(7).

```
#include<stdio.h>
#include<stdlib.h>
struct Student {
    char name[40];
    int elective;
};
int main()
    int i,j, choice, n, least, temp;
    int count[3] = {0,0,0};
    char electives[3][40] = {"IOT", "Advanced
                    Java", "J2EE"};
    printf("Enter the number of students: ");
    scanf("%d", &n);
    struct Student student[n];
    for(i=0; i<3; i++) {
        printf("\n%d-%s", i+1, electives[i]);
    }
    for(i=0; i<n; i++) {
        printf("\nEnter the name of student: ");
        scanf("%s", student[i].name);
        printf("\nEnter the choice: ");
        scanf("%d", &student[i].elective);
    }
    for(i=0; i<n; i++) {
        if(student[i].elective == 1) {
            count[0]++;
        } else if(student[i].elective == 2) {
            count[1]++;
        } else {
            count[2]++;
        }
}
```

```
printf("\n Operation 1: \n");
printf("Enter the choice of elective you want to
        get the list for: \n");
int x;
scanf("%d", &x);
for (i=0; i<n; i++) {
    if (student[i].elective == x) {
        printf("> %s \n", student[i].name);
    }
}
printf("Operation 2 \n");
printf("Number of students in %s elective:
        %d \n", electives[0], count[0]);
printf("Number of students in %s elective:
        %d \n", electives[1], count[1]);
printf("Number of students in %s electives:
        %d \n", electives[2], count[2]);
printf("Operation 3 \n");
if (count[0] < 3) {
    printf("%s students must choose another
        elective due to less number \n",
        electives[0]);
    printf("choose between Advanced Java(2)
        and J2EE(3) \n");
    scanf("%d", &choice);
    for (i=0; i<n; i++) {
        if (student[i].elective == 1) {
            student[i].elective = choice;
            count[0]--;
```

```
                count[choice-1]++;
            }
        }
    }
    if(count[1]<3){
        printf("%d students must choose another
            elective due to less number\n",
            electives[1]);
        printf("choose between IOT(1) and J2EE(3)\n");
        scanf("%d",&choice);
        for(i=0;i<n;i++){
            if(student[i].elective==2){
                student[i].elective=choice;
            }
            count[0]--;
            count[choice-1]++;
        }
    }
    if(count[2]<3){
        printf("%d students must choose another
            elective due to less number\n",
            electives[2]);
        printf("choose between Advanced Java(1)
            and J2EE(2)\n");
        scanf("%d",&choice);
        for(i=0;i<n;i++){
            if(student[i].elective==3){
                student[i].elective=choice;
            }
            count[0]--;
```

```
            count[choice-1]++;
        }
    }
    printf("Number of students in %s elective:
            %d\n", electives[0], count[0]);
    printf("Number of students in %s elective:
            %d\n", electives[1], count[1]);
    printf("Number of students in %s elective:
            %d\n", electives[2], count[2]);
    printf("Operation 4\n");

    for(i=0; i<3; i++){
        printf("\nStudents in %s:\n", electives[i]);
        for(j=0; j<n; j++){
            if(students[j].electives == (i+1)){
                printf("> %s\n", student[j].name);
            }
        }
    }
    return 0;
}
```