketAmount * p[i].discount)/100);
    }

    return 0;
}
```

```
Enter the age of person 1 --> 10
Enter ticket amount of person 1 --> 100
Enter the age of person 2 --> 35
Enter ticket amount of person 2 --> 100
Enter the age of person 3 --> 59
Enter ticket amount of person 3 --> 100
Enter the age of person 4 --> 65
Enter ticket amount of person 4 --> 100
Enter the age of person 5 --> 10
Enter ticket amount of person 5 --> 200
Person 1 needs to pay 70.00 rs
Person 2 needs to pay 100.00 rs
Person 3 needs to pay 100.00 rs
Person 4 needs to pay 50.00 rs
Person 5 needs to pay 140.00 rs
```