

```

1  #include<stdio.h>
2  #define c 3
3  #define s 8
4  int main()
5  {
6      int c1, c2, c3, total, sum, max, p, c, s, q=0;
7
8      printf("Enter Class Number & Student Number(Positive-value): ");
9      scanf("%d %d", &c, &s);
10     int enrol[c][s];
11     int st_number[s];
12     int temp_arr[c];
13     printf("Enter Zero '0' at last to indicate that you have entered all student number for each class:");
14
15     printf("\nIf Any Specific Class Has No Student, Press '0':\n");
16
17
18
19     while(1){
20         /* Initializing the array's */
21         for(c1=0; c1<c; c1++)
22         {
23             for(c2=0; c2<s; c2++)
24             {
25                 enrol[c1][c2]=0;
26             }
27         }
28         for(c1=0; c1<s; c1++)
29         {
30             st_number[c1]=0;
31         }
32
33
34
35         /* Taking input from user */
36
37         printf("\n");
38
39         for(c1=0; c1<c; c1++)
40         {
41             printf("\nEnter all student number one after another who has taken class \"%d\":\n", c1+1);
42
43             for(c2=0; c2<s; c2++)
44             {
45                 scanf("%d", &st_number[c2]);
46
47                 if( (st_number[c2]<0) || (st_number[c2]>s) ){
48                     printf("You Entered \"%d\" Which is Invalid Student Number.\n", st_number[c2]);
49                     return 0;
50                 }
51                 if(st_number[c2]==0)
52                     break;
53             }
54             for(c3=0; c3<s; c3++)
55             {
56                 if(st_number[c3]>0)
57                 {
58                     enrol[c1][st_number[c3]-1]=1;
59                 }
60                 else
61                 {
62                     st_number[c3]= st_number[c3] * 0;
63                     break;
64                 }
65             }
66         }

```

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67
68  /* Student number who has enrolled in all the classes */
69  printf("\nStudent numbers who are enrolled in all classes: ");
70
71  for(c1=0; c1<s; c1++)
72  {
73      total=0;
74      for(c2=0; c2<c; c2++)
75      {
76          total=total+enrol[c2][c1];
77      }
78      if(total==c)
79      {
80          printf(" %d ",c1+1);
81          ++q;
82      }
83
84  }
85  if(q==0)
86      printf(" \nNo such student who took all the classes\n");
87
88
89  /* Classes with maximum students */
90  printf("\nClass numbers with maximum students: ");
91  for(c1=0; c1<c; c1++)
92  {
93      sum=0;
94      for(c2=0; c2<s; c2++)
95      {
96          sum= sum + enrol[c1][c2];
97      }
98      temp_arr[c1]=sum;
99  }
100
101
102  /* Finding maximum in Temp_arr[c1] */
103  max = temp_arr[0];
104  p=0;
105  for(c1=0; c1<c; c1++)
106  {
107      if(temp_arr[c1]>max)
108      {
109          max = temp_arr[c1];
110          p=c1;
111      }
112  }
113  if(max==0)
114      printf(" \nAll classes are empty\n\n");
115  else
116      printf(" %d ", p+1);
117  /* ----- */
118
119  /* Finding equal value of max */
120  for(c1=0; c1<c; c1++)
121  {
122      if(max==0)
123          break;
124      if((temp_arr[c1]==max) && (c1!=p))
125      {
126          printf(" %d ", c1+1); // Class number.
127      }
128  }
129
130
131
132  /* Printing enroll[c][s] */

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```
133     printf("\n");
134     printf("Printing enroll table: \n");
135     for(c1=0; c1<c; c1++)
136     {
137         for(c2=0; c2<s; c2++)
138         {
139             printf("  %d  ", enrol[c1][c2]);
140         }
141         printf("\n");
142     }
143
144
145     }
146     return 0;
147 }
```