

main.c

```
1 #include <stdio.h>
2 int main()
3 {
4     int n,i, e1=0, e2=0, e3=0, x, p,min,l=0;
5     struct student
6     {
7         int elec;
8         char name[20];
9     }ar[100];
10    printf("Enter the number of the students\n");
11    scanf("%d",&n);
12    printf("Choice of elective:\n1-IoT,2-Advanced Java and J2EE,3-Advanced data structures\n");
13    for(i=0;i<n;i++)
14    {
15        printf("Enter %d student's name and the choice of elective\n",i+1);
16        scanf("%s%d",ar[i].name,&ar[i].elec);
17        if(ar[i].elec==1)
18            e1++;
19        if(ar[i].elec==2)
20            e2++;
21        if(ar[i].elec==3)
22            e3++;
23    }
24    if(e1<=e2&&e1<=e3)
25        min=e1;
26    if(e2<=e1&&e2<=e3)
27        min=e2;
28    if(e3<=e2&&e3<=e1)
29        min=e3;
```



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30 printf("Enter the course number\n");
31 scanf("%d",&x);
32 printf("Names of the students who have opted for %d:\n",x);
33 for(i=0;i<n;i++)
34 {
35     if(ar[i].elec==x)
36         printf("%s\n",ar[i].name);
37 }
38 printf("Total number of students in 1st course is %d\n",e1);
39 printf("Total number of students in 2nd course is %d\n",e2);
40 printf("Total number of students in 3rd course is %d\n",e3);
41 if(e1<3&&e2>=3&&e3>=3)
42 {
43     printf("Course 1 will not be floated. Plaese select from the other 2 courses\n");
44     p=1;
45     l=1;
46 }
47 if(e2<3&&e1>=3&&e3>=3)
48 {
49     printf("Course 2 will not be floated. Plaese select from the other 2 courses\n");
50     p=2;
51     l=1;
52 }
53 if(e3<3&&e1>=3&&e2>=3)
54 {
55     printf("Course 3 will not be floated. Plaese select from the other 2 courses\n");
56     p=3;
57     l=1;
58 }
59 if(l==0)
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58 }
59 if(l==0)
60 {
61     if(min==e1)
62     {
63         printf("Please select from course 2 and 3\n");
64         p=1;
65     }
66     else if(min==e2)
67     {
68         printf("Please select from course 1 and 3\n");
69         p=2;
70     }
71     else if(min==e3)
72     {
73         printf("Please select from course 1 and 2\n");
74         p=3;
75     }
76 }
77 if(p==1)
78 {
79     for(i=0;i<n;i++)
80     {
81         if(ar[i].elec==1)
82         {
83             printf("Enter a different course. Name:%s\n",ar[i].name);
84             scanf("%d",&ar[i].elec);
85         }
86     }
87     else if(p==2)
```

```
86 else if(p==2)
87 {
88     for(i=0;i<n;i++)
89     {
90         if(ar[i].elec==2)
91         {
92             printf("Enter a different course. Name:%s\n",ar[i].name);
93             scanf("%d",&ar[i].elec);
94         }
95     }
96 else if(p==3)
97 {
98     for(i=0;i<n;i++)
99     {
100         if(ar[i].elec==3)
101         {
102             printf("Enter a different course. Name:%s\n",ar[i].name);
103             scanf("%d",&ar[i].elec);
104         }
105     }
106 printf("Students in 1 elective\n");
107 for(i=0;i<n;i++)
108 {
109     if(ar[i].elec==1)
110     printf("%s\n",ar[i].name);
111 }
112 printf("Students in 2 elective\n");
113 for(i=0;i<n;i++)
114 {
115     if(ar[i].elec==2)
116     printf("%s\n",ar[i].name);
117 }
```

```
94     }  
95     else if(p==3)  
96     {  
97         for(i=0;i<n;i++)  
98         {  
99             if(ar[i].elec==3)  
100             {  
101                 printf("Enter a different course. Name:%s\n",ar[i].name);  
102                 scanf("%d",&ar[i].elec);  
103             }  
104         }  
105         printf("Students in 1 elective\n");  
106         for(i=0;i<n;i++)  
107         {  
108             if(ar[i].elec==1)  
109                 printf("%s\n",ar[i].name);  
110         }  
111         printf("Students in 2 elective\n");  
112         for(i=0;i<n;i++)  
113         {  
114             if(ar[i].elec==2)  
115                 printf("%s\n",ar[i].name);  
116         }  
117         printf("Students in 3 elective\n");  
118         for(i=0;i<n;i++)  
119         {  
120             if(ar[i].elec==3)  
121                 printf("%s\n",ar[i].name);  
122         }  
123         return 0;  
124     }
```



```
Enter the number of the students
10
Choice of elective:
1-IoT,2-Advanced Java and J2EE,3-Advanced data structures
Enter 1 student's name and the choice of elective
aaa
1
Enter 2 student's name and the choice of elective
bbb
1
Enter 3 student's name and the choice of elective
ccc
1
Enter 4 student's name and the choice of elective
ddd
1
Enter 5 student's name and the choice of elective
eee
2
Enter 6 student's name and the choice of elective
fff
2
Enter 7 student's name and the choice of elective
ggg
2
Enter 8 student's name and the choice of elective
hhh
2
Enter 9 student's name and the choice of elective
```

```
Enter 9 student's name and the choice of elective
iii
3
Enter 10 student's name and the choice of elective
jjj
3
Enter the course number
1
Names of the students who have opted for 1:
aaa
bbb
ccc
ddd
Total number of students in 1st course is 4
Total number of students in 2nd course is 4
Total number of students in 3rd course is 2
Course 3 will not be floated. Plaese select from the other 2 courses
Enter a different course. Name:iii
1
Enter a different course. Name:jjj
2
Students in 1 elective
aaa
bbb
ccc
ddd
iii
Students in 2 elective
eee
```

```
aaa
bbb
ccc
ddd
Total number of students in 1st course is 4
Total number of students in 2nd course is 4
Total number of students in 3rd course is 2
Course 3 will not be floated. Plaese select from the other 2 courses
Enter a different course. Name:iii
1
Enter a different course. Name:jjj
2
Students in 1 elective
aaa
bbb
ccc
ddd
iii
Students in 2 elective
eee
fff
ggg
hhh
jjj
Students in 3 elective
```

```
...Program finished with exit code 0
Press ENTER to exit console.
```