

7)

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```

#include <stdio.h>
int main()
{
    int n, i, e1=0, e2=0, e3=0, x, p, min, l=0;
    struct student
    {
        int elec;
        char name[20];
    } ar[100];

    printf("Enter the number of the students\n");
    scanf("%d", &n);

    printf("choice of elective:\n1- IoT, 2- Advanced Java and J2EE, 3- Advanced data structures\n");

    for(i=0; i<n; i++)
    {
        printf("Enter %d students' name and the choice of\n", i+1);
        scanf("%s%d", ar[i].name, &ar[i].elec);
        if(ar[i].elec==1)
            e1++;
        if(ar[i].elec==2)
            e2++;
        if(ar[i].elec==3)
            e3++;
    }
    if(e1 <= e2 && e1 <= e3)
        min = e1;
    if(e2 <= e1 && e2 <= e3)
        min = e2;
    if(e3 <= e2 && e3 <= e1)
        min = e3;
    if(e3 <= e2 && e3 <= e1)
        min = e3;
    printf("Enter the course number\n");
    scanf("%d", &x);

```

```

Printf("Names of students who have opted for %d:\n", x);
for(i=0; i<n; i++)
{
    if(ar[i].elec == x)
        Printf("%s\n", ar[i].name);
}
Printf("Total no of students in 1st course is %d\n", e1);
Printf("Total no of students in 2nd course is %d\n", e2);
Printf("Total no of students in 3rd course is %d\n", e3);
if(e1 < 3 && e2 >= 3 && e3 >= 3)
{
    Printf("Course 1 will not be floated. Please select from the
    other 2 courses\n");
    p = 1;
    l = 1;
}
if(e2 < 3 && e1 >= 3 && e3 >= 3)
{
    Printf("Course 2 will not be floated. Please select from the
    other 2 courses\n");
    p = 2;
    l = 1;
}
if(e3 < 3 && e1 >= 3 && e2 >= 3)
{
    Printf("Course 3 will not be floated. Please select
    from the other 2 courses\n");
    p = 3;
    l = 1;
}
if(l == 0)
{
    if(min == e1)
    {

```

printf("Please select from course 2 and 3\n");

p=1;

}

else if (min == c2)

{

printf("Please select from course 1 and 3\n");

p=2;

}

else if (min == c3)

{

printf("Please select from course 1 and 2\n");

p=3;

}

if (p == 1)

{

for (i=0; i<n; i++)

{

if (as[i].elec == 1)

{

printf("Enter a different course. Name: %s\n", as[i].name);

scanf("%d", &as[i].elec);

}}

else if (p == 2)

{

for (i=0; i<n; i++)

{

if (as[i].elec == 2)

{

printf("Enter a different course. Name: %s\n", as[i].name);

scanf("%d", &as[i].elec);

}}

else if (p == 3)

{

for (i=0; i<n; i++)

{

```

    if (ar[i].elec == 3)
    {
        printf("Enter a different course Name: %s\n", ar[i].name);
        scanf("%d", &ar[i].elec);
    }
}
printf("Students in 1 elective\n");
for (i = 0; i < n; i++)
{
    if (ar[i].elec == 1)
        printf("%s\n", ar[i].name);
}
printf("Students in 2 elective\n");
for (i = 0; i < n; i++)
{
    if (ar[i].elec == 2)
        printf("%s\n", ar[i].name);
}
printf("Students in 3 elective\n");
for (i = 0; i < n; i++)
{
    if (ar[i].elec == 3)
        printf("%s\n", ar[i].name);
}
return 0;
}

```



```
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;
30     printf("Enter the course number\n");
```

The screenshot shows a web browser window with the URL `onlinegdb.com/online_c_compiler`. The browser's address bar and navigation buttons are visible at the top. Below the browser, there is a toolbar with buttons for 'Run', 'Debug', 'Stop', 'Share', 'Save', 'Beautify', and a download icon. The main area displays a C program in a dark-themed editor, with the file name 'main.c' shown in the top left corner of the editor. The code is as follows:

```
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;
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);
```

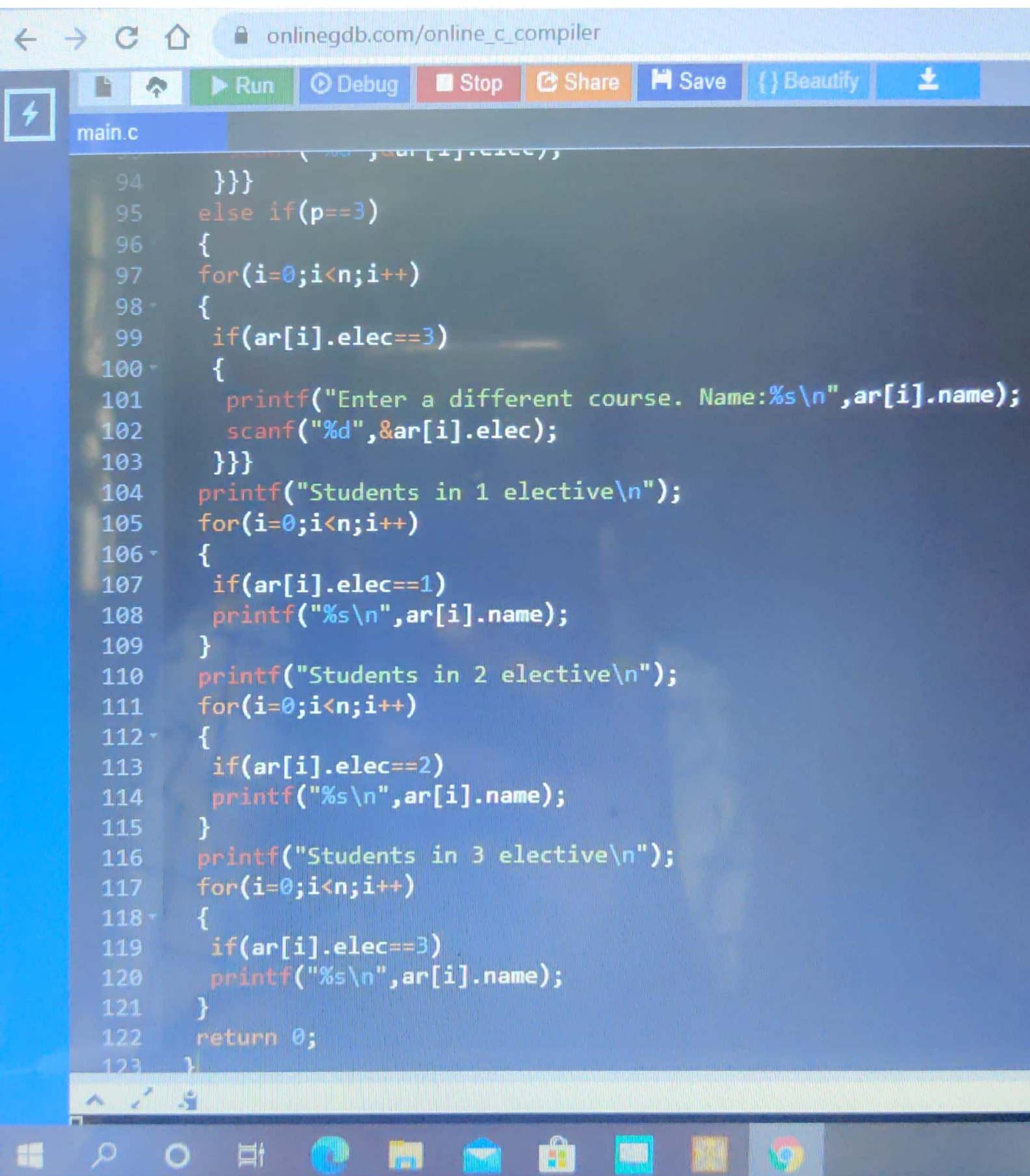
At the bottom of the browser window, a Windows taskbar is visible with icons for the Start menu, Search, Task View, File Explorer, Mail, Microsoft Store, and Google Chrome. The Dell logo is visible on the bottom bezel of the monitor.


```
onlinegdb.com/online_c_compiler

main.c
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)
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     {
```

main.c

```
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     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             }}}}
```

The screenshot shows a web browser window with the address bar displaying "onlinegdb.com/online_c_compiler". Below the address bar is a toolbar with buttons for "Run", "Debug", "Stop", "Share", "Save", "Beautify", and a download icon. The main area is a code editor with a file named "main.c". The code is a C program that manages student course selections. It uses an array of structures to store student names and their selected elective course numbers (1, 2, or 3). The program prompts the user to enter a course number for each student and prints the list of students for each elective.

```
93     }  
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            printf("Students in 1 elective\n");  
105            for(i=0;i<n;i++)  
106            {  
107                if(ar[i].elec==1)  
108                    printf("%s\n",ar[i].name);  
109            }  
110            printf("Students in 2 elective\n");  
111            for(i=0;i<n;i++)  
112            {  
113                if(ar[i].elec==2)  
114                    printf("%s\n",ar[i].name);  
115            }  
116            printf("Students in 3 elective\n");  
117            for(i=0;i<n;i++)  
118            {  
119                if(ar[i].elec==3)  
120                    printf("%s\n",ar[i].name);  
121            }  
122            return 0;  
123        }
```

```
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📄 📁 ▶ Run ⏸ Debug ■ Stop 🔄 Share 💾 Save {} Beautify ⬇
main.c
94     }}}}
95     else if(p==3)
96     {
97     for(i=0;i<n;i++)

Choice of elective:
1-IoT,2-Advanced Java and J2EE,3-Advanced data structures
Enter 1 student's name and the choice of elective
Lasya
2
Enter 2 student's name and the choice of elective
Abhi
1
Enter the course number
356
Names of the students who have opted for 356:
Total number of students in 1st course is 1
Total number of students in 2nd course is 1
Total number of students in 3rd course is 0
Please select from course 1 and 2
Students in 1 elective
Abhi
Students in 2 elective
Lasya
Students in 3 elective

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