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| **1) Program to read and display one cricket player details.**  **#include<stdio.h>**  **typedef struct cricket\_player**  **{ char player\_name[20];**  **char team\_name[20];**  **float average;**  **int highest\_score;**  **int centuries;**  **int ODI\_rank;**  **}PLR;**  **PLR read( PLR);**  **void display( PLR);**  **main( )**  **{**  **PLR p1;**  **p1=read(p1);**  **display(p1);**  **}**  **PLR read( PLR p1)**  **{**  **printf ( "\nEnter player name ");**  **scanf ("%s", p1. player\_name );**  **printf ( "\nEnter team name ");**  **scanf ("%s", p1. team\_name );**  **printf ( "\nEnter Batting average");**  **scanf ("%f",&p1.average);**  **printf ( "\nEnter highest score");**  **scanf ("%d", &p1. highest\_score );**  **printf ( "\nEnter Centuries ");**  **scanf ("%d", &p1. centuries );**  **printf ( "\nEnter ODI rank");**  **scanf ("%d", &p1. ODI\_rank);**  **return p1;**  **}**  **void display( PLR p1)**  **{**  **printf ( "Player Name: %s\n",p1.player\_name);**  **printf ( "Team Name: %s\n",p1.team\_name);**  **printf ( "Average: %f\n",p1.average);**  **printf ( "Highest score: %d\n",p1.highest\_score);**  **printf ( "Centuries: %d\n",p1.centuries);**  **printf ( "ODI rank: %d\n",p1.ODI\_rank);**  **}** |
| **2) Write a program to sort the structure using ODI\_rank.**  **#include<stdio.h>**  **typedef struct cricket\_player**  **{ char player\_name[20];**  **char team\_name[20];**  **float average;**  **int highest\_score;**  **int centuries;**  **int ODI\_rank;**  **}PLR;**  **PLR read( PLR);**  **void display( PLR);**  **void highest\_rank(PLR,PLR,PLR);**  **main()**  **{**  **PLR p1,p2,p3;**  **p1=read(p1);**  **p2=read(p2);**  **p3=read(p3);**  **display(p1);**  **display(p2);**  **display(p3);**  **printf("Details of the players who scored Highest rank\n");**  **highest\_rank(p1,p2,p3);**  **}**  **PLR read( PLR p1)**  **{**  **printf ( "\nEnter player name ");**  **scanf ("%s", p1. player\_name );**  **printf ( "\nEnter team name ");**  **scanf ("%s", p1. team\_name );**  **printf ( "\nEnter Batting average");**  **scanf ("%f",&p1.average);**  **printf ( "\nEnter highest score");**  **scanf ("%d", &p1. highest\_score );**  **printf ( "\nEnter Centuries ");**  **scanf ("%d", &p1. centuries );**  **printf ( "\nEnter ODI rank");**  **scanf ("%d", &p1. ODI\_rank);**  **return p1;**  **}**  **void display( PLR p1)**  **{**  **printf ( "Player Name: %s\n",p1.player\_name);**  **printf ( "Team Name: %s\n",p1.team\_name);**  **printf ( "Average: %f\n",p1.average);**  **printf ( "Highest score: %d\n",p1.highest\_score);**  **printf ( "Centuries: %d\n",p1.centuries);**  **printf ( "ODI rank: %d\n",p1.ODI\_rank);**  **}**  **void highest\_rank(PLR p1,PLR p2,PLR p3)**  **{**  **if((p1.ODI\_rank>=p2.ODI\_rank)&&(p1.ODI\_rank>=p3.ODI\_rank))**  **display(p1);**  **else if(p2.ODI\_rank>=p3.ODI\_rank)**  **display(p2);**  **else**  **display(p3);**  **}** |
| **3) Program to read and display N number of cricket\_player details using array of structure.**  **#include<stdio.h>**  **typedef struct cricket\_player**  **{ char player\_name[20];**  **char team\_name[20];**  **float average;**  **int highest\_score;**  **int centuries;**  **int ODI\_rank;**  **}PLR;**  **PLR read(PLR p[],int n);**  **void display( PLR p[],int n);**  **void highest\_batting\_average(PLR p[],int n);**  **void sort\_by\_ODI\_rank(PLR p[],int n);**  **main( )**  **{**  **PLR p[11];**  **int n;**  **printf("Enter number of players:");**  **scanf("%d",&n);**  **read(p,n);**  **display(p,n);**  **highest\_batting\_average(p,n);**  **sort\_by\_ODI\_rank(p,n);**  **printf("Player details after sorting in ascending order based on the ODI\_rank\n");**  **display(p,n);**  **}**  **PLR read( PLR p[],int n)**  **{**  **int i;**  **for(i=0;i<n;i++)**  **{**  **printf ( "\nEnter player name ");**  **scanf ("%s", p[i]. player\_name );**  **printf ( "\nEnter team name ");**  **scanf ("%s", p[i]. team\_name );**  **printf ( "\nEnter Batting average");**  **scanf ("%f",&p[i].average);**  **printf ( "\nEnter highest score");**  **scanf ("%d", &p[i]. highest\_score );**  **printf ( "\nEnter Centuries ");**  **scanf ("%d", &p[i]. centuries );**  **printf ( "\nEnter ODI rank");**  **scanf ("%d", &p[i]. ODI\_rank);**  **}**  **}**  **void display( PLR p[],int n)**  **{**  **int i;**  **for(i=0;i<n;i++)**  **{**  **printf ( "Player Name: %s\n",p[i].player\_name);**  **printf ( "Team Name: %s\n",p[i].team\_name);**  **printf ( "Batting Average: %f\n",p[i].average);**  **printf ( "Highest score: %d\n",p[i].highest\_score);**  **printf ( "Centuries: %d\n",p[i].centuries);**  **printf ( "ODI rank: %d\n",p[i].ODI\_rank);**  **}**  **}**  **void highest\_batting\_average(PLR p[],int n)**  **{**  **int i,index=0;**  **float h;**  **h=p[0].average;**  **for(i=1;i<n;i++)**  **{**  **if(p[i].average>h)**  **{**  **h=p[i].average;**  **index=i;**  **}**  **}**  **printf("The player who is having highest batting average\n");**  **printf ( "Player Name: %s\n",p[index].player\_name);**  **printf ( "Team Name: %s\n",p[index].team\_name);**  **printf ( "Average: %f\n",p[index].average);**  **printf ( "Highest score: %d\n",p[index].highest\_score);**  **printf ( "Centuries: %d\n",p[index].centuries);**  **printf ( "ODI rank: %d\n",p[index].ODI\_rank);**  **}**  **void sort\_by\_ODI\_rank(PLR p[11], int n)**  **{**  **int i,j;**  **PLR swap;**  **for(i=0;i<n-1;i++)**  **{**  **for(j=0;j<n-i-1;j++)**  **{**  **if(p[j].ODI\_rank>p[j+1].ODI\_rank)**  **{**  **swap=p[j];**  **p[j]=p[j+1];**  **p[j+1]=swap;**  **}**  **}**  **}**  **}** |
| **4) Program to read and display cricket player details using nested structures.**  **#include<stdio.h>**  **struct achievements**  **{**  **int man\_of\_matches;**  **int man\_of\_series;**  **int no\_of\_centuries;**  **};**  **typedef struct cricket\_player**  **{**  **char player\_name[20];**  **char team\_name[20];**  **// structure within structure**  **int ODI\_rank;**  **struct achievements achieved;**  **}PLR;**  **PLR read(PLR p[],int n);**  **void display(PLR p[],int n);**  **main( )**  **{**  **PLR p[10];**  **int n;**  **printf("Enter n:");**  **scanf("%d",&n);**  **read(p,n);**  **display(p,n);**  **}**  **PLR read(PLR p[10],int n)**  **{**  **int i;**  **for(i=0;i<n;i++)**  **{**  **printf ( "\nEnter player name ");**  **scanf ("%s", p[i]. player\_name );**  **printf ( "\nEnter team name ");**  **scanf ("%s", p[i]. team\_name );**  **printf ( "\nEnter ODI rank");**  **scanf ("%d", &p[i]. ODI\_rank);**  **printf("Enter man of the matches");**  **scanf("%d",&p[i].achieved. man\_of\_matches);**  **printf("Enter man of the series");**  **scanf("%d",&p[i].achieved.man\_of\_series);**  **printf("Enter no of centuries");**  **scanf("%d",&p[i].achieved.no\_of\_centuries);**  **}**  **}**  **void display( PLR p[10],int n)**  **{**  **int i;**  **for(i=0;i<n;i++)**  **{**  **printf ( "Player Name: %s\n",p[i].player\_name);**  **printf ( "Team Name: %s\n",p[i].team\_name);**  **printf ( "ODI rank: %d\n",p[i].ODI\_rank);**  **printf ( "man\_0f\_the\_match: %d\n",p[i].achieved. man\_of\_matches);**  **printf("man\_of\_the\_series: %d\n",p[i].achieved.man\_of\_series);**  **printf("no\_of\_centuries:%d\n",p[i].achieved.no\_of\_centuries);**  **}**  **}** |