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DATE – 30 SEPT 2021

BRANCH – BTECH CSE

SEC = 13 A

UID -20BCS2761

SUB- JAVA LAB MST

Q 1 -Create a class named 'Rectangle' with two data members 'length' and 'breadth' and two methods to print the area and perimeter of the rectangle respectively.

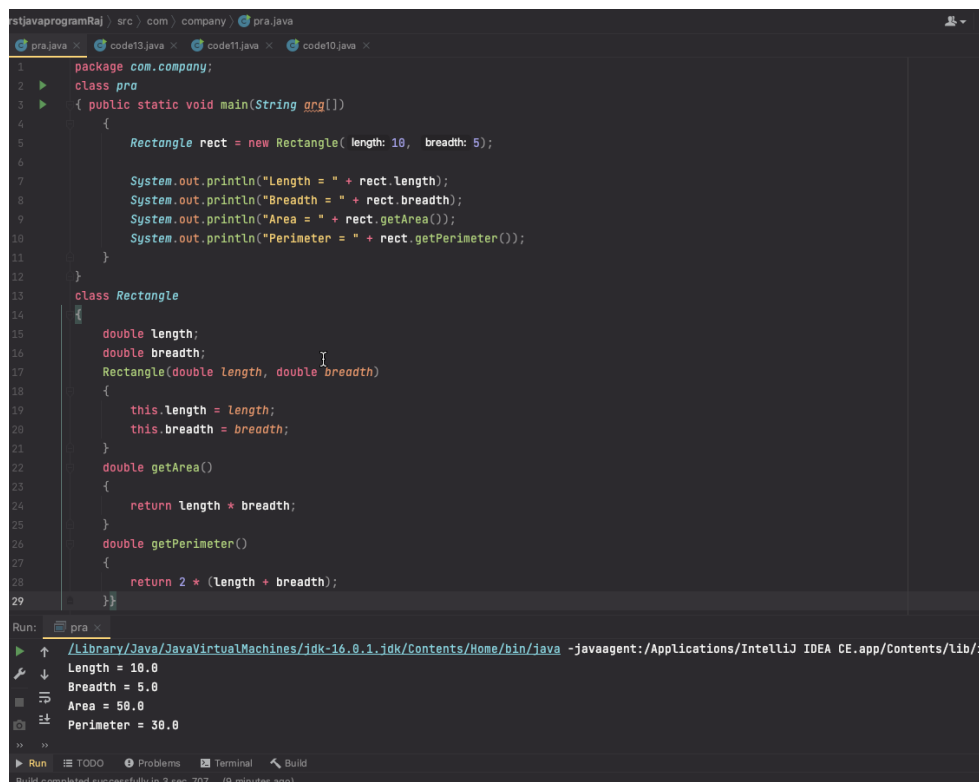
Its constructor having parameters for length and breadth is used to initialize length and breadth of the rectangle.

Let class 'Square' inherit the 'Rectangle' class with its constructor having a parameter for its side (suppose s) calling the constructor of its parent class as 'super(s,s)'.

Print the area and perimeter of a rectangle and a square.

Solution

Code in compiler and output



```
src \ com \ company \ pra.java
package com.company;
class pra
{
    public static void main(String arg[])
    {
        Rectangle rect = new Rectangle(10, 5);

        System.out.println("Length = " + rect.length);
        System.out.println("Breadth = " + rect.breadth);
        System.out.println("Area = " + rect.getArea());
        System.out.println("Perimeter = " + rect.getPerimeter());
    }
}
class Rectangle
{
    double length;
    double breadth;
    Rectangle(double length, double breadth)
    {
        this.length = length;
        this.breadth = breadth;
    }
    double getArea()
    {
        return length * breadth;
    }
    double getPerimeter()
    {
        return 2 * (length + breadth);
    }
}
Run: pra
/Library/Java/JavaVirtualMachines/jdk-16.0.1.jdk/Contents/Home/bin/java -javaagent:/Applications/IntelliJ IDEA CE.app/Contents/Lib/idea-runtime.jar -jar /Users/rajdeepsingh/Downloads/JavaLabMST.jar
Length = 10.0
Breadth = 5.0
Area = 50.0
Perimeter = 30.0
Build completed successfully in 3 sec, 707 ms (9 minutes ago)
```

Code in text

```
package com.company;
class pra
{ public static void main(String arg[])
  {
    Rectangle rect = new Rectangle(10, 5);

    System.out.println("Length = " + rect.length);
    System.out.println("Breadth = " + rect.breadth);
    System.out.println("Area = " + rect.getArea());
    System.out.println("Perimeter = " + rect.getPerimeter());
  }
}
class Rectangle
{
  double length;
  double breadth;
  Rectangle(double length, double breadth)
  {
    this.length = length;
    this.breadth = breadth;
  }
  double getArea()
  {
    return length * breadth;
  }
  double getPerimeter()
  {
    return 2 * (length + breadth);
  }
}}
```