sample.java ● series.c ×

```c
#include<stdio.h>
void series(int x);
int main()
{
    int n;
    printf("enter a no\n");
    scanf("%d",&n);
    series(n);

}
void series(int x)
{
    int k=1;
    for(int i=1;i<=x;i++)
    {
    for(int j=1;j<=i;j++)
    {
    printf("%d\t",k);
    k++;
    }
    printf("\n");
    }
}
```

input

```
enter a no
4

1
2       3
4       5       6
7       8       9       10


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

sample.java ● series.c ×

```c
#include<stdio.h>
void grades(int cie,int see);
int main()
{
    int cie,see;
    printf("enter cie marks out of 50\n");
    scanf("%d",&cie);
    printf("enter see marks out of 100\n");
    scanf("%d",&see);
    grades(cie,see);
    return 0;
}
void grades(int cie,int see)
{
    float z,total;
    z=see/2.0;
    total=z+cie;
    if(total>=90 && total<=100)
    printf("Grade: S\n");
    else if(total>=80 && total<=89)
    printf("Grade: A\n");
    else if(total>=70 && total<=79)
    printf("Grade: B\n");
    else if(total>=60 && total<=69)
    printf("Grade: C\n");
    else if(total>=50 && total<=59)
    printf("Grade: D\n");
    else if(total>=40 && total<=49)
    printf("Grade: E\n");
    else
    printf("Grade: F\n");

}
```

input

```
enter cie marks out of 50
40
enter see marks out of 100
90
Grade: A


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

sample.java | series.c | grades.c

```c
#include<stdio.h>
void prime(int x,int y);
int main()
{
    int a,b;
    printf("Enter 2 nos such that first no is less than second\n");
    scanf("%d %d",&a,&b);
    prime(a,b);
    return 0;
}
void prime(int x,int y)
{

    for(int i=x;i<=y;i++)
    {
     int flag=0;
     if(i==1)
     printf("1 neither composite nor prime no\n");
     else
     {
    for(int j=2;j<=i/2;j++)
    {
    if(i%j==0)
    {
    flag=1;
    break;
    }
    }
    if(flag!=1)
    printf("%d\n",i);

    }
    }
}
```

```
Enter 2 nos such that first no is less than second
1
10
1 neither composite nor prime no
2
3
5
7


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

sample.java ● series.c × grade

```c
#include<stdio.h>
#include<math.h>
void cylinder();
void cone();
void sphere();
int main()
{
    int ch;
    do
    {

    printf("1.cylinder 2.cone 3.sphere 4.exit \n");
    printf("enter your choice\n");
    scanf("%d",&ch);
    switch(ch)
    {
    case 1:
    cylinder();
    break;
    case 2:
    cone();
    break;
    case 3:
    sphere();
    break;
    case 4:
    printf("exit\n");
    break;
    default:
    printf("enter correct value\n");
    }
    }while(ch!=4);
    return 0;
}
```

j

```c
void cylinder()
{
    float a,v,r,h;
    printf("enter the radius and height\n");
    scanf("%f %f",&r,&h);
    a=(2*3.14*r*h)+(2*3.14*r*r);
    v=(3.14*r*r*h);
    printf("Area:%f ; Volume:%f \n",a,v);

}
void cone()
{
    float a,v,r,h,x;
    printf("enter the radius and height\n");
    scanf("%f %f",&r,&h);
    x=sqrt((h*h)+(r*r));
    a=(3.14*r*(r+x));
    v=(3.14*r*r*(h/3.0));
    printf("Area:%f ; Volume:%f \n",a,v);

}
void sphere()
{

    float a,v,r;
    printf("enter the radius\n");
    scanf("%f",&r);

    a=4*3.14*r*r;
    v=(4.0/3.0)*3.14*r*r*r;
    printf("Area:%f ; Volume:%f \n",a,v);

}
```

```
1.cylinder 2.cone 3.sphere 4.exit
enter your choice
1
enter the radius and height
5
6
Area:345.399994 ; Volume:471.000000
1.cylinder 2.cone 3.sphere 4.exit
enter your choice
2
enter the radius and height
5
6
Area:201.120911 ; Volume:157.000000
1.cylinder 2.cone 3.sphere 4.exit
enter your choice
3
enter the radius
5
Area:314.000000 ; Volume:523.333313
1.cylinder 2.cone 3.sphere 4.exit
enter your choice
4
exit
```

sample.java | series.c | grades.c | prime.c

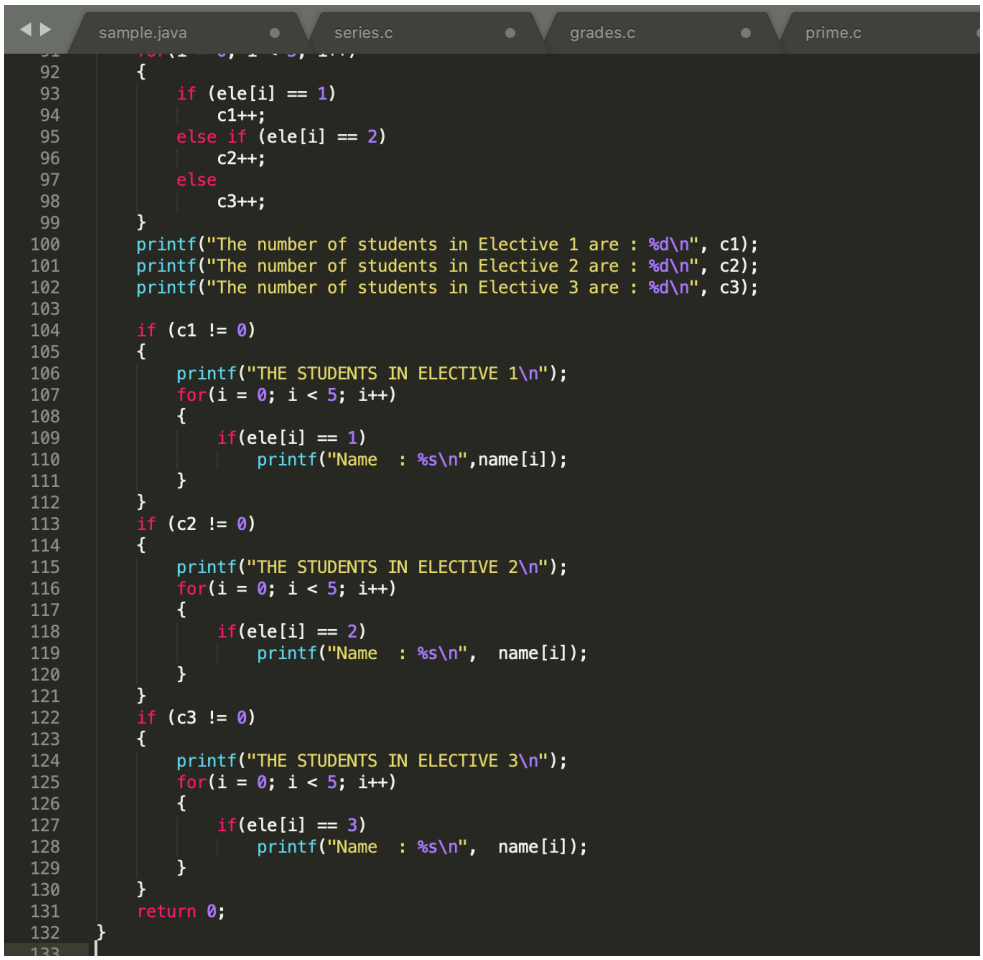
```c
#include <stdio.h>
#include <math.h>

int main()
{
    char name[5][20];
    int ele[20];
    int i, j, x, c1, c2, c3;
    c1 = c2 = c3 =0;
    for (i = 0; i < 5; i++)
    {
        printf("Enter name of student %d\n", i + 1);
        scanf("%s", name[i]);
        printf("CHOICE OF ELECTIVES\n");
        printf("1. Internet of Things\n");
        printf("2. Advanced Java and J2EE\n");
        printf("3. Advanced Data Structures\n");
        printf("Enter your choice!\n");
        scanf("%d", &ele[i]);
    }
    printf("CHOICE OF ELECTIVES\n");
    printf("1. Internet of Things\n");
    printf("2. Advanced Java and J2EE\n");
    printf("3. Advanced Data Structures\n");
    printf("Enter the elective for which you want\nto display the student :\n");
    scanf("%d", &x);
    for(i = 0; i < 5; i++)
    {
        if(ele[i] == x)
        {
            printf("Name %d : %s\n",i+1, name[i]);
        }
    }
    for(i = 0; i < 5; i++)
    {
        if (ele[i] == 1)
            c1++;
        else if (ele[i] == 2)
            c2++;
        else
            c3++;
    }
```

sample.java | series.c | grades.c | prime.c

```
43      printf("The number of students in Elective 1 are : %d\n", c1);
44      printf("The number of students in Elective 2 are : %d\n", c2);
45      printf("The number of students in Elective 3 are : %d\n", c3);
46
47      if (c1 < 2)
48      {
49          printf("Course 1 has been floated\n");
50          for(i=0; i < 5; i++)
51          {
52              if(ele[i] == 1)
53              {
54
55                  printf("2. Advanced Java and J2EE\n");
56                  printf("3. Advanced Data Structures\n");
57                  printf("student %d Enter your choice!\n",i+1);
58                  scanf("%d", &ele[i]);
59              }
60          }
61      }
62      else if (c2 < 2)
63      {
64          printf("Course 2 has been floated\n");
65          for(i=0; i < 5; i++)
66          {
67              if(ele[i] == 2)
68              {
69                  printf("1. Internet of Things\n");
70                  printf("3. Advanced Data Structures\n");
71                  printf("student %d Enter your choice!\n",i+1);
72                  scanf("%d", &ele[i]);
73              }
74          }
75      }
76      else
77      {
78          printf("Course 3 has been floated\n");
79          for(i=0; i < 5; i++)
80          {
81              if(ele[i] == 3)
82              {
83                  printf("1. Internet of Things\n");
84                  printf("2. Advanced Java and J2EE\n");
```

sample.java | series.c | grades.c | prime.c

```
85                  printf("student %d Enter your choice!\n",i+1);
86                  scanf("%d", &ele[i]);
87              }
88          }
89      }
90      c1 = c2 = c3 =0;
91      for(i = 0; i < 5; i++)
92      {
93          if (ele[i] == 1)
94              c1++;
95          else if (ele[i] == 2)
96              c2++;
97          else
98              c3++;
99      }
100     printf("The number of students in Elective 1 are : %d\n", c1);
101     printf("The number of students in Elective 2 are : %d\n", c2);
102     printf("The number of students in Elective 3 are : %d\n", c3);
103
104     if (c1 != 0)
105     {
106         printf("THE STUDENTS IN ELECTIVE 1\n");
107         for(i = 0; i < 5; i++)
108         {
109             if(ele[i] == 1)
110                 printf("Name  : %s\n",name[i]);
111         }
112     }
113     if (c2 != 0)
114     {
115         printf("THE STUDENTS IN ELECTIVE 2\n");
116         for(i = 0; i < 5; i++)
117         {
118             if(ele[i] == 2)
119                 printf("Name  : %s\n",  name[i]);
120         }
121     }
122     if (c3 != 0)
123     {
124         printf("THE STUDENTS IN ELECTIVE 3\n");
125         for(i = 0; i < 5; i++)
126         {
```




```c
    {
        if (ele[i] == 1)
            c1++;
        else if (ele[i] == 2)
            c2++;
        else
            c3++;
    }
    printf("The number of students in Elective 1 are : %d\n", c1);
    printf("The number of students in Elective 2 are : %d\n", c2);
    printf("The number of students in Elective 3 are : %d\n", c3);

    if (c1 != 0)
    {
        printf("THE STUDENTS IN ELECTIVE 1\n");
        for(i = 0; i < 5; i++)
        {
            if(ele[i] == 1)
                printf("Name  : %s\n",name[i]);
        }
    }
    if (c2 != 0)
    {
        printf("THE STUDENTS IN ELECTIVE 2\n");
        for(i = 0; i < 5; i++)
        {
            if(ele[i] == 2)
                printf("Name  : %s\n",  name[i]);
        }
    }
    if (c3 != 0)
    {
        printf("THE STUDENTS IN ELECTIVE 3\n");
        for(i = 0; i < 5; i++)
        {
            if(ele[i] == 3)
                printf("Name  : %s\n",  name[i]);
        }
    }
    return 0;
}
```

to make the output more better to understand instead of 30 students i have considered 2 and made n=5;

```
Enter name of student 1
a
CHOICE OF ELECTIVES
1. Internet of Things
2. Advanced Java and J2EE
3. Advanced Data Structures
Enter your choice!
1
Enter name of student 2
b
CHOICE OF ELECTIVES
1. Internet of Things
2. Advanced Java and J2EE
3. Advanced Data Structures
Enter your choice!
2
Enter name of student 3
c
CHOICE OF ELECTIVES
1. Internet of Things
2. Advanced Java and J2EE
3. Advanced Data Structures
Enter your choice!
```

```
3
Enter name of student 4
d
CHOICE OF ELECTIVES
1. Internet of Things
2. Advanced Java and J2EE
3. Advanced Data Structures
Enter your choice!
1
Enter name of student 5
g
CHOICE OF ELECTIVES
1. Internet of Things
2. Advanced Java and J2EE
3. Advanced Data Structures
Enter your choice!
3
CHOICE OF ELECTIVES
1. Internet of Things
2. Advanced Java and J2EE
3. Advanced Data Structures
Enter the elective for which you want
to display the student :
```

```
Enter the elective for which you want
to display the student :
2
Name 2 : b
The number of students in Elective 1 are : 2
The number of students in Elective 2 are : 1
The number of students in Elective 3 are : 2
Course 2 has been floated
1. Internet of Things
3. Advanced Data Structures
student 2 Enter your choice!
3
The number of students in Elective 1 are : 2
The number of students in Elective 2 are : 0
The number of students in Elective 3 are : 3
THE STUDENTS IN ELECTIVE 1
Name  : a
Name  : d
THE STUDENTS IN ELECTIVE 3
Name  : b
Name  : c
Name  : g
```