

File Edit Selection View Go Run Terminal Help Soild_8EX.java - java - Visual Studio Code

SGPAINher.java Soild_8EX.java Person_8EX.java

Soild_8EX.java > ...

```
1  /*Write a program which has an abstract class Solid and implements cylinder, cone and
2  sphere by inheriting from solid to find surface area and volume.*/
3  import java.util.*;
4  import java.lang.String;
5  abstract class Solid
6  {
7      float d1,d2;
8      Solid(float r, float h)
9      {
10         d1=r;
11         d2=h;
12     }
13     abstract void surface_area();
14     abstract void volume();
15 }
16 class Cylinder extends Solid
17 {
18     Cylinder(float r, float h)
19     {
20         super(r,h);
21     }
22     void surface_area()
23     {
24         double sa=2*3.14*d1*d2+2*3.14*d1*d1;
25         System.out.println("the surface area of cylinder is:"+sa);
26     }
27     void volume()
28     {
29         double v=3.14*d1*d1*d2;
30         System.out.println("the volume of cylinder is:"+v);
31     }
32 }
33 class Cone extends Solid
34 {
35     Cone(float r,float h)
36     {
```

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Source: Debugger for Java (Extension) Proceed Fix... Cancel

Ln 4, Col 30 Spaces: 4 UTF-8 CRLF Java JavaSE-15

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09-11-2020

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Soild_8EX.java - java - Visual Studio Code

SGPAlnher.javaSoild_8EX.javaPerson_8EX.java

Soild_8EX.java > ...

```
35 Cone(float r,float h)
36 {
37     super(r,h);
38 }
39 void surface_area()
40 {
41     double sa=3.14*d1*(d1+Math.sqrt((d2*d2)+(d1*d1)));
42     System.out.println("the surface area of cone is:"+sa);
43 }
44 void volume()
45 {
46     double v=3.14*d1*d1*(d2/3);
47     System.out.println("the volume of cone is:"+v);
48 }
49 }
50 class Sphere extends Solid
51 {
52     Sphere(float r,float h)
53     {
54         super(r,h);
55     }
56     void surface_area()
57     {
58         double sa=4*3.14*d1*d1;
59         System.out.println("the surface area of sphere is:"+sa);
60     }
61     void volume()
62     {
63         double v=(4/3)*3.14*d1*d1*d1;
64         System.out.println("the volume of sphere is:"+v);
65     }
66 }
67 class Main
68 {
69     Run | Debug
70     public static void main(String args[])
71     {
```

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Visual Studio Code interface showing a Java file named `Soild_8EX.java` with the following code:

```
67 class Main
68 {
69     public static void main(String args[])
70     {
71         int ch, flag=0;
72         Scanner ss=new Scanner(System.in);
73         while(flag==0)
74         {
75             System.out.println("Enter the choice");
76             System.out.println("1.CYLINDER\n2.CONE\n3.SPHERE");
77             ch=ss.nextInt();
78             switch(ch)
79             {
80                 case 1:
81                     System.out.println("Enter the radius and hieght of cylinder:");
82                     float x=ss.nextFloat();
83                     float y=ss.nextFloat();
84                     Cylinder cy=new Cylinder(x,y);
85                     cy.surface_area();
86                     cy.volume();
87                     break;
88                 case 2:
89                     System.out.println("Enter the radius and hieght of cone");
90                     float s=ss.nextFloat();
91                     float w=ss.nextFloat();
92                     Cone co=new Cone(s,w);
93                     co.surface_area();
94                     co.volume();
95                     break;
96                 case 3:
97                     System.out.println("Enter the radius of sphere:");
98                     float f=ss.nextFloat();
99                     Sphere sp=new Sphere(f,f);
100                    sp.surface_area();
101                    sp.volume();
```

A build failure notification is displayed in the bottom right corner:

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The Windows taskbar at the bottom includes the search bar and various application icons.

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SGPAlnher.java Soild_8EX.java Person_8EX.java

Soild_8EX.java > ...

```
13 while(flag==0)
14 {
15     System.out.println("Enter the choice");
16     System.out.println("1.CYLINDER\n2.CONE\n3.SPHERE");
17     ch=ss.nextInt();
18     switch(ch)
19     {
20         case 1:
21             System.out.println("Enter the radius and hieght of cylinder:");
22             float x=ss.nextFloat();
23             float y=ss.nextFloat();
24             Cylinder cy=new Cylinder(x,y);
25             cy.surface_area();
26             cy.volume();
27             break;
28         case 2:
29             System.out.println("Enter the radius and hieght of cone");
30             float s=ss.nextFloat();
31             float w=ss.nextFloat();
32             Cone co=new Cone(s,w);
33             co.surface_area();
34             co.volume();
35             break;
36         case 3:
37             System.out.println("Enter the radius of sphere:");
38             float f=ss.nextFloat();
39             Sphere sp=new Sphere(f,f);
40             sp.surface_area();
41             sp.volume();
42             break;
43         default:
44             flag=1;
45     }
46 }
47 }
48 }
```

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Soild_8EX.java - java - Visual Studio Code

1: Java Process Console

PROBLEMS64OUTPUTDEBUG CONSOLETERMINAL

```
PS C:\Users\Harshita\Desktop\java> javac Soild_8EX.java
PS C:\Users\Harshita\Desktop\java> java Main
Enter the choice
1.CYLINDER
2.CONE
3.SPHERE
1
Enter the radius and hieght of cylinder:
2 8
the surface area of cylinder is:125.60000000000001
the volume of cylinder is:100.48
Enter the choice
1.CYLINDER
2.CONE
3.SPHERE
2
Enter the radius and hieght of cone
12 7
the surface area of cone is:975.6272895224686
the volume of cone is:1055.0399640655517
Enter the choice
1.CYLINDER
2.CONE
3.SPHERE
3
Enter the radius of sphere:
24
the surface area of sphere is:7234.5599999999995
the volume of sphere is:43407.36
Enter the choice
1.CYLINDER
2.CONE
3.SPHERE

```

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Windows taskbar with search bar and icons for File Explorer, Mail, Settings, Firefox, Word, and VS Code.

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Person_8EX.java - java - Visual Studio Code

SGPAINher.javaSoild_8EX.javaPerson_8EX.java X

Person_8EX.java > ...

```
1  /*Develop a Java program to implement the hierarchy given below. Include atleast one
2  appropriate member in each of these classes. Set and display details in each of the class
3  and create objects of the leaf members in the hierarchy.*/
4  import java.util.*;
5  import java.lang.String;
6  class person
7  {
8      Scanner ss=new Scanner(System.in);
9      String name;
10     void disp_person()
11     {
12         System.out.println("Enter the person name");
13         name=ss.nextLine();
14     }
15 }
16 }
17 class employee extends person
18 {
19     int age;
20     void disp_emp()
21     {
22         System.out.println("Enter the employee age");
23         age=ss.nextInt();
24     }
25 }
26 }
27 class student extends person
28 {
29     int age;
30     void disp_student()
31     {
32         System.out.println("Enter the student age");
33         age=ss.nextInt();
34     }
35 }
36 }
```

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File Edit Selection View Go Run Terminal Help Person_8EX.java - java - Visual Studio Code

SGPAINher.java Soild_8EX.java Person_8EX.java X

Person_8EX.java > ...

```
30 void disp_student()
31 {
32     System.out.println("Enter the student age");
33     age=ss.nextInt();
34 }
35
36 }
37 class teaching extends employee
38 {
39     String qualification;
40     void disp_teach()
41     {
42         System.out.println("Enter the teaching staff qualification");
43         qualification=ss.next();
44     }
45 }
46 class non_teaching extends employee
47 {
48     String qualification;
49     void disp_nonteach()
50     {
51         System.out.println("Enter the non teaching staff qualification");
52         qualification=ss.next();
53     }
54 }
55 }
56 class ug extends student
57 {
58     String dep;
59     void disp_ug()
60     {
61         System.out.println("Enter the ug department");
62         dep=ss.next();
63     }
64 }
65 }
```

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Person_8EX.java - java - Visual Studio Code

File Edit Selection View Go Run Terminal Help

SGPAlnher.java Soild_8EX.java Person_8EX.java X

Person_8EX.java > ...

```
65 }
66 class pg extends student
67 {
68     String dep;
69     void disp_pg()
70     {
71         System.out.println("Enter the pg department");
72         dep=ss.next();
73     }
74 }
75 class Main
76 {
77     Run | Debug
78     public static void main(String args[])
79     {
80         int flag=0;
81         Scanner xx=new Scanner(System.in);
82         teaching t=new teaching();
83         non_teaching nt=new non_teaching();
84         ug u=new ug();
85         pg p=new pg();
86         while(flag==0)
87         {
88             System.out.println("\nEnter the choice\n1.TEACHING STAFF\n2.NON TEACHING STAFF\n3.UG STUDENT\n4.PG STUDENT");
89             int ch=xx.nextInt();
90             switch(ch)
91             {
92                 case 1:
93                     t.disp_person();
94                     t.disp_emp();
95                     t.disp_teach();
96                     System.out.println("Name of the person : "+t.name);
97                     System.out.println("Age of employee : "+t.age);
98                     System.out.println("qualification of teaching staff: "+t.qualification);
99                     break;
100                 case 2:
```

Build failed, do you want to continue?

Source: Debugger for Java (Extension)

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Visual Studio Code interface showing a Java file named `Person_8EX.java` with the following code:

```
95 System.out.println("Name of the person : "+t.name);
96 System.out.println("Age of employee : "+t.age);
97 System.out.println("qualification of teaching staff: "+t.qualification);
98 break;
99 case 2:
100 nt.disp_person();
101 nt.disp_emp();
102 nt.disp_nonteach();
103 System.out.println("Name of the person : "+nt.name);
104 System.out.println("Age of employee : "+nt.age);
105 System.out.println("qualification of non teaching staff: "+nt.qualification);
106 break;
107 case 3:
108 u.disp_person();
109 u.disp_student();
110 u.disp_ug();
111 System.out.println("Name of the person : "+u.name);
112 System.out.println("age of student : "+u.age);
113 System.out.println("department of ug student : "+u.dep);
114 break;
115 case 4:
116 p.disp_person();
117 p.disp_student();
118 p.disp_pg();
119 System.out.println("Name of the person : "+p.name);
120 System.out.println("age of student : "+p.age);
121 System.out.println("department of pg student : "+p.dep);
122 break;
123 default:
124 flag=1;
125 }
126 }
127 }
128 }
```

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Person_8EX.java - java - Visual Studio Code

1: Java Process Console

PROBLEMS64OUTPUTDEBUG CONSOLETERMINAL

```
PS C:\Users\Harshita\Desktop\java> javac Person_8EX.java
PS C:\Users\Harshita\Desktop\java> java Main

Enter the choice
1.TEACHING STAFF
2.NON TEACHING STAFF
3.UG STUDENT
4.PG STUDENT
1
Enter the person name
Harshita
Enter the employee age
32
Enter the teaching staff qualification
M tech
Name of the person : Harshita
Age of employee : 32
qualification of teaching staff: M

Enter the choice
1.TEACHING STAFF
2.NON TEACHING STAFF
3.UG STUDENT
4.PG STUDENT
2
Enter the person name
XYZ
Enter the employee age
35
Enter the non teaching staff qualification
MBA
Name of the person : XYZ
Age of employee : 35
qualification of non teaching staff: MBA

Enter the choice
1.TEACHING STAFF
2.NON TEACHING STAFF
3.UG STUDENT
4.PG STUDENT
3
Enter the person name
ASD
Enter the student age
19
Enter the ug department
CSE
Name of the person : ASD
```

Build failed, do you want to continue?
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Windows taskbar with search bar and icons for File Explorer, Mail, Settings, Firefox, Word, and VS Code.

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Person_8EX.java - java - Visual Studio Code

1: Java Process Console

PROBLEMS64OUTPUTDEBUG CONSOLETERMINAL

35
Enter the non teaching staff qualification
MBA
Name of the person : XYZ
Age of employee : 35
qualification of non teaching staff: MBA

Enter the choice
1.TEACHING STAFF
2.NON TEACHING STAFF
3.UG STUDENT
4.PG STUDENT
3
Enter the person name
ASD
Enter the student age
19
Enter the ug department
CSE
Name of the person : ASD
age of student : 19
department of ug student : CSE

Enter the choice
1.TEACHING STAFF
2.NON TEACHING STAFF
3.UG STUDENT
4.PG STUDENT
4
Enter the person name
WER
Enter the student age
23
Enter the pg department
Machine Learning
Name of the person : WER
age of student : 23
department of pg student : Machine

Enter the choice
1.TEACHING STAFF
2.NON TEACHING STAFF
3.UG STUDENT
4.PG STUDENT
|

Build failed, do you want to continue?
Source: Debugger for Java (Extension)
ProceedFix...Cancel

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Windows taskbar with search bar, taskbar icons, and system tray.