



Parshvanath Charitable Trust's
A. P. SHAH INSTITUTE OF TECHNOLOGY
(Approved by AICTE New Delhi & Govt. of Maharashtra, Affiliated to University of Mumbai)
(Religious Jain Minority)

Department of Humanities and Applied Science

Academic Year: 2023-24

Name of Student: Vedant Nagesh Terse

Semester: II

Student ID:23104195

Class / Branch: F.E ALL

Date of Performance: 27/03/2024

Subject: C Programming

Date of Submission: 27/03/2024

Name of Instructor: Prof. [Vandana Virbhadre](#)

Experiment No.19

Aim: Demonstration of Structure.

Problem statement: Write a C program to create array of structure to store the details of 100 students.

Student details are as follows: Roll number, name, marks of three subject (physics, chemistry and maths), calculate the total of marks and sort student data as per total in ascending order. Roll number, name, marks of three subject (physics, chemistry and maths), calculate the total of marks and sort student data as per total in ascending order.

PROGRAM:-

```
#include<stdio.h>
struct student
{
    char name[20];
    int rollno;
    int phy,chem,maths,total;
};
int main()
{
    struct student s[100],temp;
    int n,i,j;
    printf("Enter no.of students: ");
    scanf("%d",&n);
    for(i=0;i<n;i++)
    {
        printf("Enter details of student:%d>Name,Rollno:",i+1);
        scanf("%s %d",s[i].name,&s[i].rollno);
    }
    for(i=0;i<n;i++)
    {
        printf("\nEnter Marks of three subjects for Student-%d:Physics,Chemsitry,Maths\n",i+1);
        scanf("%d %d %d",&s[i].phy,&s[i].chem,&s[i].maths);
        s[i].total=s[i].phy+s[i].chem+s[i].maths;
        printf("Total marks are %d",s[i].total);
    }
    for(i=0;i<n;i++)
    {
        for(j=0;j<n-1;j++)
        {
            if(s[j].total<s[j+1].total)
            {
                temp=s[j];
                s[j]=s[j+1];
                s[j+1]=temp;
            }
        }
    }
    printf("\n**Student Details*\n\n");
    printf("Rollno\tName\tPhysics\tChemistry\tMaths\tTotal\n");
    printf("\n\n");
    for(i=0;i<n;i++)
    {printf("%d\t%s\t%d\t%d\t%d\t%d\n",s[i].rollno,s[i].name,s[i].phy,s[i].chem,s[i].maths,s[i].total);}
    return 0;
}
```

OUTPUT:-

```
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~/Desktop/G475/EXp19$ gcc EXp19.c
apsit@apsit-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~/Desktop/G475/EXp19$ ./a.out
Enter no.of students: 2
Enter details of student:1>Name,Rollno: vedant
475
Enter details of student:2>Name,Rollno: sudesh
420

Enter Marks of three subjects for Student-1:Physics,Chemsitry,Maths
20 30 25
Total marks are 75
Enter Marks of three subjects for Student-2:Physics,Chemsitry,Maths
19 16 35
Total marks are 70
**Student Details*

Rollno   Name      Physics  Chemistry  Maths    Total
-
475      vedant    20       30         25       75
420      sudesh    19       16         35       70
```