Series - Notepad

File Edit Format View Help

```
import java.util.*;
class Series
{
    public static void main(String[] args)
    {
    Scanner sc=new Scanner(System.in);
    int i,j,c=1,n;
    System.out.println("Enter the value of n");
    n=sc.nextInt();
    for(i=1;i<=n;i++)
    {
        for(j=1;j<=i;j++)
        {
            System.out.print(c+" ");
            c++;
        }
        System.out.println();
    }
    }
}
```

Command Prompt

```
C:\Users\vedika\Desktop\javap>dir
 Volume in drive C is Windows
 Volume Serial Number is 5A98-DA59

 Directory of C:\Users\vedika\Desktop\javap

25-09-2020  23:01    <DIR>          .
25-09-2020  23:01    <DIR>          ..
25-09-2020  23:03             1,050 Grade.class
25-09-2020  14:31               843 Grade.java
19-09-2020  22:26               407 hello.class
19-09-2020  21:24                93 hello.java
25-09-2020  23:07               403 Series.java
25-09-2020  23:01             1,661 Shape.class
25-09-2020  22:59             1,322 Shape.java
               7 File(s)          5,779 bytes
               2 Dir(s)  138,557,607,936 bytes free

C:\Users\vedika\Desktop\javap>javac Series.java

C:\Users\vedika\Desktop\javap>java Series
Enter the value of n
5
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15

C:\Users\vedika\Desktop\javap>
```

Grade - Notepad

File Edit Format View Help

```
import java.util.*;
class Grade
{
        public static void main(String[] args)
        {
            Scanner sc=new Scanner(System.in);
            int CIE,SEE;
            float total;
                System.out.println("Enter the CIE marks of the student out of 50");
                CIE=sc.nextInt();
                System.out.println("Enter the SEE marks of the student out of 100");
                SEE=sc.nextInt();
                total=CIE+((float)SEE)/2;
                if(total>=90 && total<=100)
                {
                   System.out.println("S GRADE");
                }
                else if(total>=80 && total<90)
                {
                   System.out.println("A GRADE");
                }
                else if(total>=70 && total<80)
                {
                   System.out.println("B GRADE");
                }
                else if(total>=60 && total<70)
                {
                        System.out.println("C GRADE");
                }
                else if(total>=40 && total<60)
                {
                        System.out.println("D GRADE");
                }
                else
                {
                   System.out.println("F GRADE");
                }
        }
}
```

Command Prompt

```
C:\Users\vedika\Desktop>cd javap

C:\Users\vedika\Desktop\javap>dir
 Volume in drive C is Windows
 Volume Serial Number is 5A98-DA59

 Directory of C:\Users\vedika\Desktop\javap

25-09-2020  23:01    <DIR>          .
25-09-2020  23:01    <DIR>          ..
25-09-2020  14:32             1,050 Grade.class
25-09-2020  14:31               843 Grade.java
19-09-2020  22:26               407 hello.class
19-09-2020  21:24                93 hello.java
25-09-2020  14:48               404 Series.java
25-09-2020  23:01             1,661 Shape.class
25-09-2020  22:59             1,322 Shape.java
               7 File(s)          5,780 bytes
               2 Dir(s)  138,568,040,448 bytes free

C:\Users\vedika\Desktop\javap>javac Grade.java

C:\Users\vedika\Desktop\javap>java Grade
Enter the CIE marks of the student out of 50
45
Enter the SEE marks of the student out of 100
78
A GRADE

C:\Users\vedika\Desktop\javap>
```

Prime - Notepad

File Edit Format View Help

```
import java.util.*;
class Prime
{
        public static void main(String[] args)
        {
            Scanner sc=new Scanner(System.in);
            int st,en,i,j,c=0;
                System.out.println("Enter the starting and the ending values");
                st=sc.nextInt();
                en=sc.nextInt();
                System.out.println("The prime numbers are");
                for(i=st;i<=en;i++)
                {
                    for(j=1;j<=i;j++)
                    {
                        if(i%j==0)
                        {
                            c++;
                        }
                    }
                    if(c==2)
                    {
                        System.out.println(i);
                    }
                    c=0;
                }
        }
}
```

Command Prompt

```
 Directory of C:\Users\vedika\Desktop\javap

25-09-2020  23:14    <DIR>          .
25-09-2020  23:14    <DIR>          ..
25-09-2020  23:03             1,050 Grade.class
25-09-2020  14:31               843 Grade.java
19-09-2020  22:26               407 hello.class
19-09-2020  21:24                93 hello.java
25-09-2020  23:14               535 Prime.java
25-09-2020  23:07               998 Series.class
25-09-2020  23:07               403 Series.java
25-09-2020  23:01             1,661 Shape.class
25-09-2020  22:59             1,322 Shape.java
               9 File(s)          7,312 bytes
               2 Dir(s)  138,559,414,272 bytes free

C:\Users\vedika\Desktop\javap>javac Prime.java

C:\Users\vedika\Desktop\javap>java Prime
Enter the starting and the ending values
5
15
The prime numbers are
5
7
11
13

C:\Users\vedika\Desktop\javap>
```

Shape - Notepad

File Edit Format View Help

```
import java.util.*;
import java.lang.*;
class Shape
{
        public static void main(String[] args)
        {
            Scanner sc=new Scanner(System.in);
            int ch;
            double p=3.14,r,h,area=0.0,vol=0.0;
                System.out.println("Enter your choice of shape");
                System.out.println("1.Cylinder\n2.Cone\n3.Sphere");
                ch=sc.nextInt();
                while(ch!=0)
                {
                    switch(ch)
                    {
                        case 1:System.out.println("Enter the radius and height of the cylinder respectively");
                        r=sc.nextDouble();
                        h=sc.nextDouble();
                        area=(2*p*r*h)+(2*p*r*r);
                        vol=p*r*r*h;
                        break;
                        case 2:System.out.println("Enter the radius and height of the cone respectively");
                        r=sc.nextDouble();
                        h=sc.nextDouble();
                        area=(p*r)*(r+Math.sqrt((h*h)+(r*r)));
                        vol=(p*r*r*h)/3;
                        break;
                        case 3:System.out.println("Enter the radius of the sphere");
                        r=sc.nextDouble();
                        area=4*p*r*r;
                        vol=(4/3)*(p*r*r*r);
                        break;
                    }
                    System.out.println("Area of the figure ="+area);
                    System.out.println("Volume of the figure ="+vol);
                    System.out.println();
                    System.out.println("To continue,choose an option between 1 to 3 and enter 0 to exit");
                    ch=sc.nextInt();
                }
        }
}
```

Command Prompt

```
25-09-2020  14:48               404 Series.java
25-09-2020  22:59             1,322 Shape.java
               6 File(s)          4,119 bytes
               2 Dir(s)  138,572,005,376 bytes free

C:\Users\vedika\Desktop\javap>javac Shape.java

C:\Users\vedika\Desktop\javap>java Shape
Enter your choice of shape
1.Cylinder
2.Cone
3.Sphere
2
Enter the radius and height of the cone respectively
3
4
Area of the figure =75.36
Volume of the figure =37.68

To continue,choose an option between 1 to 3 and enter 0 to exit
3
Enter the radius of the sphere
5
Area of the figure =314.0
Volume of the figure =392.5

To continue,choose an option between 1 to 3 and enter 0 to exit
0

C:\Users\vedika\Desktop\javap>
```

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

struct getname {
    char name[10];
};
int main() {
    struct getname arr[100];
    int n;
    int cnt1 = 0,cnt2 = 0,cnt3 = 0;
    int a[100];
    printf("Students are required to fill in their details and choice of electives\n");
    printf("Choices for electives: \n");
    printf("1.Internet of things\n2.Advanced Java\n3.Advance DS\n");

    int num;
    printf("Enter the total number of students: ");
    scanf("%d",&num);
    for(int i=0;i<num;i++) {
        printf("Enter the name of student : ");
        scanf("%s",&arr[i].name);
        printf("Enter your choice : ");
        scanf("%d",&n);
        a[i] = n;
        if(a[i] == 1)  {
            cnt1++;
        }
        else if(a[i] == 2) {
            cnt2++;
        }
        else if(a[i] == 3) {
            cnt3++;
        }
    }

    printf("Operation 1\n");
    int x;
```

```
    printf("Enter the choice of elective you want to get the list for: ");
    scanf("%d",&x);
    for (int i = 0; i < num; i++)
    {
        if(a[i] == x) {
            printf("%s\n",arr[i].name);
        }
    }

    printf("Operation 2\n");
    if(cnt1<3) {
        cnt1 = 0;
        printf("All elective one students are required to chose different elective.\n");
        for(int i=0;i<num;i++) {
            if(a[i] == 1) {
                printf("%s Select from elective 2 or 3: ",arr[i].name);
                scanf("%d",&n);
                a[i] = n;
                if(n == 3)
                    cnt3++;
                else if(n == 2)
                    cnt2++;
            }
        }
    }
    if(cnt2<3) {
        cnt2 = 0;
        printf("All elective two students are required to chose different elective.\n");
        for(int i=0;i<num;i++) {
            if(a[i] == 2) {
                printf("%s Select from elective 1 or 3: ",arr[i].name);
                scanf("%d",&n);
                a[i] = n;
                if(n == 1)
                    cnt1++;
```

main.c

```
73                  else if(n == 3)
74                      cnt3++;
75              }
76          }
77      }
78      if(cnt3<3) {
79          cnt3 = 0;
80          printf("All elective three students are required to chose different elective.\n");
81          for(int i=0;i<num;i++) {
82              if(a[i] == 3) {
83                  printf("%s Select from elective 2 or 1: ",arr[i].name);
84                  scanf("%d",&n);
85                  a[i] = n;
86                  if(n == 1)
87                      cnt1++;
88                  else if(n == 2)
89                      cnt2++;
90              }
91          }
92      }
93      printf("Operation 3\n");
94      printf("Number of students in elective one : %d\n",cnt1);
95      printf("Number of students in elective two : %d\n",cnt2);
96      printf("Number of students in elective three : %d\n",cnt3);
97
98      printf("Operation 4\n");
99      printf("List of students in elective 1: \n");
100     for (int i = 0; i < num; i++)
101     {
102         if(a[i] == 1) {
103             printf("%s\n",arr[i].name);
104         }
105     }
106
```

```
106
107     printf("List of students in elective 2: \n");
108     for (int i = 0; i < num; i++)
109     {
110         if(a[i] == 2)
111         {
112             printf("%s\n",arr[i].name);
113         }
114     }
115
116     printf("List of students in elective 3: \n");
117     for (int i = 0; i < num; i++)
118     {
119         if(a[i] == 3) {
120             printf("%s\n",arr[i].name);
121         }
122     }
123
124 }
```

```
Students are required to fill in their details and choice of electives
Choices for electives:
1.Internet of things
2.Advanced Java
3.Advance DS
Enter the total number of students: 7
Enter the name of student : AA
Enter your choice : 1
Enter the name of student : BB
Enter your choice : 2
Enter the name of student : CC
Enter your choice : 2
Enter the name of student : DD
Enter your choice : 2
Enter the name of student : EE
Enter your choice : 3
Enter the name of student : FF
Enter your choice : 3
Enter the name of student : GG
Enter your choice : 3
Operation 1
Enter the choice of elective you want to get the list for: 2
BB
CC
DD
Operation 2
All elective one students are required to chose different elective.
AA Select from elective 2 or 3: 3
Operation 3
Number of students in elective one : 0
Number of students in elective two : 3
Number of students in elective three : 4
```

```
Operation 4
List of students in elective 1:
List of students in elective 2:
BB
CC
DD
List of students in elective 3:
AA
EE
FF
GG


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