

Institute of Computer Technology
B. Tech Computer Science and Engineering
Subject: DS (2CSE302)

PRACTICAL-9

AIM: - Implement the scenario based on structure.

1. Nirali is working in admin department of “Upadhyay International School”. She wants to generate the result for students, but before that she needs to add details in software as per following. Kindly refer the scenario and provide appropriate solution for it in c. (Note: Use nested structure for the marks as well as define structure variables using array only).

Enter number of Students:

2

Enter the number of subjects for each student

3

Enter Details for student-1

Enter the Enrollment Number:

123

Enter the Name:

Nikhil

Enter the Subject-1 Marks:

23

Enter the Subject-2 Marks:

45

Enter the Subject-3 Marks:

34

Enter Details for student-2

Enter the Enrollment Number:

567

Enter the Name:

Rohan

Enter the Subject-1 Marks:

22

Enter the Subject-2 Marks:

32

Enter the Subject-3 Marks:

12

Student-1 Details:

Enroll_No:123

Name:Nikhil

Subject-1 Marks:23

Subject-2 Marks:45

Subject-3 Marks:34

Student-2 Details:

Enroll_No:567

Name:Rohan

Subject-1 Marks:22

Subject-2 Marks:32

Subject-3 Marks:12

SOLUTION

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

```
struct Subject
```

```
{  
    int marks ;  
};
```

```
struct Student
```

```
{  
    struct Subject struct_subject[5];  
    char name[20];  
    int enroll_no;  
};
```

```
int main()
```

```
{  
    int numstud , numsub , i , j;  
    struct Student yash[10];  
  
    printf("\nEnter number of Students: ");  
    scanf("%d",&numstud);  
    printf("\nEnter number of subjects for each student: ");  
    scanf("%d",&numsub);  
  
    for(i=0 ; i<numstud ; ++i)  
    {  
        printf("\nEnter Details for Student - %d",i+1);  
        printf("\nEnter the Enrollment No: ");  
        scanf("%d",&yash[i].enroll_no);  
        printf("\nEnter the Name: ");  
        scanf("%s",yash[i].name);  
    }  
}
```

```

        for(j=0 ; j<numsub ; ++j)
        {
            printf("Enter the Subject-%d marks : ",j+1);
            scanf("%d",&yash[i].struct_subject[j].marks);
        }
    }
    printf("\n\n-----| STUDENT DETIALS |-----");
    for(i=0 ; i<numstud ; ++i)
    {
        printf("\nStudent %d",i+1);
        printf("\nEnrollment No : %d",yash[i].enroll_no);
        printf("\nName : %s",yash[i].name);
        for(j=0 ; j<numsub ; ++j)
        {
            printf("\nSubject %d marks : %d",j+1,yash[i].struct_subject[j].marks);
        }
        printf("\n");
    }
    return 0;
}

```

OUTPUT

```

CentOS 8 64-bit - VMware Workstation
File Edit View Search Terminal Help
[yash@localhost Prac9]$ gedit p9.c
[yash@localhost Prac9]$ gcc p9.c -o p9
[yash@localhost Prac9]$ ./p9

Enter number of Students: 2

Enter number of subjects for each student: 3

Enter Details for Student - 1
Enter the Enrollment No: 123

Enter the Name: Nikhil
Enter the Subject-1 marks : 23
Enter the Subject-2 marks : 45
Enter the Subject-3 marks : 34

Enter Details for Student - 2
Enter the Enrollment No: 567

Enter the Name: Rohan
Enter the Subject-1 marks : 22
Enter the Subject-2 marks : 32
Enter the Subject-3 marks : 12

-----| STUDENT DETIALS |-----
Student 1
Enrollment No : 123
Name : Nikhil
Subject 1 marks : 23
Subject 2 marks : 45
Subject 3 marks : 34

Student 2
Enrollment No : 567
Name : Rohan
Subject 1 marks : 22
Subject 2 marks : 32
Subject 3 marks : 12
[yash@localhost Prac9]$

```