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**Subject: FJP**

**Title :JAVA Classes , objects and methods.**

**1) Write a program in JAVA with class Rectangle with the data fields width , length , area and colour. The length , width and area are of double type and colour is of string type. The methods are get\_length() , get\_width() , get\_colour() and find\_area(). Create two objects of Rectangle and compare their area and colour. If the area and colour both are the same for the objects then display "Matching Rectangles" , otherwise display " "Non-matching Rectangle".**

**Code:**

package java program;

import java.util.Scanner;

public class Rectangle {

double length,width,area;

String colour;

Scanner sc = new Scanner(System.in);

public void get\_length()

{

System.out.println("Enter the length of rectangle: ");

length = sc.nextDouble();

}

public void get\_width()

{

System.out.println("Enter the width of rectangle: ");

width=sc.nextDouble();

}

public String get\_colour()

{

System.out.println("Enter the colour of rectangle: ");

colour=sc.next();

return colour;

}

public double find\_area()

{

area=length\*width;

return area;

}

public static void main(String[] args) {

double al,a2;

Rectangle R1 = new Rectangle();

Rectangle R2 = new Rectangle();

System.out.println("Enter the details of Rectangle R1");

R1.get\_width();

R1.get\_length();

String cl=R1.get\_colour();

System.out.println("colour of rectangle 1 is "+c1);

al=R1.find\_area();

System.out.println("Area of rectangle 1 is "+al);

System.out.println("Enter the details of Rectangle 2");

R2.get\_length();

R2.get\_width();

String c2=R2.get\_colour();

System.out.println("Colour of rectangle 2 is "+c2);

a2=R2.find\_area();

System.out.println("Area of rectangle 2 is "+a2);

if((al=a2)&&(cl.compareTo(c2)==0))

System.out.println("Matching Rectangles");

else

System.out.println("Non-matching Rectangles");

}

}

**Output :**

Enter the details of Rectangle R1

Enter the length of rectangle:

5

Enter the width of rectangle:

4

Enter the colour of rectangle:

Blue

colour of rectangle 1 is Blue

Area of rectangle 1 is 20.0

Enter the details of Rectangle 2

Enter the length of rectangle:

10

Enter the width of rectangle:

2

Enter the colour of rectangle:

Blue

Colour of rectangle 2 is Blue

Area of rectangle 2 is 20.0

Matching Rectangles