

PROBLEM SOLVING WITH PROGRAMMING [RA18]
(PSP)

COURSE PROJECT

(2019-20)

Developed By:

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PROBLEM STATEMENT:

Develop a C Application to store details of cricketers in Test, ODI, T20 formats in terms of name, nation, year of entry, no.of matches played, no.of runs scored, strike rate, no.of sixes, no.of centuries, no.of wickets taken. Allocate memory using DYNAMIC MEMORY MANAGEMENT FUNCTIONS.

Provide the functionality for below mentioned:

1. Read n cricketer details dynamically.
2. Sort (Ascending/Descending) n cricketers details according to:
 - Name wise
 - Nation wise
 - Year of entry wise
 - No.of matches played
 - No.of runs scored
 - Strike rate wise
 - No.of Sixes wise
 - No.of Centuries wise
 - No.of wickets taken wise
3. Search n cricketers details according to :
 - Name wise

Nation wise

Year of entry wise

No.of matches played

No.of runs scored

Strike rate wise

No.of sixes wise

No.of centuries wise

No.of wickets taken wise

4. Print n cricketer details.

MODULES:

In this application all variables and structure are declared globally so that these variables and structure members can be accessed throughout the program at any function call. We can choose any function by using function calls which are declared in switch-case. In order to repeat the loop control statement (do-while) is used with condition. The memory allocation will be done in this program dynamically. The application asks the user of the program that how many cricketers data he/she want to store.

In this application four modules are used.

1. Read/Input

In this module the application asks the person who runs the program to enter n cricketer details. To give cricketer details for loop is used.

2. Sorting

In this module sorting of data is done according to the chosen wise.

In this module there is a sub menu which asks to select the sorting wise by using switch case. The sorting sub menu will be like press 1 .Nation wise 2.Year of entry wise 3.No.of matches played 4.No.of runs scored 5.Strike rate wise 6.No.of sixes wise 7. No.of centuries wise 8. No.of wickets taken wise

3. Searching

In this module searching of data can be done. In this module there is a sub menu which asks to select the search wise by using switch case. The searching sub menu will be like press 1 .Nation wise 2.Year of entry wise 3.No.of matches played 4.No.of runs scored 5.Strike rate wise 6.No.of sixes wise 7. No.of centuries wise 8. No.of wickets taken wise

4. Print

In this module all the stored details of n cricketers will be displayed on to the screen. In this module printf function and for loop are used.

KNOWLEDGE REQUIRED TO DEVELOP THIS APPLICATION

Control Statements(if, if-else, switch)

Loop Statements(do while, for)

Arrays (1-arrays)

Strings (Strings and Table of strings) and its functions (strcpy, strcmp)

Functions (Any type of user defined functions)

Structure (structures and nested structures)

Pointers (pointer to strings and pointers to structures)

Dynamic Memory Allocation (malloc/ calloc/realloc)

SOURCE CODE:

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

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

```
#include<stdlib.h>
```

```
//structure definition
```

```
struct cricket
```

```
{
```

```
    char name[30];
```

```
    char nation[30];
```

```
    struct test
```

```
{
```

```
    char yoe[30];
```

```
    char nmp[30];
```

```
    char nrs[30];
```

```
    char sr[30];
```

```
    char nos[30];
```

```
    char noc[30];
```

```
    char nwt[30];
```

```
}t;
```

```
struct odi
{
char yoe[30];
char nmp[30];
char nrs[30];
char sr[30];
char nos[30];
char noc[30];
char nwt[30];
};
```

```
struct t20
{
char yoe[30];
char nmp[30];
char nrs[30];
char sr[30];
char nos[30];
char noc[30];
char nwt[30];
```

```
}tw;
```

```
};
```

```
//function prototype
```

```
void read(void);
```

```
void sort(void);
```

```
void search(void);
```

```
void print(void);
```

```
void test();
```

```
void odi();
```

```
void t20();
```

```
void name();
```

```
void nation();
```

```
void yoe();
```

```
void nmp();
```

```
void nrs();
```

```
void sr();
```

```
void nos();
```

```
void noc();
```

```
void nwt();
```


void nameo();

void nationo();

void yoeo();

void nmpo();

void nrso();

void sro();

void noso();

void noco();

void nwto();

void namet();

void nationt();

void yoet();

void nmpt();

void nrst();

void srt();

void nost();

void noct();

void nwtt();

void test1();

void odi1();

void t201();

void name1();

void nation1();

void yoe1();

void nmp1();

void nrs1();

void sr1();

void nos1();

void noc1();

void nwt1();

void name2();

void nation2();

void yoe2();

void nmp2();

void nrs2();

void sr2();

void nos2();

void noc2();

```
void nwt2();
```

```
void name3();
```

```
void nation3();
```

```
void yoe3();
```

```
void nmp3();
```

```
void nrs3();
```

```
void sr3();
```

```
void nos3();
```

```
void noc3();
```

```
void nwt3();
```

```
//global variables
```

```
char
```

```
a,temp[50],nam[30],nat[30],y[10],nm[10],nr[10],s[10],nsix[10],ncen[10],nwkt[10];
```

```
char
```

```
nam2[30],nat2[30],y2[10],nm2[10],nr2[10],s2[10],nsix2[10],ncen2[10],nwkt2[10];
```

```
char
```

```
nam3[30],nat3[30],y3[10],nm3[10],nr3[10],s3[10],nsix3[10],ncen3[10],nwkt3[10];
```

```
int ch,sel,i,j,p1,x,n,b=0;
```

```
struct cricket *cr,*ptr;

//main starts here

main()

{

    //menu repetition

    printf("\n enter the no. of cricketers:");

    scanf("%d",&n);

    ptr=(struct cricket *)malloc(n*sizeof(struct cricket));

    cr=ptr;

    do

    {

        c:

        printf("\n MENU:\n 1.READ DATA\n 2.SORTING\n 3.SEARCHING\n 4.PRINT DATA");

        printf("\n enter option:");

        scanf("%d",&ch);

        if(b==0&&ch!=1)

        {

            printf("\n Please read the data to choose other options");
```

```
goto c;
```

```
}
```

```
else
```

```
//switch case
```

```
switch(ch)
```

```
{
```

```
case 1:read();//function call
```

```
break;
```

```
case 2:sort();//function call
```

```
break;
```

```
case 3:search();//function call
```

```
break;
```

```
case 4:print();//function call
```

```
break;
```

```
}
```

```
printf("\n enter y or Y to continue,enter n or N to exit:");
```

```
scanf(" %c",&a);
```

```
b++;
```

```
}
```

```
while(a=='y' || a=='Y');

}

//function definitions

void read(void)

{

printf("\n enter details of cricketers");

for(i=0;i<n;i++)

{

printf("\n enter details of cricketer %d",i+1);

printf("\n enter cricketer name:");

scanf("%s",cr->name);

printf("\n enter the nation he play:");

scanf("%s",cr->nation);

printf("\n enter details of %s in test series",cr->name);

printf("\n enter the year he entered test matches:");

scanf("%s",cr->t.yoe);

printf("\n enter the no. of matches played in test:");

scanf("%s",cr->t.nmp);

printf("\n enter the no. of runs scored in test:");
```

```
scanf("%s",cr->t.nrs);

printf("\n enter the strike rate in test:");

scanf("%s",cr->t.sr);

printf("\n enter no. of sixers hit in test:");

scanf("%s",cr->t.nos);

printf("\n enter no. of centuries scored in test:");

scanf("%s",cr->t.noc);

printf("\n enter no. of wickets taken in test:");

scanf("%s",cr->t.nwt);

printf("\n enter details of %s in ODI matches",cr->name);

printf("\n enter the year he entered ODI matches:");

scanf("%s",cr->o.yoe);

printf("\n enter the no. of matches played in ODI:");

scanf("%s",cr->o.nmp);

printf("\n enter the no. of runs scored in ODI:");

scanf("%s",cr->o.nrs);

printf("\n enter the strike rate in ODI");

scanf("%s",cr->o.sr);

printf("\n enter no. of sixers hit in ODI:");
```

```
scanf("%s",cr->o.nos);

printf("\n enter no. of centuries scored in ODI:");

scanf("%s",cr->o.noc);

printf("\n enter no. of wickets taken in ODI:");

scanf("%s",cr->o.nwt);

printf("\n enter details of %s in T20 matches",cr->name);

printf("\n enter the year he entered T20 matches:");

scanf("%s",cr->tw.yoe);

printf("\n enter the no. of matches played in T20:");

scanf("%s",cr->tw.nmp);

printf("\n enter the no. of runs scored in T20:");

scanf("%s",cr->tw.nrs);

printf("\n enter the strike rate in T20");

scanf("%s",cr->tw.sr);

printf("\n enter no. of sixers hit in T20:");

scanf("%s",cr->tw.nos);

printf("\n enter no. of centuries scored in T20:");

scanf("%s",cr->tw.noc);

printf("\n enter no. of wickets taken in T20:");
```



```
scanf("%s",cr->tw.nwt);

cr++;

}

}

void sort()

{

printf("\n MENU FOR SORTING:\n 1.Test wise\n 2.ODI wise\n 3.T20 wise");

printf("\n enter option:");

scanf("%d",&ch);

//switch Case

switch(ch)

{

case 1:test();

break;

case 2:odi();

break;

case 3:t20();

break;

default: printf("\n sorry you entered wrong option try again");
```

```
}
```

```
}
```

```
void test()
```

```
{
```

```
printf("\n Menu for sorting:");
```

```
printf("\n 1.Name wise\n 2.Nation wise\n 3.Year wise\n 4.No. of matches  
played wise");
```

```
printf("\n 5.No. of runs scored Wise\n 6.Strike rate wise\n 7.No. of Sixers  
wise");
```

```
printf("\n 8.No. of centuries wise\n 9.No. of wickets wise");
```

```
printf("\n select option:");
```

```
scanf("%d",&sel);
```

```
switch(sel)
```

```
{
```

```
case 1:name();
```

```
break;
```

```
case 2:nation();
```

```
break;
```

```
case 3:yoe();
```

```
break;
```

```
case 4:nmp();
```

```
break;
```

```
case 5:nrs();
```

```
break;
```

```
case 6:sr();
```

```
break;
```

```
case 7:nos();
```

```
break;
```

```
case 8:noc();
```

```
break;
```

```
case 9:nwt();
```

```
break;
```

```
}
```

```
}
```

```
void name()
```

```
{
```

```
cr=ptr;
```

```
char str[10][50];
```

```
int y;

for(i=0;i<n;i++)

{

    strcpy(str[i],cr->name);

    cr++;

}

for(i=0;i<n;i++)

{

    for(j=i+1;j<n;j++)

    {

        y=strcmp(str[i],str[j]);

        if(y==1)

        {

            strcpy(temp,str[i]);

            strcpy(str[i],str[j]);

            strcpy(str[j],temp);

        }

    }

}
```

```
printf("\n sorted list:\n");

for(i=0;i<n;i++)

puts(str[i]);

}

void nation()

{

cr=ptr;

char str[10][50];

int y;

for(i=0;i<n;i++)

{

strcpy(str[i],cr->nation);

cr++;

}

for(i=0;i<n;i++)

{

for(j=i+1;j<n;j++)

{

y=strcmp(str[i],str[j]);
```

```
if(y==1)

{

    strcpy(temp,str[i]);

    strcpy(str[i],str[j]);

    strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void yoe()

{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)

    {
```

```
strcpy(str[i],cr->t.yoe);

cr++;

}

for(i=0;i<n;i++)

{

for(j=i+1;j<n;j++)

{

y=strcmp(str[i],str[j]);

if(y==1)

{

strcpy(temp,str[i]);

strcpy(str[i],str[j]);

strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

puts(str[i]);
```

```
}
```

```
void nmp()
```

```
{
```

```
    cr=ptr;
```

```
    char str[10][50];
```

```
    int y;
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        strcpy(str[i],cr->t.nmp);
```

```
        cr++;
```

```
    }
```

```
    for(i=0;i<n;i++)
```

```
    {
```

```
        for(j=i+1;j<n;j++)
```

```
        {
```

```
            y=strcmp(str[i],str[j]);
```

```
            if(y==1)
```

```
            {
```

```
                strcpy(temp,str[i]);
```



```
    strcpy(str[i],str[j]);

    strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void nrs()

{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)

    {

        strcpy(str[i],cr->t.nrs);

        cr++;

    }
```

```
for(i=0;i<n;i++)  
  
{  
  
for(j=i+1;j<n;j++)  
  
{  
  
y=strcmp(str[i],str[j]);  
  
if(y==1)  
  
{  
  
strcpy(temp,str[i]);  
  
strcpy(str[i],str[j]);  
  
strcpy(str[j],temp);  
  
}  
  
}  
  
}  
  
printf("\n sorted list:\n");  
  
for(i=0;i<n;i++)  
  
puts(str[i]);  
  
}  
  
void sr()  
  
{
```

```
cr=ptr;

char str[10][50];

int y;

for(i=0;i<n;i++)

{

    strcpy(str[i],cr->t.sr);

    cr++;

}

for(i=0;i<n;i++)

{

    for(j=i+1;j<n;j++)

    {

        y=strcmp(str[i],str[j]);

        if(y==1)

        {

            strcpy(temp,str[i]);

            strcpy(str[i],str[j]);

            strcpy(str[j],temp);

        }

    }

}
```

```
}
```

```
}
```

```
printf("\n sorted list:\n");
```

```
for(i=0;i<n;i++)
```

```
puts(str[i]);
```

```
}
```

```
void nos()
```

```
{
```

```
cr=ptr;
```

```
char str[10][50];
```

```
int y;
```

```
for(i=0;i<n;i++)
```

```
{
```

```
strcpy(str[i],cr->t.nos);
```

```
cr++;
```

```
}
```

```
for(i=0;i<n;i++)
```

```
{
```

```
for(j=i+1;j<n;j++)
```

```
{  
  
y=strcmp(str[i],str[j]);  
  
if(y==1)  
  
{  
  
    strcpy(temp,str[i]);  
  
    strcpy(str[i],str[j]);  
  
    strcpy(str[j],temp);  
  
}  
  
}  
  
}  
  
printf("\n sorted list:\n");  
  
for(i=0;i<n;i++)  
  
    puts(str[i]);  
  
}  
  
void noc()  
  
{  
  
    cr=ptr;  
  
    char str[10][50];  
  
    int y;
```

```
for(i=0;i<n;i++)  
  
{  
  
    strcpy(str[i],cr->t.noc);  
  
    cr++;  
  
}  
  
for(i=0;i<n;i++)  
  
{  
  
    for(j=i+1;j<n;j++)  
  
    {  
  
        y=strcmp(str[i],str[j]);  
  
        if(y==1)  
  
        {  
  
            strcpy(temp,str[i]);  
  
            strcpy(str[i],str[j]);  
  
            strcpy(str[j],temp);  
  
        }  
  
    }  
  
}  
  
printf("\n sorted list:\n");
```

```
for(i=0;i<n;i++)  
  
    puts(str[i]);  
  
}  
  
void nwt()  
  
{  
  
    cr=ptr;  
  
    char str[10][50];  
  
    int y;  
  
    for(i=0;i<n;i++)  
  
    {  
  
        strcpy(str[i],cr->t.nwt);  
  
        cr++;  
  
    }  
  
    for(i=0;i<n;i++)  
  
    {  
  
        for(j=i+1;j<n;j++)  
  
        {  
  
            y=strcmp(str[i],str[j]);  
  
            if(y==1)
```

```
{

    strcpy(temp,str[i]);

    strcpy(str[i],str[j]);

    strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void odi()

{

    printf("\n Menu for sorting:");

    printf("\n 1.Name wise\n 2.Nation wise\n 3.Year wise\n 4.No. of matches\n played wise");

    printf("\n 5.No. of runs scored Wise\n 6.Strike rate wise\n 7.No. of Sixers\n wise");

    printf("\n 8.No. of centuries wise\n 9.No. of wickets wise");
```



```
printf("\n select option:");
```

```
scanf("%d",&sel);
```

```
switch(sel)
```

```
{
```

```
    case 1:nameo();
```

```
    break;
```

```
    case 2:nationo();
```

```
    break;
```

```
    case 3:yoeo();
```

```
    break;
```

```
    case 4:nmpo();
```

```
    break;
```

```
    case 5:nrso();
```

```
    break;
```

```
    case 6:sro();
```

```
    break;
```

```
    case 7:noso();
```

```
    break;
```

```
    case 8:noco();
```

```
break;
```

```
case 9:nwto();
```

```
break;
```

```
}
```

```
}
```

```
void nameo()
```

```
{
```

```
cr=ptr;
```

```
char str[10][50];
```

```
int y;
```

```
for(i=0;i<n;i++)
```

```
{
```

```
strcpy(str[i],cr->name);
```

```
cr++;
```

```
}
```

```
for(i=0;i<n;i++)
```

```
{
```

```
for(j=i+1;j<n;j++)
```

```
{
```

```
y=strcmp(str[i],str[j]);
```

```
if(y==1)
```

```
{
```

```
    strcpy(temp,str[i]);
```

```
    strcpy(str[i],str[j]);
```

```
    strcpy(str[j],temp);
```

```
}
```

```
}
```

```
}
```

```
printf("\n sorted list:\n");
```

```
for(i=0;i<n;i++)
```

```
    puts(str[i]);
```

```
}
```

```
void nationo()
```

```
{
```

```
    cr=ptr;
```

```
    char str[10][50];
```

```
    int y;
```

```
    for(i=0;i<n;i++)
```

```
{  
  
    strcpy(str[i],cr->nation);  
  
    cr++;  
  
}  
  
for(i=0;i<n;i++)  
  
{  
  
    for(j=i+1;j<n;j++)  
  
    {  
  
        y=strcmp(str[i],str[j]);  
  
        if(y==1)  
  
        {  
  
            strcpy(temp,str[i]);  
  
            strcpy(str[i],str[j]);  
  
            strcpy(str[j],temp);  
  
        }  
  
    }  
  
}  
  
printf("\n sorted list:\n");  
  
for(i=0;i<n;i++)
```

```
puts(str[i]);  
  
}  
  
void yoeo()  
  
{  
  
    cr=ptr;  
  
    char str[10][50];  
  
    int y;  
  
    for(i=0;i<n;i++)  
  
    {  
  
        strcpy(str[i],cr->o.yoe);  
  
        cr++;  
  
    }  
  
    for(i=0;i<n;i++)  
  
    {  
  
        for(j=i+1;j<n;j++)  
  
        {  
  
            y=strcmp(str[i],str[j]);  
  
            if(y==1)  
  
            {
```

```
    strcpy(temp,str[i]);

    strcpy(str[i],str[j]);

    strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void nmpo()

{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)

    {

        strcpy(str[i],cr->o.nmp);

        cr++;
    }
}
```

```
}

for(i=0;i<n;i++)

{

    for(j=i+1;j<n;j++)

    {

        y=strcmp(str[i],str[j]);

        if(y==1)

        {

            strcpy(temp,str[i]);

            strcpy(str[i],str[j]);

            strcpy(str[j],temp);

        }

    }

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void nrso()
```

```
{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)

    {

        strcpy(str[i],cr->o.nrs);

        cr++;

    }

    for(i=0;i<n;i++)

    {

        for(j=i+1;j<n;j++)

        {

            y=strcmp(str[i],str[j]);

            if(y==1)

            {

                strcpy(temp,str[i]);

                strcpy(str[i],str[j]);

                strcpy(str[j],temp);

            }

        }

    }

}
```



```
}
```

```
}
```

```
}
```

```
printf("\n sorted list:\n");
```

```
for(i=0;i<n;i++)
```

```
puts(str[i]);
```

```
}
```

```
void sro()
```

```
{
```

```
cr=ptr;
```

```
char str[10][50];
```

```
int y;
```

```
for(i=0;i<n;i++)
```

```
{
```

```
strcpy(str[i],cr->o.sr);
```

```
cr++;
```

```
}
```

```
for(i=0;i<n;i++)
```

```
{
```

```
for(j=i+1;j<n;j++)  
  
{  
  
y=strcmp(str[i],str[j]);  
  
if(y==1)  
  
{  
  
strcpy(temp,str[i]);  
  
strcpy(str[i],str[j]);  
  
strcpy(str[j],temp);  
  
}  
  
}  
  
}  
  
printf("\n sorted list:\n");  
  
for(i=0;i<n;i++)  
  
puts(str[i]);  
  
}  
  
void noso()  
  
{  
  
cr=ptr;  
  
char str[10][50];
```

```
int y;  
  
for(i=0;i<n;i++)  
  
{  
  
    strcpy(str[i],cr->o.nos);  
  
    cr++;  
  
}  
  
for(i=0;i<n;i++)  
  
{  
  
    for(j=i+1;j<n;j++)  
  
    {  
  
        y=strcmp(str[i],str[j]);  
  
        if(y==1)  
  
        {  
  
            strcpy(temp,str[i]);  
  
            strcpy(str[i],str[j]);  
  
            strcpy(str[j],temp);  
  
        }  
  
    }  
  
}
```

```
printf("\n sorted list:\n");

for(i=0;i<n;i++)

puts(str[i]);

}

void noco()

{

cr=ptr;

char str[10][50];

int y;

for(i=0;i<n;i++)

{

strcpy(str[i],cr->o.noc);

cr++;

}

for(i=0;i<n;i++)

{

for(j=i+1;j<n;j++)

{

y=strcmp(str[i],str[j]);
```

```
if(y==1)

{

    strcpy(temp,str[i]);

    strcpy(str[i],str[j]);

    strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void nwto()

{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)

    {
```

```
strcpy(str[i],cr->o.nwt);

cr++;

}

for(i=0;i<=n;i++)

{

for(j=i+1;j<=n;j++)

{

y=strcmp(str[i],str[j]);

if(y==1)

{

strcpy(temp,str[i]);

strcpy(str[i],str[j]);

strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

puts(str[i]);
```

```
}
```

```
void t20()
```

```
{
```

```
printf("\n Menu for sorting:");
```

```
printf("\n 1.Name wise\n 2.Nation wise\n 3.Year wise\n 4.No. of matches  
played wise");
```

```
printf("\n 5.No. of runs scored Wise\n 6.Strike rate wise\n 7.No. of Sixers  
wise");
```

```
printf("\n 8.No. of centuries wise\n 9.No. of wickets wise");
```

```
printf("\n select option:");
```

```
scanf("%d",&sel);
```

```
switch(sel)
```

```
{
```

```
case 1:namet();
```

```
break;
```

```
case 2:nationt();
```

```
break;
```

```
case 3:yoet();
```

```
break;
```

```
case 4:nmpt();
```

```
break;
```

```
case 5:nrst();
```

```
break;
```

```
case 6:srt();
```

```
break;
```

```
case 7:nost();
```

```
break;
```

```
case 8:noct();
```

```
break;
```

```
case 9:nwtt();
```

```
break;
```

```
}
```

```
}
```

```
void namet()
```

```
{
```

```
cr=ptr;
```

```
char str[10][50];
```

```
int y;
```



```
for(i=0;i<n;i++)  
  
{  
  
    strcpy(str[i],cr->name);  
  
    cr++;  
  
}  
  
for(i=0;i<n;i++)  
  
{  
  
    for(j=i+1;j<n;j++)  
  
    {  
  
        y=strcmp(str[i],str[j]);  
  
        if(y==1)  
  
        {  
  
            strcpy(temp,str[i]);  
  
            strcpy(str[i],str[j]);  
  
            strcpy(str[j],temp);  
  
        }  
  
    }  
  
}  
  
printf("\n sorted list:\n");
```

```
for(i=0;i<n;i++)  
  
    puts(str[i]);  
  
}  
  
void nationt()  
  
{  
  
    cr=ptr;  
  
    char str[10][50];  
  
    int y;  
  
    for(i=0;i<n;i++)  
  
    {  
  
        strcpy(str[i],cr->nation);  
  
        cr++;  
  
    }  
  
    for(i=0;i<n;i++)  
  
    {  
  
        for(j=i+1;j<n;j++)  
  
        {  
  
            y=strcmp(str[i],str[j]);  
  
            if(y==1)
```

```
{  
  
    strcpy(temp,str[i]);  
  
    strcpy(str[i],str[j]);  
  
    strcpy(str[j],temp);  
  
}  
  
}  
  
}  
  
printf("\n sorted list:\n");  
  
for(i=0;i<n;i++)  
  
    puts(str[i]);  
  
}  
  
void yoet()  
  
{  
  
    cr=ptr;  
  
    char str[10][50];  
  
    int y;  
  
    for(i=0;i<n;i++)  
  
    {  
  
        strcpy(str[i],cr->tw.yoe);
```

```
    cr++;

}

for(i=0;i<n;i++)

{

    for(j=i+1;j<n;j++)

    {

        y=strcmp(str[i],str[j]);

        if(y==1)

        {

            strcpy(temp,str[i]);

            strcpy(str[i],str[j]);

            strcpy(str[j],temp);

        }

    }

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}
```

```
void nmpt()

{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)

    {

        strcpy(str[i],cr->tw.nmp);

        cr++;

    }

    for(i=0;i<n;i++)

    {

        for(j=i+1;j<n;j++)

        {

            y=strcmp(str[i],str[j]);

            if(y==1)

            {

                strcpy(temp,str[i]);

                strcpy(str[i],str[j]);
```

```
    strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

puts(str[i]);

}

void nrst()

{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)

    {

        strcpy(str[i],cr->tw.nrs);

        cr++;

    }

    for(i=0;i<n;i++)
```

```
{  
  
for(j=i+1;j<n;j++)  
  
{  
  
y=strcmp(str[i],str[j]);  
  
if(y==1)  
  
{  
  
strcpy(temp,str[i]);  
  
strcpy(str[i],str[j]);  
  
strcpy(str[j],temp);  
  
}  
  
}  
  
}  
  
printf("\n sorted list:\n");  
  
for(i=0;i<n;i++)  
  
puts(str[i]);  
  
}  
  
void srt()  
  
{  
  
cr=ptr;
```

```
char str[10][50];

int y;

for(i=0;i<n;i++)

{

    strcpy(str[i],cr->tw.sr);

    cr++;

}

for(i=0;i<n;i++)

{

    for(j=i+1;j<n;j++)

    {

        y=strcmp(str[i],str[j]);

        if(y==1)

        {

            strcpy(temp,str[i]);

            strcpy(str[i],str[j]);

            strcpy(str[j],temp);

        }

    }

}
```



```
}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void nost()

{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)

    {

        strcpy(str[i],cr->tw.nos);

        cr++;

    }

    for(i=0;i<n;i++)

    {

        for(j=i+1;j<n;j++)

        {
```

```
y=strcmp(str[i],str[j]);

if(y==1)

{

    strcpy(temp,str[i]);

    strcpy(str[i],str[j]);

    strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void noct()

{

    cr=ptr;

    char str[10][50];

    int y;

    for(i=0;i<n;i++)
```

```
{  
  
    strcpy(str[i],cr->tw.noc);  
  
    cr++;  
  
}  
  
for(i=0;i<n;i++)  
  
{  
  
    for(j=i+1;j<n;j++)  
  
    {  
  
        y=strcmp(str[i],str[j]);  
  
        if(y==1)  
  
        {  
  
            strcpy(temp,str[i]);  
  
            strcpy(str[i],str[j]);  
  
            strcpy(str[j],temp);  
  
        }  
  
    }  
  
}  
  
printf("\n sorted list:\n");  
  
for(i=0;i<n;i++)
```

```
    puts(str[i]);  
  
}  
  
void nwtt()  
  
{  
  
    cr=ptr;  
  
    char str[10][50];  
  
    int y;  
  
    for(i=0;i<n;i++)  
  
    {  
  
        strcpy(str[i],cr->tw.nwt);  
  
        cr++;  
  
    }  
  
    for(i=0;i<n;i++)  
  
    {  
  
        for(j=i+1;j<n;j++)  
  
        {  
  
            y=strcmp(str[i],str[j]);  
  
            if(y==1)  
  
            {
```

```
    strcpy(temp,str[i]);

    strcpy(str[i],str[j]);

    strcpy(str[j],temp);

}

}

}

printf("\n sorted list:\n");

for(i=0;i<n;i++)

    puts(str[i]);

}

void search()

{

    printf("\n MENU FOR SEARCHING:\n 1.Test wise\n 2.ODI wise\n 3.T20 wise");

    scanf("%d",&ch);

    printf("\n enter option:");

    //switch case

    switch(ch)

    {

        case 1:test1();//function call
```

```
break;

case 2:odi1();//function call

break;

case 3:t201();//function call

break;

default:printf("\n sorry you entered wrong option try again");

}

}

void test1()

{

printf("\n Menu for sorting:");

printf("\n 1.Name wise\n 2.Nation wise\n 3.Year wise\n 4.No. of matches
played wise");

printf("\n 5.No. of runs scored Wise\n 6.Strike rate wise\n 7.No. of Sixers
wise");

printf("\n 8.No. of centuries wise\n 9.No. of wickets wise");

printf("\n select option:");

scanf("%d",&sel);

switch(sel)
```

```
{  
  
    case 1:name1();  
  
    break;  
  
    case 2:nation1();  
  
    break;  
  
    case 3:yoe1();  
  
    break;  
  
    case 4:nmp1();  
  
    break;  
  
    case 5:nrs1();  
  
    break;  
  
    case 6:sr1();  
  
    break;  
  
    case 7:nos1();  
  
    break;  
  
    case 8:noc1();  
  
    break;  
  
    case 9:nwt1();  
  
    break;
```

```
}
```

```
}
```

```
void name1()
```

```
{
```

```
int cv=0;
```

```
cr=ptr;
```

```
printf("\n enter cricketer name:");
```

```
scanf("%s",nam);
```

```
for(i=0;i<n;i++)
```

```
{
```

```
x=strcmp(nam,cr->name);
```

```
if(x==0)
```

```
{
```

```
printf("\n Name: %s",cr->name);
```

```
printf("\n Nation: %s",cr->nation);
```

```
printf("\n year of entry to test matches: %s",cr->t.yoe);
```

```
printf("\n No. of matches played in test: %s",cr->t.nmp);
```

```
printf("\n No. of runs scored in test: %s",cr->t.nrs);
```

```
printf("\n Strike rate in test: %s",cr->t.sr);
```



```
printf("\n No. of sixes hit in test: %s",cr->t.nos);

printf("\n No. of centuries scored in test: %s",cr->t.noc);

printf("\n No. of wickets taken in test: %s",cr->t.nwt);

cv++;

}

cr++;

}

}

void nation1()

{

int cv=0;

cr=ptr;

printf("\n enter the nation he play:");

scanf("%s",nat);

for(i=0;i<n;i++)

{

x=strcmp(nat,cr->nation);

if(x==0)

{
```

```
printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to test matches: %s",cr->t.yoe);

printf("\n No. of matches played in test: %s",cr->t.nmp);

printf("\n No. of runs scored in test: %s",cr->t.nrs);

printf("\n Strike rate in test: %s",cr->t.sr);

printf("\n No. of sixes hit in test: %s",cr->t.nos);

printf("\n No. of centuries scored in test: %s",cr->t.noc);

printf("\n No. of wickets taken in test: %s",cr->t.nwt);

cv++;

}

cr++;

}

}

void yoe1()

{

int cv=0;

cr=ptr;

printf("\n enter year of entry to test:");
```

```
scanf("%s",y);

for(i=0;i<n;i++)

{

    x=strcmp(y,cr->name);

    if(x==0)

    {

        printf("\n Name: %s",cr->name);

        printf("\n Nation: %s",cr->nation);

        printf("\n year of entry to test matches: %s",cr->t.yoe);

        printf("\n No. of matches played in test: %s",cr->t.nmp);

        printf("\n No. of runs scored in test: %s",cr->t.nrs);

        printf("\n Strike rate in test: %s",cr->t.sr);

        printf("\n No. of sixes hit in test: %s",cr->t.nos);

        printf("\n No. of centuries scored in test: %s",cr->t.noc);

        printf("\n No. of wickets taken in test: %s",cr->t.nwt);

        cv++;

    }

    cr++;

}
```

```
}
```

```
void nmp1()
```

```
{
```

```
int cv=0;
```

```
cr=ptr;
```

```
printf("\n enter no. of matches played in test:");
```

```
scanf("%s",nm);
```

```
for(i=0;i<n;i++)
```

```
{
```

```
x=strcmp(nm,cr->name);
```

```
if(x==0)
```

```
{
```

```
printf("\n Name: %s",cr->name);
```

```
printf("\n Nation: %s",cr->nation);
```

```
printf("\n year of entry to test matches: %s",cr->t.yoe);
```

```
printf("\n No. of matches played in test: %s",cr->t.nmp);
```

```
printf("\n No. of runs scored in test: %s",cr->t.nrs);
```

```
printf("\n Strike rate in test: %s",cr->t.sr);
```

```
printf("\n No. of sixes hit in test: %s",cr->t.nos);
```

```
printf("\n No. of centuries scored in test: %s",cr->t.noc);

printf("\n No. of wickets taken in test: %s",cr->t.nwt);

cv++;

}

cr++;

}

}

void nrs1()

{

int cv=0;

cr=ptr;

printf("\n enter no. of runs scored in test:");

scanf("%s",nr);

for(i=0;i<n;i++)

{

x=strcmp(nr,cr->name);

if(x==0)

{

printf("\n Name: %s",cr->name);
```

```
printf("\n Nation: %s",cr->nation);

printf("\n year of entry to test matches: %s",cr->t.yoe);

printf("\n No. of matches played in test: %s",cr->t.nmp);

printf("\n No. of runs scored in test: %s",cr->t.nrs);

printf("\n Strike rate in test: %s",cr->t.sr);

printf("\n No. of sixes hit in test: %s",cr->t.nos);

printf("\n No. of centuries scored in test: %s",cr->t.noc);

printf("\n No. of wickets taken in test: %s",cr->t.nwt);

cv++;

}

cr++;

}

}

void sr1()

{

int cv=0;

cr=ptr;

printf("\n enter strike rate in test:");

scanf("%s",s);
```

```
for(i=0;i<n;i++)  
  
{  
  
    x=strcmp(s,cr->name);  
  
    if(x==0)  
  
    {  
  
        printf("\n Name: %s",cr->name);  
  
        printf("\n Nation: %s",cr->nation);  
  
        printf("\n year of entry to test matches: %s",cr->t.yoe);  
  
        printf("\n No. of matches played in test: %s",cr->t.nmp);  
  
        printf("\n No. of runs scored in test: %s",cr->t.nrs);  
  
        printf("\n Strike rate in test: %s",cr->t.sr);  
  
        printf("\n No. of sixes hit in test: %s",cr->t.nos);  
  
        printf("\n No. of centuries scored in test: %s",cr->t.noc);  
  
        printf("\n No. of wickets taken in test: %s",cr->t.nwt);  
  
        cv++;  
  
    }  
  
    cr++;  
  
}  
  
}
```

```
void nos1()

{

    int cv=0;

    cr=ptr;

    printf("\n enter no. of sixes hit in test:");

    scanf("%s",nsix);

    for(i=0;i<n;i++)

    {

        x=strcmp(nsix,cr->name);

        if(x==0)

        {

            printf("\n Name: %s",cr->name);

            printf("\n Nation: %s",cr->nation);

            printf("\n year of entry to test matches: %s",cr->t.yoe);

            printf("\n No. of matches played in test: %s",cr->t.nmp);

            printf("\n No. of runs scored in test: %s",cr->t.nrs);

            printf("\n Strike rate in test: %s",cr->t.sr);

            printf("\n No. of sixes hit in test: %s",cr->t.nos);

            printf("\n No. of centuries scored in test: %s",cr->t.noc);
```



```
printf("\n No. of wickets taken in test: %s",cr->t.nwt);

cv++;

}

cr++;

}

}

void noc1()

{

int cv=0;

cr=ptr;

printf("\n enter no. of centuries scored in test:");

scanf("%s",ncen);

for(i=0;i<n;i++)

{

x=strcmp(ncen,cr->name);

if(x==0)

{

printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);
```

```
printf("\n year of entry to test matches: %s",cr->t.yoe);

printf("\n No. of matches played in test: %s",cr->t.nmp);

printf("\n No. of runs scored in test: %s",cr->t.nrs);

printf("\n Strike rate in test: %s",cr->t.sr);

printf("\n No. of sixes hit in test: %s",cr->t.nos);

printf("\n No. of centuries scored in test: %s",cr->t.noc);

printf("\n No. of wickets taken in test: %s",cr->t.nwt);

cv++;

}

cr++;

}

}

void nwt1()

{

int cv=0;

cr=ptr;

printf("\n enter no. of wickets taken in test:");

scanf("%s",nwkt);

for(i=0;i<n;i++)
```

```
{  
  
    x=strcmp(nwkt,cr->name);  
  
    if(x==0)  
  
    {  
  
        printf("\n Name: %s",cr->name);  
  
        printf("\n Nation: %s",cr->nation);  
  
        printf("\n year of entry to test matches: %s",cr->t.yoe);  
  
        printf("\n No. of matches played in test: %s",cr->t.nmp);  
  
        printf("\n No. of runs scored in test: %s",cr->t.nrs);  
  
        printf("\n Strike rate in test: %s",cr->t.sr);  
  
        printf("\n No. of sixes hit in test: %s",cr->t.nos);  
  
        printf("\n No. of centuries scored in test: %s",cr->t.noc);  
  
        printf("\n No. of wickets taken in test: %s",cr->t.nwt);  
  
        cv++;  
  
    }  
  
    cr++;  
  
}  
  
}  
  
void odi1()
```

```
{

printf("\n Menu for sorting:");

printf("\n 1.Name wise\n 2.Nation wise\n 3.Year wise\n 4.No. of matches
played wise");

printf("\n 5.No. of runs scored Wise\n 6.Strike rate wise\n 7.No. of Sixers
wise");

printf("\n 8.No. of centuries wise\n 9.No. of wickets wise");

printf("\n select option:");

scanf("%d",&sel);

switch(sel)

{

case 1:name2();

break;

case 2:nation2();

break;

case 3:yoe2();

break;

case 4:nmp2();

break;
```

```
case 5:nrs2();
```

```
break;
```

```
case 6:sr2();
```

```
break;
```

```
case 7:nos2();
```

```
break;
```

```
case 8:noc2();
```

```
break;
```

```
case 9:nwt2();
```

```
break;
```

```
}
```

```
}
```

```
void name2()
```

```
{
```

```
int cv=0;
```

```
cr=ptr;
```

```
printf("\n enter cricketer name:");
```

```
scanf("%s",nam2);
```

```
for(i=0;i<n;i++)
```

```

{

x=strcmp(nam2,cr->name);

if(x==0)

{

printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to ODI matches: %s",cr->o.yoe);

printf("\n No. of matches played in ODI: %s",cr->o.nmp);

printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

printf("\n Strike rate in ODI: %s",cr->o.sr);

printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

cv++;

}

cr++;

}

}

void nation2()

```

```
{

int cv=0;

cr=ptr;

printf("\n enter the nation he play:");

scanf("%s",nat2);

for(i=0;i<n;i++)

{

x=strcmp(nat2,cr->nation);

if(x==0)

{

printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to ODI matches: %s",cr->o.yoe);

printf("\n No. of matches played in ODI: %s",cr->o.nmp);

printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

printf("\n Strike rate in ODI: %s",cr->o.sr);

printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);
```

```
    cv++;

}

    cr++;

}

}

void yoe2()

{

    int cv=0;

    cr=ptr;

    printf("\n enter year of entry to ODI:");

    scanf("%s",y2);

    for(i=0;i<n;i++)

    {

        x=strcmp(y2,cr->name);

        if(x==0)

        {

            printf("\n Name: %s",cr->name);

            printf("\n Nation: %s",cr->nation);

            printf("\n year of entry to ODI matches: %s",cr->o.yoe);
```



```

printf("\n No. of matches played in ODI: %s",cr->o.nmp);

printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

printf("\n Strike rate in ODI: %s",cr->o.sr);

printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

cv++;

}

cr++;

}

}

void nmp2()

{

int cv=0;

cr=ptr;

printf("\n enter no. of matches played in ODI:");

scanf("%s",nm2);

for(i=0;i<n;i++)

{

```

```
x=strcmp(nm2,cr->name);

if(x==0)

{

printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to ODI matches: %s",cr->o.yoe);

printf("\n No. of matches played in ODI: %s",cr->o.nmp);

printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

printf("\n Strike rate in ODI: %s",cr->o.sr);

printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

cv++;

}

cr++;

}

}

void nrs2()

{
```

```
int cv=0;

cr=ptr;

printf("\n enter no. of runs scored in ODI:");

scanf("%s",nr2);

for(i=0;i<n;i++)

{

    x=strcmp(nr2,cr->name);

    if(x==0)

    {

        printf("\n Name: %s",cr->name);

        printf("\n Nation: %s",cr->nation);

        printf("\n year of entry to ODI matches: %s",cr->o.yoe);

        printf("\n No. of matches played in ODI: %s",cr->o.nmp);

        printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

        printf("\n Strike rate in ODI: %s",cr->o.sr);

        printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

        printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

        printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

        cv++;

    }

}
```

```
}

cr++;

}

}

void sr2()

{

int cv=0;

cr=ptr;

printf("\n enter strike rate in ODI:");

scanf("%s",s2);

for(i=0;i<n;i++)

{

x=strcmp(s2,cr->name);

if(x==0)

{

printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to ODI matches: %s",cr->o.yoe);

printf("\n No. of matches played in ODI: %s",cr->o.nmp);
```

```

printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

printf("\n Strike rate in ODI: %s",cr->o.sr);

printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

cv++;

}

cr++;

}

}

void nos2()

{

int cv=0;

cr=ptr;

printf("\n enter no. of sixes hit in ODI:");

scanf("%s",nsix2);

for(i=0;i<n;i++)

{

x=strcmp(nsix2,cr->name);

```

```
if(x==0)

{

printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to ODI matches: %s",cr->o.yoe);

printf("\n No. of matches played in ODI: %s",cr->o.nmp);

printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

printf("\n Strike rate in ODI: %s",cr->o.sr);

printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

cv++;

}

cr++;

}

}

void noc2()

{

int cv=0;
```

```
cr=ptr;

printf("\n enter no. of centuries scored in ODI:");

scanf("%s",ncen2);

for(i=0;i<n;i++)

{

    x=strcmp(ncen2,cr->name);

    if(x==0)

    {

        printf("\n Name: %s",cr->name);

        printf("\n Nation: %s",cr->nation);

        printf("\n year of entry to ODI matches: %s",cr->o.yoe);

        printf("\n No. of matches played in ODI: %s",cr->o.nmp);

        printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

        printf("\n Strike rate in ODI: %s",cr->o.sr);

        printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

        printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

        printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

        cv++;

    }

}
```

```
    cr++;

}

}

void nwt2()

{

    int cv=0;

    cr=ptr;

    printf("\n enter no. of wickets taken in ODI:");

    scanf("%s",nwkt2);

    for(i=0;i<n;i++)

    {

        x=strcmp(nwkt2,cr->name);

        if(x==0)

        {

            printf("\n Name: %s",cr->name);

            printf("\n Nation: %s",cr->nation);

            printf("\n year of entry to ODI matches: %s",cr->o.yoe);

            printf("\n No. of matches played in ODI: %s",cr->o.nmp);

            printf("\n No. of runs scored in ODI: %s",cr->o.nrs);
```



```
printf("\n Strike rate in ODI: %s",cr->o.sr);

printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

cv++;

}

cr++;

}

}

void t201()

{

printf("\n Menu for sorting:");

printf("\n 1.Name wise\n 2.Nation wise\n 3.Year wise\n 4.No. of matches
played wise");

printf("\n 5.No. of runs scored Wise\n 6.Strike rate wise\n 7.No. of Sixers
wise");

printf("\n 8.No. of centuries wise\n 9.No. of wickets wise");

printf("\n select option:");

scanf("%d",&sel);
```

```
switch(sel)

{

    case 1:name3();

    break;

    case 2:nation3();

    break;

    case 3:yoe3();

    break;

    case 4:nmp3();

    break;

    case 5:nrs3();

    break;

    case 6:sr3();

    break;

    case 7:nos3();

    break;

    case 8:noc3();

    break;

    case 9:nwt3();
```

```
break;

}

}

void name3()

{

    int cv=0;

    cr=ptr;

    printf("\n enter cricketer name:");

    scanf("%s",nam3);

    for(i=0;i<n;i++)

    {

        x=strcmp(nam3,cr->name);

        if(x==0)

        {

            printf("\n Name: %s",cr->name);

            printf("\n Nation: %s",cr->nation);

            printf("\n year of entry to t20 matches: %s",cr->tw.yoe);

            printf("\n No. of matches played in t20: %s",cr->tw.nmp);

            printf("\n No. of runs scored in t20: %s",cr->tw.nrs);
```

```

printf("\n Strike rate in t20: %s",cr->tw.sr);

printf("\n No. of sixes hit in t20: %s",cr->tw.nos);

printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

cv++;

}

cr++;

}

}

void nation3()

{

int cv=0;

cr=ptr;

printf("\n enter the nation he play:");

scanf("%s",nat3);

for(i=0;i<n;i++)

{

x=strcmp(nat3,cr->nation);

if(x==0)

```

```

{

printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to t20 matches: %s",cr->tw.yoe);

printf("\n No. of matches played in t20: %s",cr->tw.nmp);

printf("\n No. of runs scored in t20: %s",cr->tw.nrs);

printf("\n Strike rate in t20: %s",cr->tw.sr);

printf("\n No. of sixes hit in t20: %s",cr->tw.nos);

printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

cv++;

}

cr++;

}

}

void yoe3()

{

int cv=0;

cr=ptr;

```

```
printf("\n enter year of entry to t20:");

scanf("%s",y3);

for(i=0;i<n;i++)

{

    x=strcmp(y3,cr->name);

    if(x==0)

    {

        printf("\n Name: %s",cr->name);

        printf("\n Nation: %s",cr->nation);

        printf("\n year of entry to t20 matches: %s",cr->tw.yoe);

        printf("\n No. of matches played in t20: %s",cr->tw.nmp);

        printf("\n No. of runs scored in t20: %s",cr->tw.nrs);

        printf("\n Strike rate in t20: %s",cr->tw.sr);

        printf("\n No. of sixes hit in t20: %s",cr->tw.nos);

        printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

        printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

        cv++;

    }

    cr++;

}
```

```
}  
  
}  
  
void nmp3()  
  
{  
  
    int cv=0;  
  
    cr=ptr;  
  
    printf("\n enter no. of matches played in t20:");  
  
    scanf("%s",nm3);  
  
    for(i=0;i<n;i++)  
  
    {  
  
        x=strcmp(nm3,cr->name);  
  
        if(x==0)  
  
        {  
  
            printf("\n Name: %s",cr->name);  
  
            printf("\n Nation: %s",cr->nation);  
  
            printf("\n year of entry to t20 matches: %s",cr->tw.yoe);  
  
            printf("\n No. of matches played in t20: %s",cr->tw.nmp);  
  
            printf("\n No. of runs scored in t20: %s",cr->tw.nrs);  
  
            printf("\n Strike rate in t20: %s",cr->tw.sr);
```

```
printf("\n No. of sixes hit in t20: %s",cr->tw.nos);

printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

cv++;

}

cr++;

}

}

void nrs3()

{

int cv=0;

cr=ptr;

printf("\n enter no. of runs scored in t20:");

scanf("%s",nr3);

for(i=0;i<n;i++)

{

x=strcmp(nr3,cr->name);

if(x==0)

{
```



```
printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to t20 matches: %s",cr->tw.yoe);

printf("\n No. of matches played in t20: %s",cr->tw.nmp);

printf("\n No. of runs scored in t20: %s",cr->tw.nrs);

printf("\n Strike rate in t20: %s",cr->tw.sr);

printf("\n No. of sixes hit in t20: %s",cr->tw.nos);

printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

cv++;

}

cr++;

}

}

void sr3()

{

int cv=0;

cr=ptr;

printf("\n enter strike rate in t20:");
```

```
scanf("%s",s3);

for(i=0;i<n;i++)

{

    x=strcmp(s3,cr->name);

    if(x==0)

    {

        printf("\n Name: %s",cr->name);

        printf("\n Nation: %s",cr->nation);

        printf("\n year of entry to t20 matches: %s",cr->tw.yoe);

        printf("\n No. of matches played in t20: %s",cr->tw.nmp);

        printf("\n No. of runs scored in t20: %s",cr->tw.nrs);

        printf("\n Strike rate in t20: %s",cr->tw.sr);

        printf("\n No. of sixes hit in t20: %s",cr->tw.nos);

        printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

        printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

        cv++;

    }

    cr++;

}
```

```
}
```

```
void nos3()
```

```
{
```

```
int cv=0;
```

```
cr=ptr;
```

```
printf("\n enter no. of sixes hit in t20:");
```

```
scanf("%s",nsix3);
```

```
for(i=0;i<n;i++)
```

```
{
```

```
x=strcmp(nsix3,cr->name);
```

```
if(x==0)
```

```
{
```

```
printf("\n Name: %s",cr->name);
```

```
printf("\n Nation: %s",cr->nation);
```

```
printf("\n year of entry to t20 matches: %s",cr->tw.yoe);
```

```
printf("\n No. of matches played in t20: %s",cr->tw.nmp);
```

```
printf("\n No. of runs scored in t20: %s",cr->tw.nrs);
```

```
printf("\n Strike rate in t20: %s",cr->tw.sr);
```

```
printf("\n No. of sixes hit in t20: %s",cr->tw.nos);
```

```

printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

cv++;

}

cr++;

}

}

void noc3()

{

int cv=0;

cr=ptr;

printf("\n enter no. of centuries scored in t20:");

scanf("%s",ncen3);

for(i=0;i<n;i++)

{

x=strcmp(ncen3,cr->name);

if(x==0)

{

printf("\n Name: %s",cr->name);

```

```
printf("\n Nation: %s",cr->nation);

printf("\n year of entry to t20 matches: %s",cr->tw.yoe);

printf("\n No. of matches played in t20: %s",cr->tw.nmp);

printf("\n No. of runs scored in t20: %s",cr->tw.nrs);

printf("\n Strike rate in t20: %s",cr->tw.sr);

printf("\n No. of sixes hit in t20: %s",cr->tw.nos);

printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

cv++;

}

cr++;

}

}

void nwt3()

{

int cv=0;

cr=ptr;

printf("\n enter no. of wickets taken in t20:");

scanf("%s",nwkt3);
```

```
for(i=0;i<n;i++)  
  
{  
  
    x=strcmp(nwkt3,cr->name);  
  
    if(x==0)  
  
    {  
  
        printf("\n Name: %s",cr->name);  
  
        printf("\n Nation: %s",cr->nation);  
  
        printf("\n year of entry to t20 matches: %s",cr->tw.yoe);  
  
        printf("\n No. of matches played in t20: %s",cr->tw.nmp);  
  
        printf("\n No. of runs scored in t20: %s",cr->tw.nrs);  
  
        printf("\n Strike rate in t20: %s",cr->tw.sr);  
  
        printf("\n No. of sixes hit in t20: %s",cr->tw.nos);  
  
        printf("\n No. of centuries scored in t20: %s",cr->tw.noc);  
  
        printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);  
  
        cv++;  
  
    }  
  
    cr++;  
  
}  
  
}
```

```
void print()

{

    cr=ptr;

    for(i=0;i<n;i++)

    {

        printf("\n Details of cricketer %d are:",i+1);

        printf("\n Details of %s in test are:",cr->name);

        printf("\n Name: %s",cr->name);

        printf("\n Nation: %s",cr->nation);

        printf("\n year of entry to test matches: %s",cr->t.yoe);

        printf("\n No. of matches played in test: %s",cr->t.nmp);

        printf("\n No. of runs scored in test: %s",cr->t.nrs);

        printf("\n Strike rate in test: %s",cr->t.sr);

        printf("\n No. of sixes hit in test: %s",cr->t.nos);

        printf("\n No. of centuries scored in test: %s",cr->t.noc);

        printf("\n No. of wickets taken in test: %s",cr->t.nwt);

        printf("\n Details of %s in ODI are:",cr->name);

        printf("\n Name: %s",cr->name);

        printf("\n Nation: %s",cr->nation);
```

```
printf("\n year of entry to ODI matches: %s",cr->o.yoe);

printf("\n No. of matches played in ODI: %s",cr->o.nmp);

printf("\n No. of runs scored in ODI: %s",cr->o.nrs);

printf("\n Strike rate in ODI: %s",cr->o.sr);

printf("\n No. of sixes hit in ODI: %s",cr->o.nos);

printf("\n No. of centuries scored in ODI: %s",cr->o.noc);

printf("\n No. of wickets taken in ODI: %s",cr->o.nwt);

printf("\n Details of %s in t20 are:",cr->name);

printf("\n Name: %s",cr->name);

printf("\n Nation: %s",cr->nation);

printf("\n year of entry to t20 matches: %s",cr->tw.yoe);

printf("\n No. of matches played in t20: %s",cr->tw.nmp);

printf("\n No. of runs scored in t20: %s",cr->tw.nrs);

printf("\n Strike rate in t20: %s",cr->tw.sr);

printf("\n No. of sixes hit in t20: %s",cr->tw.nos);

printf("\n No. of centuries scored in t20: %s",cr->tw.noc);

printf("\n No. of wickets taken in t20: %s",cr->tw.nwt);

cr++;

}
```


}

RESULT:

enter the no. of cricketers: 2

MENU:

1.READ DATA

2.SORTING

3.SEARCHING

4.PRINT DATA

enter option:1

enter details of cricketers

enter details of cricketer 1

enter cricketer name:DavidWarner

enter the nation he play:Australia

enter details of DavidWarner in test series

enter the year he entered test matches:2006

enter the no. of matches played in test:84

enter the no. of runs scored in test:7244

enter the strike rate in test:151.42

enter no. of sixers hit in test:56

enter no. of centuries scored in test:24

enter no. of wickets taken in test:4

enter details of DavidWarner in ODI matches

enter the year he entered ODI matches:2009

enter the no. of matches played in ODI:106

enter the no. of runs scored in ODI:4343

enter the strike rate in ODI96.55

enter no. of sixers hit in ODI:60

enter no. of centuries scored in ODI:14

enter no. of wickets taken in ODI:2

enter details of DavidWarner in T20 matches

enter the year he entered T20 matches:2009

enter the no. of matches played in T20:12

enter the no. of runs scored in T20:692

enter the strike rate in T20:151.42

enter no. of sixers hit in T20:89

enter no. of centuries scored in T20:1

enter no. of wickets taken in T20:0

enter details of cricketer 2

enter cricketer name:MSDhoni

enter the nation he play:India

enter details of MSDhoni in test series

enter the year he entered test matches:2004

enter the no. of matches played in test:90

enter the no. of runs scored in test:4876

enter the strike rate in test:59.12

enter no. of sixers hit in test:78

enter no. of centuries scored in test:6

enter no. of wickets taken in test:0

enter details of MSDhoni in ODI matches

enter the year he entered ODI matches:2004

enter the no. of matches played in ODI:350

enter the no. of runs scored in ODI:10773

enter the strike rate in ODI87.56

enter no. of sixers hit in ODI:229

enter no. of centuries scored in ODI:10

enter no. of wickets taken in ODI:1

enter details of MSDhoni in T20 matches

enter the year he entered T20 matches:2003

enter the no. of matches played in T20:98

enter the no. of runs scored in T20:4432

enter the strike rate in T20137.85

enter no. of sixers hit in T20:209

enter no. of centuries scored in T20:1

enter no. of wickets taken in T20:0

enter y or Y to continue,enter n or N to exit:y

MENU:

1.READ DATA

2.SORTING

3.SEARCHING

4.PRINT DATA

enter option:2

MENU FOR SORTING:

1.Test wise

2.ODI wise

3.T20 wise

enter option:1

Menu for sorting:

1.Name wise

2.Nation wise

3.Year wise

4.No. of matches played wise

5.No. of runs scored Wise

6.Strike rate wise

7.No. of Sixers wise

8.No. of centuries wise

9.No. of wickets wise

select option:1

sorted list:

DavidWarner

MSDhoni

enter y or Y to continue,enter n or N to exit:y

MENU:

1.READ DATA

2.SORTING

3.SEARCHING

4.PRINT DATA

enter option:2

MENU FOR SORTING:

1.Test wise

2.ODI wise

3.T20 wise

enter option:2

Menu for sorting:

1.Name wise

2.Nation wise

3.Year wise

4.No. of matches played wise

5.No. of runs scored Wise

6.Strike rate wise

7.No. of Sixers wise

8.No. of centuries wise

9.No. of wickets wise

select option:2

sorted list:

Australia

India

enter y or Y to continue,enter n or N to exit:y

MENU:

1.READ DATA

2.SORTING

3.SEARCHING

4.PRINT DATA

enter option:3

MENU FOR SEARCHING:

- 1.Test wise
- 2.ODI wise
- 3.T20 wise1

enter option:

Menu for sorting:

- 1.Name wise
- 2.Nation wise
- 3.Year wise
- 4.No. of matches played wise
- 5.No. of runs scored Wise
- 6.Strike rate wise
- 7.No. of Sixers wise
- 8.No. of centuries wise
- 9.No. of wickets wise

select option:1

enter cricketer name:MSDhoni

Name: MSDhoni

Nation: India

year of entry to test matches: 2004

No. of matches played in test: 90

No. of runs scored in test: 4876

Strike rate in test: 59.12

No. of sixes hit in test: 78

No. of centuries scored in test: 6

No. of wickets taken in test: 0

enter y or Y to continue,enter n or N to exit:y

MENU:

1.READ DATA

2.SORTING

3.SEARCHING

4.PRINT DATA

enter option:4

Details of cricketer 1 are:

Details of DavidWarner in test are:

Name: DavidWarner

Nation: Australia

year of entry to test matches: 2006

No. of matches played in test: 84

No. of runs scored in test: 7244

Strike rate in test: 151.42

No. of sixes hit in test: 56

No. of centuries scored in test: 24

No. of wickets taken in test: 4

Details of DavidWarner in ODI are:

Name: DavidWarner

Nation: Australia

year of entry to ODI matches: 2009

No. of matches played in ODI: 106

No. of runs scored in ODI: 4343

Strike rate in ODI: 96.55

No. of sixes hit in ODI: 60

No. of centuries scored in ODI: 14

No. of wickets taken in ODI: 2

Details of David Warner in t20 are:

Name: David Warner

Nation: Australia

year of entry to t20 matches: 2009

No. of matches played in t20: 12

No. of runs scored in t20: 692

Strike rate in t20: 151.42

No. of sixes hit in t20: 89

No. of centuries scored in t20: 1

No. of wickets taken in t20: 0

Details of cricketer 2 are:

Details of MS Dhoni in test are:

Name: MS Dhoni

Nation: India

year of entry to test matches: 2004

No. of matches played in test: 90

No. of runs scored in test: 4876

Strike rate in test: 59.12

No. of sixes hit in test: 78

No. of centuries scored in test: 6

No. of wickets taken in test: 0

Details of MSDhoni in ODI are:

Name: MSDhoni

Nation: India

year of entry to ODI matches: 2004

No. of matches played in ODI: 350

No. of runs scored in ODI: 10773

Strike rate in ODI: 87.56

No. of sixes hit in ODI: 229

No. of centuries scored in ODI: 10

No. of wickets taken in ODI: 1

Details of MSDhoni in t20 are:

Name: MSDhoni

Nation: India

year of entry to t20 matches: 2003

No. of matches played in t20: 98

No. of runs scored in t20: 4432

Strike rate in t20: 137.85

No. of sixes hit in t20: 209

No. of centuries scored in t20: 1

No. of wickets taken in t20: 0

enter y or Y to continue,enter n or N to exit:n

Process exited after 827.6 seconds with return value 0

Press any key to continue . . .