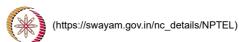
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NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Programming in Java (course)

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Course outline

How does an NPTEL online course work?

Week 0:

Week 1:

Week 2:

Week 3:

- Lecture 11 :
 Java Static
 Scope Rule
 (unit?
 unit=4&lesson=25)
- Lecture 12 : Demonstration-V (unit? unit=4&lesson=26)

Java Week 3: Q3

Due on 2020-02-20, 23:59 IST

A class Shape is defined with two overloading constructors in it. Another class Test is partially defined which inherits the class Shape. The class Test 1 should include two overloading constructors as appropriate for some object instantiation shown in main() method. You should define the constructors using the super class constructors. Also, override the method calculate() in Test 1 to calculate the volume of a Shape.

Select the Language for this assignment. Java 🔻

```
File name for this program : Test1.java
```

```
1 import java.util.Scanner;
2 class Shape{
         double length, breadth;
Shape(double l, double b){ //Constructor to initialize a Shape(double l, double b){ //Constructor to initialize a Shape(double l) }
             length = 1;
 6
             breadth= b;
 8
       Shape(double len){
                                        //Constructor to initialize another Sha
 9
            length = breadth = len;
10
       double calculate(){ // To calculate the area of a shape objection
return length * breadth;
11
12
13
14
    public class Test1 extends Shape{
15
16
17
```

```
//overriue the method calculate() in the derived class to T

21 double a,b,c;

Test1(double x,double y)

{
    super(x,y);
    a=x;

    b=y;

}
```

```
Test1(double x,double y,double z)
 Lecture 13 :
   Inheritance
                          31
                                super(x,y);
                         32
   (unit?
                                c=z;
   unit=4&lesson=27)
                          34
                             double calculate(){ // To calculate the area of a shape ob;
                          35
  Lecture 14:
                          36
   Demonstration-
                         37
                                    return super.calculate()*a;
                         38
   VI (unit?
                         39
                                elśe
   unit=4&lesson=28)
                         40
                         41
                                  return super.calculate()*c ;
 Lecture 15 :
                         42
   Information
                         43
   Hidina (unit?
                          0
                             public static void main(String args[])
   unit=4&lesson=29)
                                  Scanner sc = new Scanner(System.in);//Create an object to i
                                  double l=sc.nextDouble(); //Read length
double b=sc.nextDouble(); //Read breadth
                           2
 Quiz :
                                  double h=sc.nextDouble();
                                  double h=sc.nextDouble(); //Read height
Test1 myshape1 = new Test1(1,h);
                           4
   Assignment 3
                           5
   (assessment?
                           6
                                  Test1 myshape2 = new Test1(1,b,h);
   name=95)
                                  double volume1;
                           8
                                  double volume2;
                                  volume1 = myshape1.calculate();
 Java Week 3:
                         10
                                  volume2=myshape2.calculate();
   Ω1
                          11
                                  System.out.println(volume1);
   (/noc20_cs08/progassig
                         12
                                  System.out.println(volume2);
                         13
   name=107)
                         14
                             }
                         15
 Java Week 3:
   Q2
   (/noc20_cs08/progassignmentay submit any number of times before the due date. The final submission will
   name=108)
                        be considered for grading.
                        This assignment has Public Test cases. Please click on "Compile & Run" button
 Java Week 3:
                        to see the status of Public test cases. Assignment will be evaluated only after
   Q3
   (/noc20_cs08/progassignimeittifig using Submit button below. If you only save as or compile and run the
   name=109)
                        Program, your assignment will not be graded and you will not see your score
                        after the deadline.
 Java Week 3:
   Ω4
                            Save as Draft
                                              Compile & Run
                                                                      Submit
                                                                                          Reset
   (/noc20_cs08/progassignment?
   name=110)
                         Sample Test Cases
 Java Week 3:
                                                Input
                                                                                    Output
                                                                                      16.0
   (/noc20_cs08/progassignment?ase 1
                                                  2.0 3.0 4.0
                                                                                      24.0
   name=111)

    Feedback For

   Week 3 (unit?
   unit=4&lesson=124)
Week 4:
DOWNLOAD
VIDEOS
Assignment
Solution
```