

Structure using pointer

11. Write a Program in C display structure using pointer method

```
#include<stdio.h>
#include<conio.h>
struct student
{
    int roll;
    char name[10];
};

void main()
{
    struct student stu={101,"shafiq"};
    struct student *pt;
    clrscr();
    pt=&stu;
    printf("\n Roll Number %d %s",pt->roll,pt->name);
    getch();
}
```

Structure with pointer passes in function

12. Write a Program in C display structure pass in function pointer

```
struct student
{
    int roll;
    char name[10];
};
void display(struct student *st);
void main()
{
    struct student stu={101,"shafiq"};
    struct student *ptr;
    clrscr();
    ptr=&stu;
    display(ptr);
    getch();
}
```



```
void display(struct student *st)
{
    printf("\n Roll Number %d %s",st->roll,st->name);
}
```

13. **Write a program in C implement the following properties Creation list, Display list, Sorting list and Searching record in list using structure.**

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<string.h>
void create();
void display();
void sorting();
void searching();
struct student
{
    int roll;
    char name[15];
};
struct student stu[20];
int l;
void main()
{
    int n;
    while(1)
    {
        clrscr();
        printf("\n 1. CREATE ");
        printf("\n 2. DISPLAY ");
        printf("\n 3. SORTING ");
        printf("\n 4. SEARCHING ");
        printf("\n 0. EXIT ");
        scanf("%d",&n);
        switch(n)
        {
            case 1:
                create();
                break;
            case 2:
```





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```
        display();
        break;
    case 3:
        sorting();
        break;
    case 4:
        searching();
        getch();
        break;
    case 0:
        exit(1);
    }
}
}
void create()
{
    char n[15],ans='y';
    int r;
    l=0;
    do
    while(ans=='y')
    {

        printf("\n Enter roll No. ");
        scanf("%d",&r);
        printf("\n Enter name ");
        scanf("%s",n);
        stu[l].roll=r;
        strcpy(stu[l].name,n);
        fflush(stdin);
        l++;
        printf("\n Enter any more entry (y/n) ");
        ans=getchar();
    } while(ans=='y');
}
void display()
{
    int i=0;
    for(i=0;i<l;i++)
        printf("\n %d\t%s",stu[i].roll,stu[i].name);
    getch();
}
void sorting()
```



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```
{
    struct student temp;
    int n,i,j;
    printf("\n 1. FOR ROLL NUMBER ");
    printf("\n 2. FOR NAME WISE ");
    printf("\n Enter your option ");
    scanf("%d",&n);
    if(n==1)
    {
        for(i=0;i<l;i++)
        for(j=i+1;j<l;j++)
        if(stu[i].roll>stu[j].roll)
        {
            temp=stu[i];
            stu[i]=stu[j];
            stu[j]=temp;
        }
    }
    if(n==2)
    {
        for(i=0;i<l;i++)
        for(j=i+1;j<l;j++)
        if(strcmp(stu[i].name,stu[j].name)>0)
        {
            temp=stu[i];
            stu[i]=stu[j];
            stu[j]=temp;
        }
    }
}

void searching()
{
    char str[15];
    int n,r,flag,i;

    printf("\n 1. FOR ROLL NUMBER ");
    printf("\n 2. FOR NAME ");
    printf("\n Enter your choice ");
    scanf("%d",&n);
    if(n==1)
    {
        printf("\n Enter Roll number to searched ");
        scanf("%d",&r);
```



```
flag=0;
for(i=0;i<l;i++)
{
    if(stu[i].roll==r)
    {
        printf("\n %d %s",stu[i].roll,stu[i].name);
        flag=1;
        break;
    }
}
if(flag==0)
    printf("\n Roll number is not found");
}
else
if(n==2)
{
    printf("\n Enter Name to searched ");
    scanf("%s",&str);
    flag=0;
    for(i=0;i<l;i++)
    {
        if(strcmp(stu[i].name,str)==0)
        {
            printf("\n %d %s",stu[i].roll,stu[i].name);
            flag=1;
            break;
        }
    }
    if(flag==0)
        printf("\n Name is not found");
}
else
    printf("\n Again try ");
}
```





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14. Create the database of student in C having the following attributes: Roll_no, Stud_name, Stud_address, Stud_city, Stud_PINCode, Stud_sem, Rank and Branch. Also write a program in C to enter the data for 500 students in any order and display the list of student for a given branch and semester on display.
15. Write a program in C that accept roll number and names of student's of a class of one hundred student along with the marks obtained by them in Physics, Chemistry and Mathematics. Print roll number and name of top ten student in the order of merits. The merits is based on the sum of the marks obtained in the three subject
16. Write a program to create a suitable structure of the 500 employee in an organization regarding their personal information [Make suitable assumptions but at least four attributes should be in the structure]. Also list the employees belonging to a particular state.
17. Create a suitable structure in C language for keeping the records of a employees of an organization about their Code, Name, Designation, Salary, Department, City of posting. Also write a program in C to enter the records of 200 employee and display the names of those who earn greater than Rs. 50,000. (Make suitable assumptions for data types).



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