

Define a structure cricket which consist following members

10

- (i) player name
- (ii) country name
- (iii) batting average

Input 20 player information of test playing country. Write a program

```
/*JUNE 2015*/
struct player
{
    char name[40],country[40];
    float avg;
};
void main()
{
    struct player p[20];
    int i;
    char s[40];

    for(i=0;i<20;i++)
    {
        printf("Enter player name, country name, average");
        scanf("%s%s%f",p[i].name,p[i].country,&p[i].avg);
    }
    printf("Enter name of the player to search ");
    scanf("%s",s);

    for(i=0;i<20;i++)
    {
        if(strcmp(p[i].name,s)==0)
        {
            printf("Name=%s\nCountry=%s\nAverage=%f\n",p[i].name,p[i].country,p[i].avg);
        }
    }
}
```

Explain structures in C ? What do you mean by nested structure ? A company needs to maintain data about their employees. Details to be maintained are Employee name , Department , Date of joining , Salary. Write a program which will store these details and list the employees whose salary is greater than Rs. 50000.00

10

```
/*Jun 2016*/
struct name
{
    char fname[20],mname[20],sname[20];
};
struct DOJ
{
    int d,m,y;
};
struct employee
{
    struct name n;
    struct DOJ date;
    char dept[30];
    float sal;
};

void main()
{
    struct employee x[100];
    int i,N;
    printf("Enter the number of employees");
    scanf("%d",&N);
    for(i=0;i<N;i++)
    {
        printf("Enter first name, middle name, surname, date, month, year of joining, department,
salary");
        scanf("%s%s%s%d%d%d%s%f",x[i].n.fname,x[i].n.mname,x[i].n.sname,&x[i].date.d,&x[i].date.m,&x[i].date
.y,&x[i].dept,&x[i].sal);

    }
    for(i=0;i<N;i++)
    {
        if(x[i].sal>50000)
        {
            printf("Name: %s %s %s\nDate of Joining=%d-%d-
%d\nDepartment=%s\nSalary=%f\n",x[i].n.fname,x[i].n.mname,x[i].n.sname,x[i].date.d,x[i].date.m,x[i].date.y,x[i].
dept,x[i].sal);
        }
    }
}
```

a. What are structures? Comment on nested structures. Write a program to read Title, Author and Price of 10 books using array of structures. Display the records in ascending order of Price. 10

```
/*May 2017*/
struct book
{
    char title[20],author[20];
    int price;
};
void main()
{
    struct book x[10],t;
    int i,pos,cpos;
    for(i=0;i<10;i++)
    {
        printf("Enter title, author, price");
        scanf("%s%s%d",x[i].title,x[i].author,&x[i].price);
    }
    for(pos=0;pos<=8;pos++)
    {
        for(cpos=pos+1;cpos<=9;cpos++)
        {
            if(x[pos].price>x[cpos].price)
            {
                t=x[pos];
                x[pos]=x[cpos];
                x[cpos]=t;
            }
        }
    }
    printf("Sorted list is");
    for(i=0;i<10;i++)
    {
        printf("Title=%s\nAuthor=%s\nPrice=%d\n\n",x[i].title,x[i].author,x[i].price);
    }
}
```

A Hospital needs to maintain details of patients . Details to be maintained are, First name, Middle name , Surname, Date of Birth, Disease. Write a C program which will print the list of all patients with given disease.

```
/* JUNE 2014 */
struct name
{
    char fname[20],mname[20],sname[20];
};
struct DOB
{
    int d,m,y;
};
struct patient
{
    struct name n;
    struct DOB date;
    char dis[40];
};
void main()
{
    struct patient p[100];
    int i,N;
    char s[40];

    printf("Enter number of patients");
    scanf("%d",&N);

    for(i=0;i<N;i++)
    {
        printf("Enter patient first name, middle name, surname, date of birth, month, year,disease ");

        scanf("%s%s%s%d%d%d%s",p[i].n.fname,p[i].n.mname,p[i].n.sname,&p[i].date.d,&p[i].date.m,&p[i].date.
y,p[i].dis);
    }
    printf("Enter disease to search ");
    scanf("%s",s);

    for(i=0;i<N;i++)
    {
        if(strcmpi(p[i].dis,s)==0)
        {
            printf("Name=%s %s %s\nDOB=%d-%d-
%d\n\n",p[i].n.fname,p[i].n.mname,p[i].n.sname,p[i].date.d,p[i].date.m,p[i].date.y);
        }
    }
}
```