Date:2023-01-18

Aim:

S.No: 46

Write a program to print student details using **nested structures**.

The structure student contains the fields regdno, name and date. Date is the nested structure and it contains the fields day, month and year.

At the time of execution, the program should print the following messages one by one on the console as:

```
Enter student number :
Enter student name :
Enter date of joining:
```

For example, if the user gives the **input** as:

```
Enter student number : 1002
Enter student name : Saraswathi
Enter date of joining: 31 01 2019
```

then the program should print the result as:

```
The student details are :
Number: 1002
Name : Saraswathi
Date of joining: 31-1-2019
```

Note - 2: Write the functions read() and display() in NestedStructureFunctions.c

Source Code:

NestedStructureMain.c

```
#include <stdio.h>
struct student {
   int regdno;
   char name[30];
   struct date {
      int day;
      int month;
      int year;
   }doj;
};
#include "NestedStructureFunctions.c"
void main() {
   int i;
   struct student s;
   read(&s);
   printf("The student details are : \n");
   display(s);
}
```

NestedStructureFunctions.c

```
void read(struct student*s);
void display(struct student p);
void read(struct student*s)
{
    printf("Enter student number : ");
    scanf("%d",&s->regdno);
    printf("Enter student name : ");
    scanf("%s",s->name);
    printf("Enter date of joining : ");
    scanf("%d%d%d",&s->doj.day,&s->doj.month,&s->doj.year);
}
void display(struct student s)
{
    printf("Number : %d\n",s.regdno);
    printf("Name : %s\n",s.name);
    printf("Date of joining : %d-%d-%d\n",s.doj.day,s.doj.month,s.doj.year);
}
```

Execution Results - All test cases have succeeded!

```
Test Case - 1

User Output

Enter student number : 1001

Enter student name : Sachin

Enter date of joining : 12 06 1987

The student details are :

Number : 1001

Name : Sachin

Date of joining : 12-6-1987
```

```
Test Case - 2

User Output

Enter student number : 2001

Enter student name : Lakshmi

Enter date of joining : 15 08 2018

The student details are :

Number : 2001

Name : Lakshmi

Date of joining : 15-8-2018
```