

**Ahsanullah University of Science and Technology**  
**Course Title: Object Oriented Programming Lab**  
**Course Number: CSE1206**  
**Spring 2020**

Online: 2      Date: 20 January, 2021      Group: B2      Time: 25 minutes

**Project Name: TestQuadrilateral (main class)**

	Marks
Class: <b>Quadrilateral</b> Private Variable: <b>type</b> (String), <b>quadArea</b> (double) Design the class (getter setter, constructors) as per your requirements.	<b>2</b>
Class: <b>CreateQuadrilateral</b> Create <u>3 overloaded</u> methods typed <b>generateQuad()</b> whose return type is <b>Quadrilateral</b> .  The methods calculate the quadAreas according to the number of parameters. Then assigns the quadArea and type to the Quadrilateral object and returns it.	
<b>generateQuad(double side)</b> $quadArea = side^2$ type = Square	<b>3</b>
<b>generateQuad(double side, double base)</b> $quadArea = base \times side$ type = Rectangle	<b>3</b>
<b>generateQuad(double side1, double side2, double height)</b>  $quadArea = (1/2) \times (side1 + side2) \times height$ type = Trapezium	<b>3</b>
Now create the object of <b>CreateQuadrilateral</b> class and call all the 3 overloaded methods. Then print the <b>types</b> and <b>quadAreas</b> from the objects generated by the methods. <b>Take user input wherever needed.</b>	<b>4</b>

**Total: 15**

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Sample Input	Sample Output
Input 1 value: 4 Input 2 values: 5 7 Input 3 values: 2 3 4	Square Area: 16.0 Rectangle Area: 35.0 Trapezium Area: 10.0