

N.B.K.R Institute of Science and Technology

Student

Management System



Team Members

CSE -C

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Introduction

Student Management System C program uses structured programming concepts, to provide an organized and efficient way to handle student data within a console-based environment.

```

1 #include <stdio.h>
2 #include <stdlib.h>
3 #include <string.h>
4
5 struct Student {
6     char name[50];
7     char rollNumber[20];
8     int age;
9     float marks;
10    int year;
11    int semester;
12 };
13
14 struct Student students[100];
15 int count = 0;
16
17 void addStudent() {
18     if (count >= 100) {
19         printf("Maximum student limit reached.\n");
20         return;
21     }
22     printf("Enter name: ");
23     scanf("%s", students[count].name);
24     printf("Enter roll number: ");
25     scanf("%s", students[count].rollNumber);
26     printf("Enter age: ");
27     scanf("%d", &students[count].age);
28     printf("Enter marks: ");
29     scanf("%f", &students[count].marks);
30     printf("Enter year (1-4): ");
31     scanf("%d", &students[count].year);
32     printf("Enter semester (1 or 2): ");
33     scanf("%d", &students[count].semester);
34     count++;
35     printf("Student added successfully.\n");
36 }
37
38 void displayStudents() {
39     if (count == 0) {
40         printf("No students to display.\n");
41         return;
42     }
43
44     printf("\n+-----+-----+-----+-----+-----+-----+");
45     printf("| S.No | Name | Roll Number | Age | Marks | Year | Semester | \n");
46     printf("+-----+-----+-----+-----+-----+-----+");
47
48     for (int i = 0; i < count; i++) {
49         printf("| %4d | %-20s | %-16s | %3d | %-6.2f | %4d | %9d | \n",
50             i + 1,
51             students[i].name,
52             students[i].rollNumber,
53             students[i].age,
54             students[i].marks,
55             students[i].year,
56             students[i].semester
57         );
58     }
59     printf("+-----+-----+-----+-----+-----+-----+");
60 }

```

```

62 void searchStudent() {
63     char roll[20];
64     printf("Enter roll number to search: ");
65     scanf("%s", roll);
66     for (int i = 0; i < count; i++) {
67         if (strcmp(students[i].rollNumber, roll) == 0) {
68             printf("\nStudent Found:\n");
69             printf("Name : %s\n", students[i].name);
70             printf("Roll Number: %s\n", students[i].rollNumber);
71             printf("Age : %d\n", students[i].age);
72             printf("Marks : %.2f\n", students[i].marks);
73             printf("Year : %d\n", students[i].year);
74             printf("Semester : %d\n", students[i].semester);
75             return;
76         }
77     }
78     printf("Student not found.\n");
79 }
80
81 void deleteStudent() {
82     char roll[20];
83     printf("Enter roll number to delete: ");
84     scanf("%s", roll);
85     for (int i = 0; i < count; i++) {
86         if (strcmp(students[i].rollNumber, roll) == 0) {
87             for (int j = i; j < count - 1; j++) {
88                 students[j] = students[j + 1];
89             }
90             count--;
91             printf("Student deleted successfully.\n");
92             for (int j = i; j < count - 1; j++) {
93                 students[j] = students[j + 1];
94             }
95             count--;
96             printf("Student deleted successfully.\n");
97             return;
98         }
99     }
100    printf("Student not found.\n");
101 }
102
103 void updateStudent() {
104     char roll[20];
105     printf("Enter roll number to update: ");
106     scanf("%s", roll);
107     for (int i = 0; i < count; i++) {
108         if (strcmp(students[i].rollNumber, roll) == 0) {
109             printf("Enter new name: ");
110             scanf("%s", students[i].name);
111             printf("Enter new age: ");
112             scanf("%d", &students[i].age);
113             printf("Enter new marks: ");
114             scanf("%f", &students[i].marks);
115             printf("Enter new year (1-4): ");
116             scanf("%d", &students[i].year);
117             printf("Enter new semester (1 or 2): ");
118             scanf("%d", &students[i].semester);
119             printf("Student updated successfully.\n");
120             return;
121         }
122     }
123    printf("Student not found.\n");
124 }

```

```

121 int main() {
122     int choice;
123     while (1) {
124         printf("\nStudent Management System\n");
125         printf("1. Add Student\n");
126         printf("2. Display Students\n");
127         printf("3. Search Student\n");
128         printf("4. Delete Student\n");
129         printf("5. Update Student\n");
130         printf("6. Exit\n");
131         printf("Enter your choice: ");
132         scanf("%d", &choice);
133         while (getchar() != '\n'); // clear input buffer
134
135         switch (choice) {
136             case 1: addStudent(); break;
137             case 2: displayStudents(); break;
138             case 3: searchStudent(); break;
139             case 4: deleteStudent(); break;
140             case 5: updateStudent(); break;
141             case 6:
142                 printf("Exiting... Thank you!\n");
143                 exit(0);
144             default: printf("Invalid choice. Try again.\n");
145         }
146     }
147     return 0;
148 }

```

C code for Student management system

Sample output:

Student Management System

1. Add Student
2. Display Students
3. Search Student
4. Delete Student
5. Update Student
6. Exit

Enter your choice: 1

Enter name: Daniel

Enter roll number: 24hi108p

Enter age: 18

Enter marks: 78.70

Enter year (1-4): 1

Enter semester (1 or 2): 2

Student added successfully.

Student Management System

1. Add Student
2. Display Students
3. Search Student
4. Delete Student
5. Update Student
6. Exit

Enter your choice: |

The background is a light beige color with a textured, slightly mottled appearance. There are several pieces of torn paper and tape scattered around. A piece of brown, fibrous material is torn at the top left. A piece of white paper is torn at the bottom right. A piece of yellowish tape is visible at the bottom left.

Code link:

<https://onlinegdb.com/l9ss7cxrm>



Thank
You