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1  #include <stdio.h>
2  struct Student
3  {
4      char name[50];
5      int elective;
6  };
7  typedef struct Student student;
8
9  int main()
10 {
11     student s[100];
12     int n,ch,c1,c2,c3,x;
13     printf("Enter the value of n\n");
14     scanf("%d",&n);
15     printf("\nEnter the details of the students : \n");
16     for(int i=0;i<n;i++)
17     {
18         printf("\nStudent %d :\n",i+1);
19         printf("\nEnter name :");
20         scanf("%s",&(s[i].name));
21         printf("\nChoose an elective : \n1.Internet Of Things\n2.J2EE\n3.Advanced
22         Data Structures\n");
23         scanf("%d",&(s[i].elective));
24         if(s[i].elective==1)
25             c1++;
26         else if(s[i].elective==2)
27             c2++;
28         else
29             c3++;
30     }
31     printf("\n1.Internet Of Things\n2.J2EE\n3.Advanced Data Structures\nEnter your
32     choice");
33     scanf("%d",&x);
34     if(x==1)
35     {
36         printf("\nInternet Of Things:\nStudents :\n");
37         for(int i =0;i<n;i++)
38         {
39             if(s[i].elective==1)
40                 printf("%s\n",s[i].name);
41         }
42         printf("\nTotal number of students : %d\n",c1);
43         if(c1<5)
44         {
45             printf("\nCourse has been cancelled.Students will have to reselect their
46             elective\n");
47             printf("\n2.J2EE\n3.Advanced Data Structures\n");
48             for(int i =0;i<n;i++)
49             {
50                 if(s[i].elective==1)
51                 {
52                     printf("%s Please reselect your elective(2 or 3)\n",s[i].name);
53                     scanf("%d",&s[i].elective);
54                     if(s[i].elective==2)
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52             c2++;
53             else
54             c3++;
55         }
56     }
57 }
58 c1=0;
59 }
60 else if(x==2)
61 {
62     printf("\nJ2EE:\nStudents : \n");
63     for(int i =0;i<n;i++)
64     {
65         if(s[i].elective==2)
66             printf("%s\n",s[i].name);
67     }
68     printf("\nTotal number of students : %d\n",c2);
69     if(c2<5)
70     {
71         printf("\nCourse has been cancelled.Students will have to reselect their elective\n");
72         printf("\n1.Internet Of Things\n3.Advanced Data Structures\n");
73         for(int i =0;i<n;i++)
74         {
75             if(s[i].elective==2)
76             {
77                 printf("%s Please reselect your elective(1 or 3)\n",s[i].name);
78                 scanf("%d",&s[i].elective);
79                 if(s[i].elective==1)
80                     c1++;
81                 else
82                     c3++;
83             }
84         }
85     }
86     c2=0;
87 }
88
89
90 else if(x==3)
91 {
92     printf("Advanced Data Structures:\nStudents : \n");
93     for(int i =0;i<n;i++)
94     {
95         if(s[i].elective==3)
96             printf("%s\n",s[i].name);
97     }
98     printf("Total number of students : %d\n",c3);
99     if(c3<5)
100    {
101        printf("Course has been cancelled.Students will have to reselect their elective\n");
102        printf("\n1.Internet Of Things\n2.J2EE\n");
103        for(int i =0;i<n;i++)
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104         {
105             if(s[i].elective==3)
106             {
107                 printf("%s Please reselect your elective(1 or 2)\n",s[i].name);
108                 scanf("%d",&s[i].elective);
109                 if(s[i].elective==1)
110                     c1++;
111                 else
112                     c2++;
113             }
114         }
115     }
116     c3=0;
117 }
118
119 if(c1!=0)
120 {
121     printf("\nElective : Internet Of Things \nTotal number of students : %d\n",c1);
122     for(int i=0;i<n;i++)
123     {
124         if(s[i].elective==1)
125             printf("%s\n",s[i].name);
126     }
127 }
128 if(c2!=0)
129 {
130     printf("\nElective : J2EE \nTotal number of students : %d\n",c2);
131     for(int i=0;i<n;i++)
132     {
133         if(s[i].elective==2)
134             printf("%s\n",s[i].name);
135     }
136 }
137
138 if(c3!=0)
139 {
140     printf("\nElective : Advanced Data Structures \nTotal number of students :
141             %d\n",c3);
142     for(int i=0;i<n;i++)
143     {
144         if(s[i].elective==3)
145             printf("%s\n",s[i].name);
146     }
147 }
148 return 0;
149 }
```