

## Students database

### 1.research:

In most of the schools/colleges don't have the properly maintained data of students, this data can help them and students in emergency condition. so a properly maintained database can help them to handle these situations.

### 2.ideate:

To maintain a database for schools and colleges we have created a program which can accept the students information and display it when it is needed.

### 3.analysis:

The main objective of this program is to store basic information of students (name, roll number, and area) using **structures** in C and allow the user to search for a student's details using their roll number.

It demonstrates the use of **arrays of structures**, **user input handling**, and **linear search**.

### 4.buid:

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

```
struct student {  
    int roll_no;  
    char name[50];  
    char area[50];  
};
```

```
int main() {  
    struct student student1[100];  
    int n, i, j, found = 0;  
  
    printf("enter no.of students in class:");  
    scanf("%d", &n);
```

```

for (i = 0; i < n; i++) {
    printf("name of student:");
    scanf("%s", student1[i].name);

    printf("roll no of student:");
    scanf("%d", &student1[i].roll_no);

    printf("area from where he belong:");
    scanf("%s", student1[i].area);

    printf("\n");
}

printf("-----\n");
printf("\nenter roll no of student:");
scanf("%d", &j);

for (i = 0; i < n; i++) {
    if (j == student1[i].roll_no) {
        printf("student name is %s\n", student1[i].name);
        printf("student belongs to %s\n", student1[i].area);
        found = 1;
        break;
    }
}

if (!found) {
    printf("student does not exist in database");
}

return 0;
}

```

## 5.testing:

Case-1:

enter no.of students in class:2

name of student:ritesh

roll no of student:2

area from where he belong:satara

name of student:atharva

roll no of student:

4

area from where he belong:solapur

---

enter roll no of student:4

student name is atharva

student belongs to solapur

==== Code Execution Successful ===

Case-2:

enter no.of students in class:1

name of student:jack

roll no of student:35

area from where he belong:oggypur

---

enter roll no of student:23

student does not exist in database

==== Code Execution Successful ===