2022-2026-CSE-C

### Aim:

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.

Exp. Name: Write a C program to implement a Nested Structure to store and display the

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 - 1:** Do use the **printf()** function with a **newline** character (\\n\).

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
```