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D:\Java\jdk1.8.0_261\bin\prog\SolidMain.java - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?

PersonMain.java SolidMain.java
1 import java.util.Scanner;
2
3 abstract class solid
4 { int d1,d2;
5   abstract void surface_area();
6   abstract void volume();
7 }
8
9 class cylinder extends solid
10 { double area,vol;
11
12   void surface_area()
13   { area=3.1415*d2*(d2+d1);
14     System.out.println("\nArea: "+area);
15   }
16   void volume()
17   { vol=3.1415*d2*d2*d1;
18     System.out.println("Volume: "+vol);
19   }
20 }
21
22 class cone extends solid
23 { double area,vol;
24
25   void surface_area()
26   { area=3.1415*d2*(d2+Math.pow((d1*d1+d2*d2),0.5));
27     System.out.println("\nArea: "+area);
28   }
29   void volume()
30   { vol=3.1415*d2*d2*d1/3;
31     System.out.println("Volume: "+vol);
32   }
33 }
34
35 class sphere extends solid
36 { double area,vol;
37
38   void surface_area()
39   { area=4*3.1415*d2*d2;
40     System.out.println("\nArea: "+area);
41   }
42   void volume()
```

Java source file length: 1,936 lines: 86 Ln: 77 Col: 20 Sel: 0 | 0 Windows (CR LF) UTF-8 INS 18:55 06-11-2020

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PersonMain.java SolidMain.java
42 void volume()
43 { vol=3.1415*d2*d2*d2/3;
44   System.out.println("Volume: "+vol);
45 }
46
47
48 class SolidMain
49 { public static void main(String args[])
50 { Scanner get=new Scanner(System.in);
51   int ch;
52   cylinder cy= new cylinder();
53   cone co= new cone();
54   sphere s =new sphere();
55   do
56   {
57     System.out.println("1. Cylinder\n2. Cone\n3. Sphere");
58     System.out.println("\nEnter the no of choice: ");
59     ch=get.nextInt();
60     switch(ch)
61     { case 1 :
62       System.out.println("\nEnter height and radius:");
63       cy.d1= get.nextInt();
64       cy.d2= get.nextInt();
65       cy.surface_area();
66       cy.volume();
67       break;
68     case 2 :
69       System.out.println("\nEnter altitude and radius:");
70       co.d1= get.nextInt();
71       co.d2= get.nextInt();
72       co.surface_area();
73       co.volume();
74       break;
75     case 3 :
76       System.out.println("Enter the radius :");
77       s.d2=get.nextInt();
78       s.surface_area();
79       s.volume();
80       break;
81     default : if(ch!=4)
82               System.out.println("Invalid Input");
83   }
84   }while(ch!=4);
85 }
```

Java source file length: 1,936 lines: 86 Ln: 85 Col: 4 Sel: 0 | 0 Windows (CR LF) UTF-8 INS 18:55 06-11-2020

```
D:\Java\jdk1.8.0_261\bin\prog>javac SolidMain.java
```

```
D:\Java\jdk1.8.0_261\bin\prog>java SolidMain
```

```
1. Cylinder
2. Cone
3. Sphere
```

```
Enter the no of choice:
```

```
1
```

```
Enter height and radius:
```

```
1
```

```
2
```

```
Area: 37.698
```

```
Volume: 12.566
```

```
1. Cylinder
2. Cone
3. Sphere
```

```
Enter the no of choice:
```

```
2
```

```
Enter altitude and radius:
```

```
3
```

```
5
```

```
Area: 170.12717688828258
```

```
Volume: 78.53750000000001
```

```
1. Cylinder
2. Cone
3. Sphere
```

```
Enter the no of choice:
```

```
3
```

```
Enter the radius :
```

```
3
```

```
Area: 113.094
```

```
Volume: 113.094
```

```
1. Cylinder
2. Cone
3. Sphere
```