Source code TestClass

**package** shape;

**abstract** **class** Shape

{

String color;

**abstract** **double** area();

**public** **abstract** String toString();

**public** Shape(String color)

{

System.***out***.println("Shape constructor called");

**this**.color = color;

}

**public** String getColor()

{

**return** color;

}

}

**class** Circle **extends** Shape

{

**double** radius;

**public** Circle(String color,**double** radius)

{

**super**(color);

System.***out***.println("Circle constructor called");

**this**.radius = radius;

}

@Override

**double** area()

{

**return** Math.***PI*** \* Math.*pow*(radius, 2);

}

@Override

**public** String toString()

{

**return** "Circle color is " + **super**.color + "and area is : " + area();

}

}

**class** Rectangle **extends** Shape

{

**double** length;

**double** width;

**public** Rectangle(String color,**double** length,**double** width)

{

**super**(color);

System.***out***.println("Rectangle constructor called");

**this**.length = length;

**this**.width = width;

}

@Override

**double** area()

{

**return** length\*width;

}

@Override

**public** String toString()

{

**return** "Rectangle color is " + **super**.color +

"and area is : " + area();

}

}

**class** Testclass

{

**public** **static** **void** main(String[] args)

{

Shape s1 = **new** Circle("Blue", 3.3);

Shape s2 = **new** Rectangle("Blacke", 4, 6);

System.***out***.println(s1.toString());

System.***out***.println(s2.toString());

}

}