

Institute of Computer And Technology
B.Tech – CSE(BDA)

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Sem:- 2

Sub: - ESFP-II

Enrollment No.:- 23162121027

Prac:- 1

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Q.1.

DMA: Definition: Student Information System.

Lords Universal College, which is situated at Mumbai. College authority decides to come up with a new idea for handling examination section seating arrangements for different-different courses. For that, college wants separate records, those who one is giving a remedial exam for the semester-II. For that, the college wants to take all the information related to students like rollno, name, class, semester, subject, and exam fee. So, whenever is required to search records by id, or by name or by class, he can search randomly and make a proper seating arrangement as per the rules of the examination committee.

So, for the fulfilment of the above said requirement make a proper DMA program using C.

Algorithm:-

1. Start
2. Create a structure for entering data about students.
3. Program a code with the use of DMA.
4. Collect the Data from the user.
5. Show the data using printf.
6. Select a person's name.
7. Show the data of the person's name.
8. End

Code:-

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

```

#include <stdlib.h>
#include <conio.h>
#include <string.h>

struct student
{
    int id;
    char name[10];
    int age;
};

int main()
{
    int size,i;

    struct student*p;

    printf("No. of students:-\n");
    scanf("%d",&size);

    p=(struct student*)malloc(size*(sizeof(struct student)));

    for (i=0;i<size;i++)
    {
        printf("\nEnter student no.%d's id,name,age:-\n",i+1);
        scanf("%d%s%d",&(p+i)->id,&(p+i)->name,&(p+i)->age);
    }
    for (i=0;i<size;i++)
    {
        printf("\nInfo of student no.%d:- %d %s %d\n",i+1,(p+i)->id,(p+i)->name,(p+i)->age);
    }

    char search_name[10];

    printf("\nEnter student name:\t");
    scanf("%s",search_name);

    for(i=0;i<size;i++)
    {

```

```

        // if(search_name==(p+i)->name)
        if(strcmp((p+i)->name,search_name) == 0)
        {
            printf("\nInfo of student:- %d %s %d\n",(p+i)->id,(p+i)->name,(p+i)->age);
            return 1;
        }
        else
        {
            printf("\nname does not exist");
        }
    }

    return 0;
}

```

Output-

```

PS C:\Users\dwijd\OneDrive\Documents\collage practicals\ESFP-II> cd "c:\Users\dwijd\OneDrive\Documents\collage practicals\ESFP-II\practical_1\" ; if ($?) { g++ practical_1.C -o practical_1 } ; if ($?) { .\practical_1 }
No. of students:-
3

Enter student no.1's id,name,age:-
2005 Dwij 19

Enter student no.2's id,name,age:-
3005 Ender 32

Enter student no.3's id,name,age:-
4005 Jake 21

Info of student no.1:- 2005 Dwij 19

Info of student no.2:- 3005 Ender 32

Info of student no.3:- 4005 Jake 21

Enter student name:    Dwij

Info of student:- 2005 Dwij 19
PS C:\Users\dwijd\OneDrive\Documents\collage practicals\ESFP-II\practical_1>

```

Photo of code:-

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <conio.h>
4 #include <string.h>
5
6 struct student
7 {
8     int id;
9     char name[10];
10    int age;
11 }e;
12 int main()
13 {
14     int size,i;
15
16     struct student*p;
17
18     printf("No. of students:-\n");
19     scanf("%d",&size);
20
21     p=(struct student*)malloc(size*(sizeof(struct student)));
22
23     for (i=0;i<size;i++)
24     {
25         printf("\nEnter student no.%d's id,name,age:-\n",i+1);
26         scanf("%d%s%d",&(p+i)->id,&(p+i)->name,&(p+i)->age);
27     }
28     for (i=0;i<size;i++)
29     {
30         printf("\nInfo of student no.%d:- %d %s %d\n",i+1,(p+i)->id,(p+i)->name,(p+i)->age);
31     }
32
33     char search_name[10];
34
35     printf("\nEnter student name:\t");
36     scanf("%s",search_name);
37
38
39
40     for(i=0;i<size;i++)
41     {
42
43         // if(search_name==(p+i)->name)
44         if(strcmp((p+i)->name,search_name) == 0)
45         {
46             printf("\nInfo of student:- %d %s %d\n", (p+i)->id, (p+i)->name, (p+i)->age);
47             return 1;
48         }
49         else
50         {
51             printf("\nname does not exist");
52         }
53     }
54
55     return 0;
56 }
```