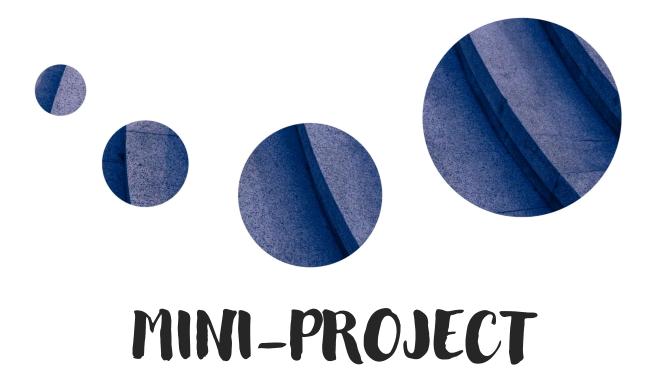
MINI PROJECT RECORD

RUPAN NAG

CSE-GT Q1

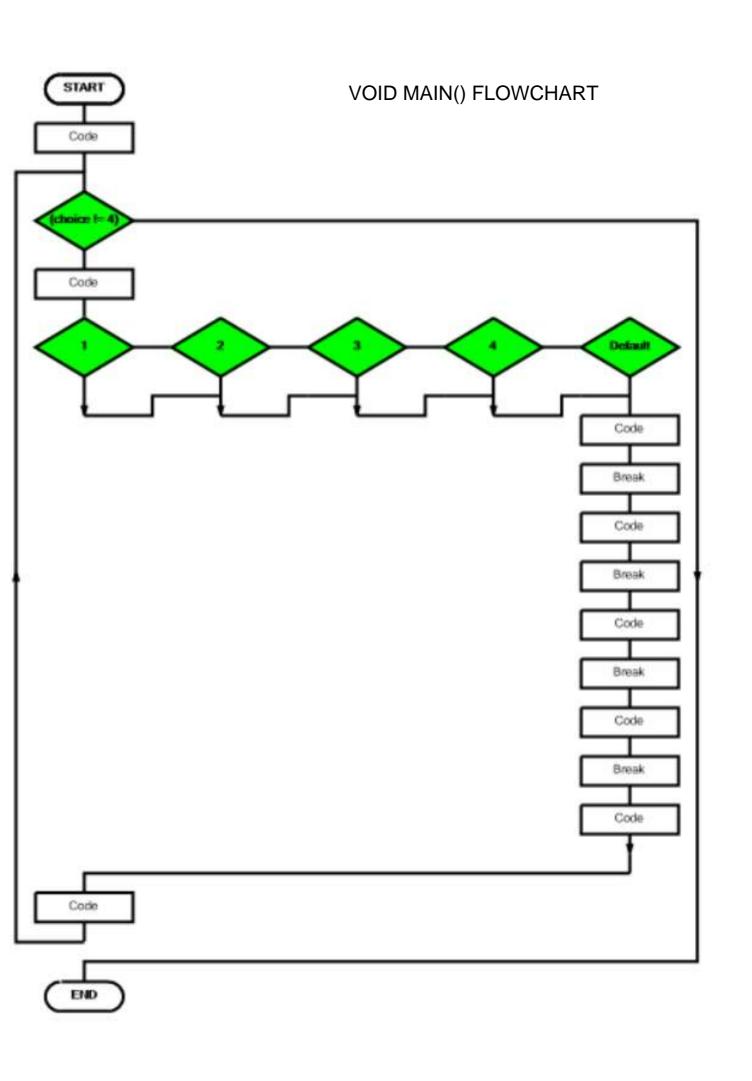
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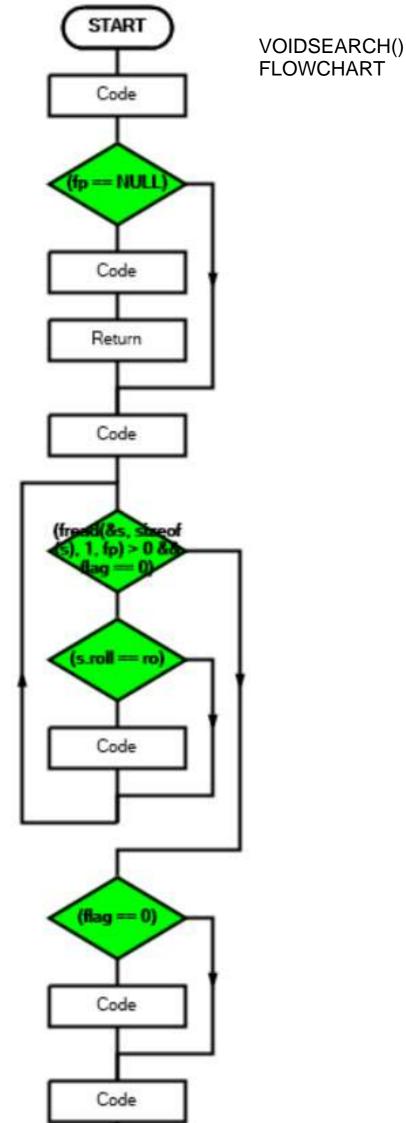
Ct-4



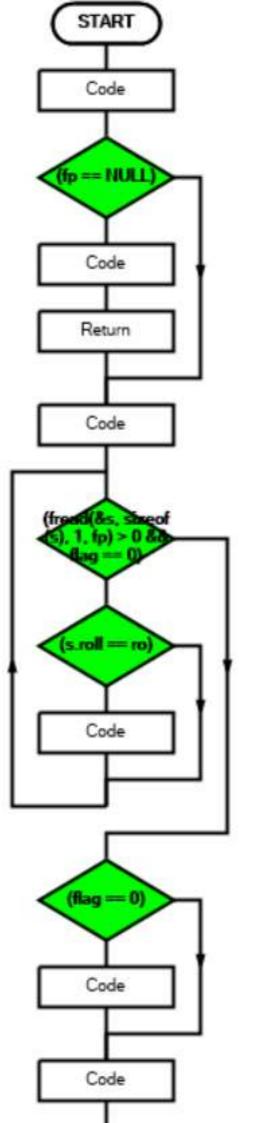
STUDENT MANAGEMENT SYSTEM.

- Main objective- to make a data management system using file input output.
- Using this program we can insert, update, search student records.
- Record includes name, roll number, section, and obtained marks.
- Usage of data structure is done to store characters and numbers together.
- Files are used to permanently store the data.
- We can search for the saved records using fseek function,
- A flag variable is also used to get a true/false condition.
- Exit option is also made to quit the program.





VOID UPDATE()



```
#include <stdio.h>
1
2
     #include <stdlib.h>
     #include <conio.h>
5
     void insert();
 6
     void search();
     void update(); // declaration of function
 8
9
     struct student // structure
10
11
        int roll;
12
        char sec[5];
13
        char name[20];
14
         int marks;
15
     struct student s; // s is a variable of structure student
16
17
     void main()
18
19
        int choice;
20
        while (choice != 4)
21
            22
23
            printf("\t\t\t###############################\n");
            printf("\t\t\t\t\t\WELCOME TO SRM STUDENT DATABASE'\n");
2.4
            printf("\t\t\t\t#############################\n\n\n");
25
            printf("\t\t\tAVAILABLE OPTIONS:\n\n");
2.6
27
            printf("\t\t\t\t1: Insert Student record\n");
            printf("\t\t\t\\t2: Search Student record\n");
28
            29
            printf("\t\t\t\t4: Exit\n\n");
30
            printf("Enter Your Choice : ");
31
32
            scanf("%d", &choice);
33
            switch (choice)
34
3.5
            case 1:
36
                system("cls");
37
                 insert(); // calling the function
38
                break;
39
            case 2:
40
                system("cls");
41
                 search();
42
                break:
4.3
            case 3:
                system("cls");
44
45
                update();
46
                break;
47
            case 4:
48
                exit(1):
49
                break:
50
            default:
51
52
                printf("\n\t\t!!! You Entered The Wrong Choice !!!\n\n");
53
                 // it is a menu driven program
54
5.5
            getchar(); // again go to the loop
56
57
     void insert() // declaration
58
59
60
        FILE *fp;
         //(*fp)points to the file directory
61
62
        // file created/mod in buffer/secondary memory. functions done in primary memory
6.3
         fp = fopen("stu.txt", "a+");
64
65
66
        //file opened in append mode(a+) to read and write in buffer
67
        printf("\n\n\t\t^^^ENTER NEW STUDENT DATA^^^");
68
        printf("\n\n\t\tEnter Student Roll Number : ");
69
70
         scanf("%d", &s.roll);//the roll segment to the data structure is getting stored by input
71
         fflush (stdin);
72
        // {\tt dump \ whatever \ is \ stored \ in \ buffer \ into \ file \ and \ clear \ the \ buffer}
7.3
74
75
        printf("\n\t\tEnter Student Name : ");
76
        gets(s.name);
        printf("\n\t\tEnter Student Section : ");
77
78
        gets(s.sec);
79
        printf("\n\t\tEnter Student Total Marks : ");
80
        scanf("%d", &s.marks);
        fwrite(&s, sizeof(s), 1, fp);
81
82
         // use to store data taken from user
8.3
84
         // fwrite use to write in binary mode
```

```
86
 87
              printf("\n\n\tStudent Database Recorded Successfully !!!\n");
 88
 89
          fclose(fp);
 90
 91
          // close the file fp
 92
          // as soon as the file closes by the help of buffer(fp) data write in the 2nd memory from
      the 1st memory
 93
          printf("\n\t\tRecord Updated !!!\n\n");
 94
 95
 96
      void search()
 97
 98
          int ro, flag = 0;
 99
100
          //as soon flag value is 0 we go into the loop and if it is 1 we go outside the loop
          // ro is taken for roll no.
101
102
          FILE *fp;
103
          fp = fopen("stu.txt", "r");
104
105
106
          //(r), is use to open file in read mode
          if (fp == NULL) //no input given previously
107
108
109
              printf("\n\t\tError : File Does Not Exist !!! ");
110
111
112
          printf("\n\n\tEnter Student Roll No. Which You Want To Search : ");
113
          scanf("%d", &ro);
114
          while (fread(&s, sizeof(s), 1, fp) > 0 && flag == 0)
115
116
              if (s.roll == ro)
117
118
              // roo is the roll no. that user has entered
119
120
121
                  flaq = 1;
                  printf("\n\n\tSearch Successful And Student Records Is as follows");
122
                  printf("\nRoll No\t\tName of Student\t\tSection\t\tMarks\n");
123
124
                  printf("%d\t\t\s \t\ %s \t\n\n\n", s.roll, s.name, s.sec, s.marks);
125
126
127
          if (flag == 0)
128
129
              printf("\n\n\t\t!!! No Record Found !!!\n\n");
130
          fclose(fp);
131
132
133
      void update()
134
135
          int ro, flag = 0;
          FILE *fp;
136
137
          fp = fopen("stu.txt", "r+");
138
139
          // r+ is use to open file for reading and writing
140
          if (fp == NULL)
141
142
143
              printf("\n\t\tError : File Does Not Exist");
144
145
          printf("\n\n\tEnter Roll Number Of Students Whose Record You Want To Update :");
146
          scanf("%d", &ro);
printf("\n\n\t\t *** Previously Stored Record Of Given Roll No. ***\n\n");
147
148
          while (fread(&s, sizeof(s), 1, fp) > 0 && flag == 0)
149
150
151
              if (s.roll == ro)
152
153
                  flag = 1;
                  printf("\nRoll No\t\tName of Student\t\tSection\t\tMarks\n");
154
                  printf("%d\t\t\t%s \t\t %s \t\t%d\n", s.roll, s.name, s.sec, s.marks);
155
                  printf("\n\n\n\t\t** Now Enter The New Record Of The Student ***\n\n");
156
                  printf("\n\t\tUpdated Student Roll No.: ");
157
                  scanf("%d", &s.roll);
158
159
                  fflush (stdin);
160
                  printf("\n\t\tUpdated Student Name: ");
161
                  gets(s.name);
162
                  printf("\n\t\tUpdated Student Section: ");
163
                  gets(s.sec);
                  printf("\n\t\tUpdated Student Marks: ");
164
                  scanf("%d", &s.marks);
fseek(fp, -(long)sizeof(s), 1);
165
166
167
```

8.5

```
168
169
                    // fseek, it is a update function, minus is used to update file from beginning
                   fwrite(&s, sizeof(s), 1, fp);
printf("\n\n\t\tRecord Updated\n\n\n");
170
171
172
173
           if (flag == 0)
174
175
               printf("\n\t\tError : Something Went Wrong !!!\n\n");
176
177
178
179 }
           fclose(fp);
180
```





■ "C-\Users\rupan\OneDrive\Documents\c practice vscode\miniproject.exe"		×
Enter Student Roll No. Which You Want To Search : 1		
Search Sucessful And Student Records Is as follows Roll No Name of Student Section Marks I rupan nag q1 10		
rupan nag(RA2111051010052)		
WELCOME TO SRM STUDENT DATABASE		
AVAILABLE OPTIONS:		
1: Insert Student record 2: Search Student record 3: Update Student record 4: Exit		
Enter Your Choice :		

