

Student Grading System - C Program

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#include <stdio.h>

struct Student {
    char name[50];
    int rollNumber;
    struct {
        char subject[20];
        float marks;
    } subjects[5];
    char grade;
};

int main() {
    int n;

    printf("Enter the number of students: ");
    scanf("%d", &n);

    struct Student students[n];

    for (int i = 0; i < n; i++) {
        printf("Enter student %d's name: ", i + 1);
        scanf("%s", students[i].name);

        printf("Enter student %d's roll number: ", i + 1);
        scanf("%d", &students[i].rollNumber);

        float totalMarks = 0;
        for (int j = 0; j < 5; j++) {
            printf("Enter student %d's subject %d name: ", i + 1, j + 1);
            scanf("%s", students[i].subjects[j].subject);

            printf("Enter student %d's subject %d marks (out of 100): ", i + 1, j + 1);
            scanf("%f", &students[i].subjects[j].marks);

            totalMarks += students[i].subjects[j].marks;
        }

        float averageMarks = totalMarks / 5;
        if (averageMarks >= 90) {
            students[i].grade = 'A';
        } else if (averageMarks >= 80) {
            students[i].grade = 'B';
        } else if (averageMarks >= 70) {
            students[i].grade = 'C';
        } else if (averageMarks >= 60) {
            students[i].grade = 'D';
        } else {
            students[i].grade = 'F';
        }
    }
}
```

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}

printf("\nStudent Information with Grades:\n");
for (int i = 0; i < n; i++) {
    printf("Name: %s\n", students[i].name);
    printf("Roll Number: %d\n", students[i].rollNumber);

    printf("Subjects and Marks:\n");
    for (int j = 0; j < 5; j++) {
        printf("%s: %.2f\n", students[i].subjects[j].subject,
students[i].subjects[j].marks);
    }

    printf("Average Marks: %.2f\n", (students[i].subjects[0].marks +
students[i].subjects[1].marks + students[i].subjects[2].marks +
students[i].subjects[3].marks + students[i].subjects[4].marks) / 5);
    printf("Grade: %c\n\n", students[i].grade);
}

return 0;
}

```