

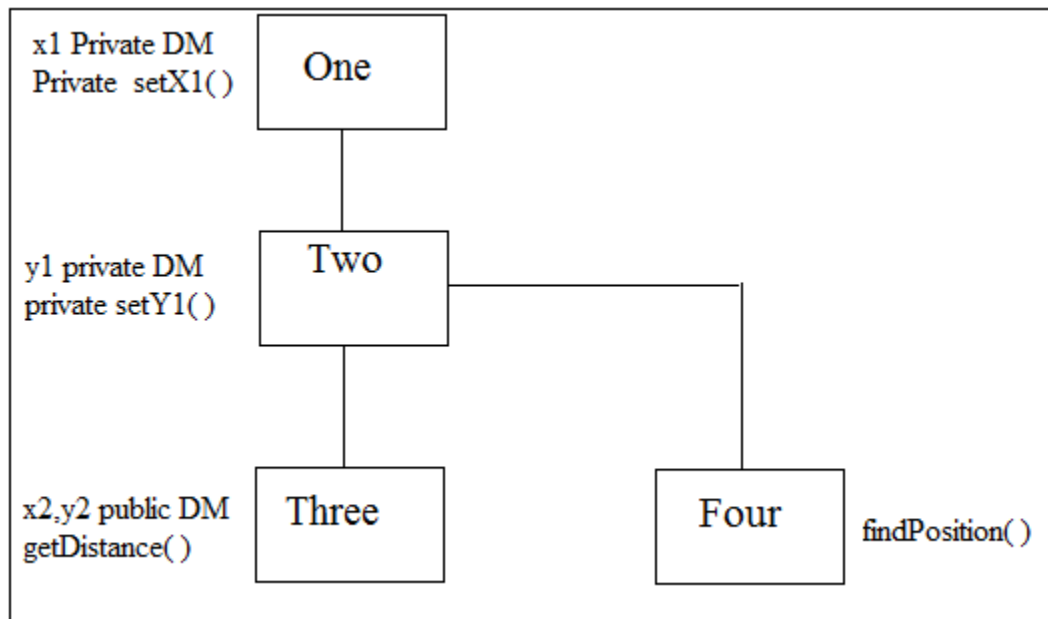
## SET 32: Java

### (Java- Private Inheritance)

1) WAP to find circumference and area of circle using two different classes called Circumference & Area by inheriting a Class called PI .Inherit the value of PI as private data member and set the value to PI using private member function.

2) WAP to calculate the area of triangle using two different classes called Base & Height, where the base of Base class is a private data member and set the value of base using private member function.

3)WAP to calculate the Distance between two points(x,y) and also find the position of the points(x,y) on x,y quadrant using four different classes called One, Two, Three and Four. Class First has point x as private data member and set the value of x using private member function and class Two has point y as private data member and set the value of y using private member function. Now inherit the class Three from class Two and calculate the distance between two points(x1,y1)&(x2,y2) where points (x1,y1) are the public data member of the class Three. For class Four find the position on x,y quadrant by inheriting class Two.(hint: Hybrid Inheritance)

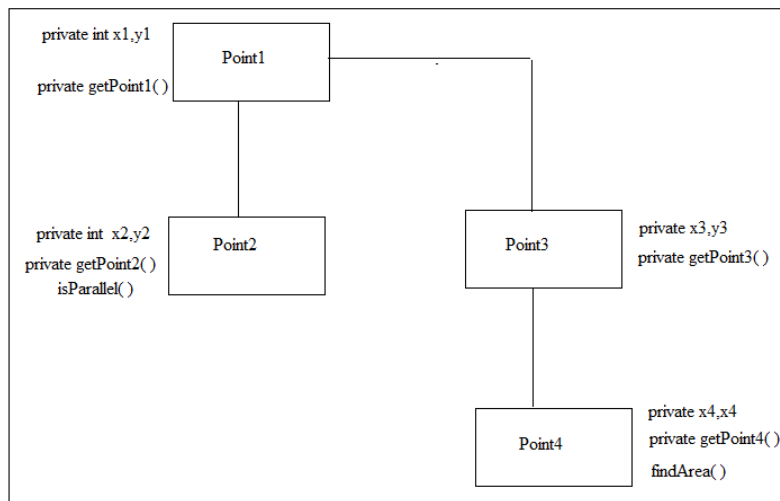


4) WAP to print student information using hierarchical inheritance having class Student, Grade, Attendance and Percentage. Class Student is the super class which has three private data members i.e; name, roll no. and percentage and set these values using private member functions. Inherit class Grade, class Percentage and class Attendance.

5) WAP to reverse an array using multi-level inheritance having class One, Two, Three, Four and Five with their private data member and private member functions and create a function called formArray() in class Five and return it to main. Create another class called Reverse with one member function getReverse().

6) WAP to print the trace and normal of a 2X2 matrix where it has five classes Row1, Row2, Matrix, TraceNormal and Datakeeper. Class Row1 has two private data members which are the elements of first row and set it's value by using private member functions. Same for class Row2 as Row1 class. In class Matrix form a matrix and return it to main(). And in class TraceNormal calculate trace and normal. Class Datakeeper stores the value of trace and normal.

7) WAP to find whether a line is parallel to X-axis or not using points (x1,y1) & (x2, y2) and also find if it forms a triangle or not by taking three points (x1,y1), (x2,y2) & (x3,y3) where it has four classes P1, P2, P3 and P4.



8) WAP to find average of sum of two matrix where it has 6 classes RowA1-> RowB1-> Matrix1 and RowA2-> RowB2 -> Matrix2.And find the average in average class.

9) Write a program to find area of a circle, triangle, rectangle, where all the classes are inherited in multilevel manner and all the classes have same function name findArea() with the same signature.

- 10) Write a program to create a multilevel inheritance for the classes called One, Two, Three where each class is having same member function `getData()` and `findProcess` with same signature. Where for the class one find the sum of two numbers, for class two biggest of two numbers and for class three find gcd of two numbers.

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