matadd.c
matrix.c
one.c
prime.c
q8.c
q10.c
smallest.c
\Des...folder
a.c
array.c
b.c
bin.c
cal.c
calculator.c
cie.c
count.c
dd.c
hash.c
indext.html
matpro.c
new.c
oo.c
pri.c
prime.c
rand func.c
rows.c
shape.c
ss.c
st.c
ten.c

```c
#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 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("\nOperation 1: \n");
```

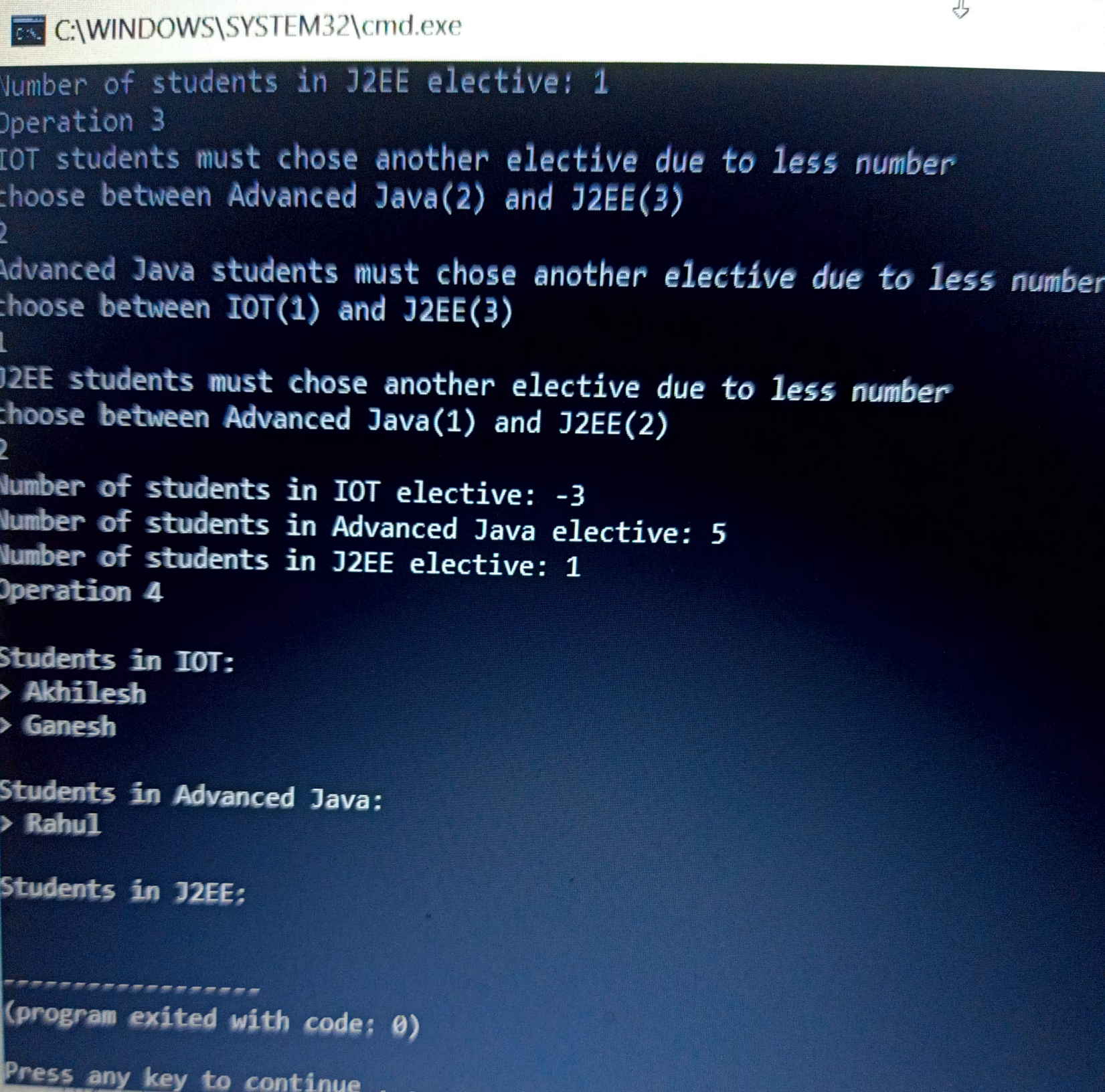
```
38      printf("\nOperation 1: \n");
39      printf("Enter the choice of elective you want to get the list for: \n");
40      int x;
41      scanf("%d",&x);
42
43      for(i=0;i<n;i++){
44          if(student[i].elective == x){
45              printf("> %s\n",student[i].name);
46          }
47      }
48
49      printf("Operation 2\n");
50      printf("Number of students in %s elective: %d\n",electives[0],count[0]);
51      printf("Number of students in %s elective: %d\n",electives[1],count[1]);
52      printf("Number of students in %s elective: %d\n",electives[2],count[2]);
53
54      printf("Operation 3\n");
55
56      if(count[0] < 3){
57          printf("%s students must chose another elective due to less number\n",electives[0]);
58          printf("choose between Advanced Java(2) and J2EE(3)\n");
59          scanf("%d",&choice);
60          for(i=0;i<n;i++){
61              if(student[i].elective == 1){
62                  student[i].elective = choice;
63                  count[0]--;
64                  count[choice-1]++;
65              }
66
67          }
68      }
69      if(count[1] < 3){
70          printf("%s students must chose another elective due to less number\n",electives[1]);
71          printf("choose between IOT(1) and J2EE(3)\n");
72          scanf("%d",&choice);
73          for(i=0;i<n;i++){
74              if(student[i].elective == 2){
75                  student[i].elective = choice;
```

```
gcc -Wall -o "shape" "shape.c" (in directory: C:\Users\DELL\Desktop\New folder)
Compilation finished successfully.
```

```
73          for(i=0;i<n;i++){
74              if(student[i].elective == 2){
75                  student[i].elective = choice;
76              }
77              count[0]--;
78              count[choice-1]++;
79          }
80      }
81      if(count[2] < 3){
82          printf("%s students must chose another elective due to less number\n",electives[2]);
83          printf("choose between Advanced Java(1) and-J2EE(2)\n");
84          scanf("%d",&choice);
85          for(i=0;i<n;i++){
86              if(student[i].elective == 3){
87                  student[i].elective = choice;
88              }
89              count[0]--;
90              count[choice-1]++;
91          }
92      }
93      printf("Number of students in %s elective: %d\n",electives[0],count[0]);
94      printf("Number of students in %s elective: %d\n",electives[1],count[1]);
95      printf("Number of students in %s elective: %d\n",electives[2],count[2]);
96
97      printf("Operation 4\n");
98
99      for(i=0;i<3;i++){
100         printf("\nStudents in %s: \n",electives[i]);
101         for(j=0;j<n;j++){
102             if(student[j].elective == (i+1)){
103                 printf("> %s\n",student[j].name);
104             }
105         }
106     }
107     return 0;
108 }
109
110
```

C:\WINDOWS\SYSTEM32\cmd.exe

```
Enter number of students: 3

1-IOT
2-Advanced Java
3-J2EE
Enter the name of student: Akhilesh

Enter the choice: 1

Enter the name of student: Ganesh

Enter the choice: 2

Enter the name of student: Rahul

Enter the choice: 3

Operation 1:
Enter the choice of elective you want to get the list for:
1
> Akhilesh
Operation 2
Number of students in IOT elective: 1
Number of students in Advanced Java elective: 1
Number of students in J2EE elective: 1
Operation 3
IOT students must chose another elective due to less number
choose between Advanced Java(2) and J2EE(3)
```


C:\WINDOWS\SYSTEM32\cmd.exe
Number of students in J2EE elective: 1
Operation 3
IOT students must chose another elective due to less number
choose between Advanced Java(2) and J2EE(3)
2
Advanced Java students must chose another elective due to less number
choose between IOT(1) and J2EE(3)
1
J2EE students must chose another elective due to less number
choose between Advanced Java(1) and J2EE(2)
2
Number of students in IOT elective: -3
Number of students in Advanced Java elective: 5
Number of students in J2EE elective: 1
Operation 4
Students in IOT:
> Akhilesh
> Ganesh
Students in Advanced Java:
> Rahul
Students in J2EE:
(program exited with code: 0)
Press any key to continue