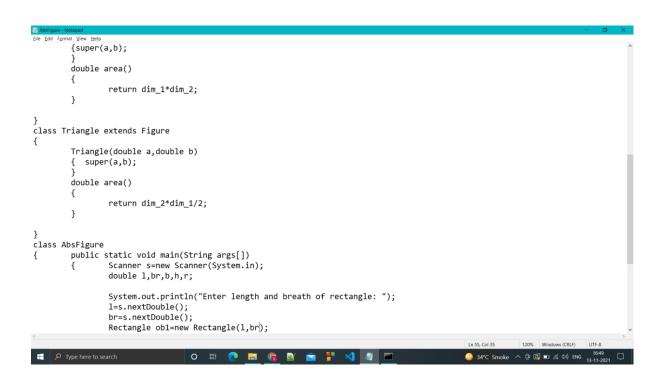
LAB 6: ABSTRACT CLASS IN JAVA

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Q.1 Take a class called Figure consisting of abstract method area(). Inherit this figure class through various other classes like Circle, Rectangle and Triangle which will redefine the function called area() as per the required formula.

CODE:

```
import java.util.*;
abstract class Figure { double dim_1,dim_2,r; Figure(double a,double b)
                                                             { dim_1=a;
                                                                          dim_2=b;
                                                             Figure(double c)
                                                             { r=c; }
                                                             abstract double area();
 class Circle extends Figure
                                                             Circle(double a)
                                                             {super(a);
                                                             double area()
                                                                                                                          return r*r*3.14;
 class Rectangle extends Figure
                                                             Rectangle(double a, double b)
                                                             {super(a,b);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ($\int_{\infty} 33°C Smoke \( \sigma \overline{\pi} \overline{\pi
```



```
class AbsFigure
        public static void main(String args[])
                  Scanner s=new Scanner(System.in);
                  double l,br,b,h,r;
                  System.out.println("Enter length and breath of rectangle: ");
                  l=s.nextDouble();
                  br=s.nextDouble();
                  Rectangle ob1=new Rectangle(1,br);
                  System.out.println("\nEnter height and base of triangle: ");
                  h=s.nextDouble();
                  b=s.nextDouble();
                  Triangle ob2=new Triangle(h,b);
                  System.out.println("\nEnter radius of circle: ");
                  r=s.nextDouble();
                  Circle ob3=new Circle(r);
                  System.out.println("\nArea of Rectangle: "+ob1.area()+" sq units");
System.out.println("\nArea of Triangle: "+ob2.area()+" sq units");
System.out.println("\nArea of Circle: "+ob3.area()+" sq units");
        }
}
```

OUTPUT:

