7.Write a C program to count the number of students registered for three elective courses. Accept the names of n students, their choice of the elective (Say, the electives courses offered are Internet of Things, Advanced Java and J2EE and Advanced Data Structures).
Include the following operations:
1. Accept say x from the user. Display the names of the students who have opted for elective x
2. Count and display the total number of students present in each elective.
3. If count is less than 30, inform that the course will not be floated and ask the students who have opted the course to reselect their electives from the other two. Count and display the counts again.
4. Display the name of the students in each elective.

{I've considered the limit to be 3 instead of 30 ,to show the sample output for condition 3}
CODE:

```
#include<stdio.h>
struct course
{
    char name[20];
};
int main()
{
struct course s[3][100];
int n,i,j,c[3]={0,0,0},choice;
char cn[3][10]={"IOT","JAVA","DS"};
printf("Enter number of students:\n");
scanf("%d",&n);
printf("Enter student details:\n");
for(i=0;i<n;i++)
{
printf("-----------------\n");
printf("Press code to select course:\n1.INTERNET OF THINGS\n2.ADVANCED JAVA AND
J2EE\n3.ADVANCED DATA STRUCTURES\n");
scanf("%d",&choice);
if(choice<0||choice>3)
{
printf("Invalid choice!\n");
continue;
}
printf("Enter name of the student %d\n",i+1);
scanf("%s",&s[choice-1][c[choice-1]].name);
c[choice-1]++;
```

```c
}
disp:
for(i=0;i<3;i++)
{
    if(c[i]>=0)
    {
        printf("List of students of course %s:\n",cn[i]);
        for(j=0;j<c[i];j++)
        {
            printf("%d) %s \n",j+1,s[i][j].name);
        }
        printf("Number of students in the course %s is %d\n",cn[i],j);
    }
}

for(i=0;i<3;i++)
{
    if(c[i]<3&&c[i]!=-1)
    {
        printf("Number of people less than 3 in course %s,so the students in the course %s please
change the course:\n",cn[i],cn[i]);
        for(j=0;j<c[i];j++)
        {
            printf("Enter course code:\n");
            scanf("%d",&choice);
            if(choice==i+1){
                printf("Enter other course!\n");
                continue;
            }
            printf("Enter name:\n");
            scanf("%s",&s[choice-1][c[choice-1]].name);
            c[choice-1]++;

        }

        n=c[i];
        c[i]=-1;
        goto disp;
    }
}

return 0;
}
```

OUTPUT:

```
Enter number of students:
10
Enter student details:
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
1
Enter name of the student 1
ravi
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
2
Enter name of the student 2
lata
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
3
Enter name of the student 3
neha
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
1
Enter name of the student 4
uday
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
2
Enter name of the student 5
anil
```

```
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
1
Enter name of the student 6
surya
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
2
Enter name of the student 7
ritu
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
3
Enter name of the student 8
jay
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
1
Enter name of the student 9
riya
-----------------
Press code to select course:
1.INTERNET OF THINGS
2.ADVANCED JAVA AND J2EE
3.ADVANCED DATA STRUCTURES
2
Enter name of the student 10
ram
```

```
List of students of course IOT:
1) ravi
2) uday
3) surya
4) riya
Number of students in the course IOT is 4
List of students of course JAVA:
1) lata
2) anil
3) ritu
4) ram
Number of students in the course JAVA is 4
List of students of course DS:
1) neha
2) jay
Number of students in the course DS is 2
Number of people less than 3 in course DS,so the students in the course DS please change the course:
Enter course code:
1
Enter name:
neha
Enter course code:
2
Enter name:
jay
List of students of course IOT:
1) ravi
2) uday
3) surya
4) riya
5) neha
Number of students in the course IOT is 5
List of students of course JAVA:
1) lata
2) anil
3) ritu
4) ram
5) jay
Number of students in the course JAVA is 5

Process returned 0 (0x0)   execution time : 1862.629 s
Press any key to continue.
```