



## CSE 215L: Programming language II Lab

Faculty: Dr. Ziaul Hossain (ZHO)

Lab Quiz-03, Summer-2021

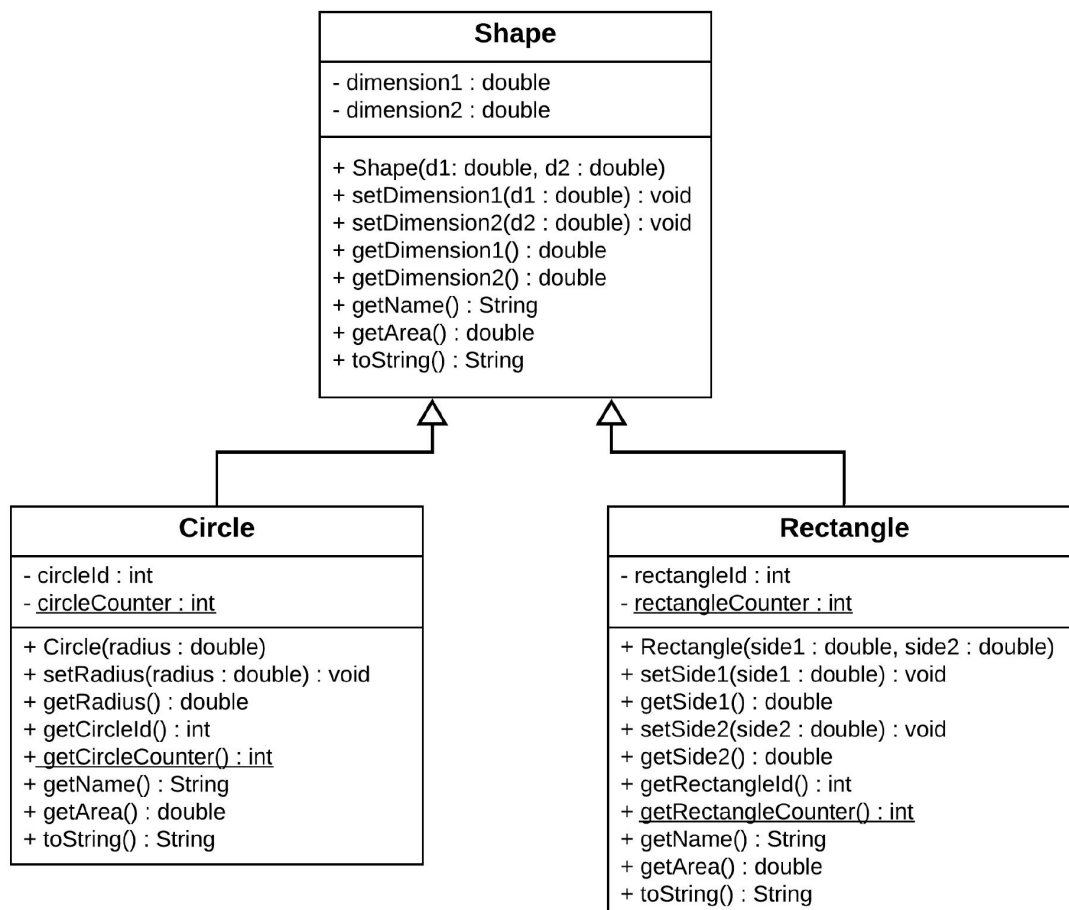
Time: 45 minutes, Full Marks: 20

Lab Instructor: Md. Mustafizur Rahman

### Instructions:

- You must upload the **.java** file(s) in Google Classroom.
- **Late submission** will not be allowed.
- The solution that you submit must be your **own work**.
- **Plagiarism** will lead to a straight zero.

**Question:** Implement the following UML class diagrams and test their methods.



Class: Shape	
getArea() : double	As the Shape is not defined, you can return 0 from this method.

Class: Circle	
- circleId : int	This variable stores a unique ID.
- <u>circleCounter</u> : int	This variable stores the number of <b>Circle</b> objects that are created. As the circleCounter variable is static, a single copy of that variable will be created and you can use the value of it to assign the value of circleId.

Class: Rectangle	
- rectangleId : int	This variable stores a unique ID.
- <u>rectangleCounter</u> : int	This variable stores the number of <b>Rectangle</b> objects that are created. As the rectangleCounter variable is static, a single copy of that variable will be created and you can use the value of it to assign the value of rectangleId.

#### Tasks:

- In the driver class of your program, create two objects for the **Circle** class and two objects for the **Rectangle** class.
- Print the area and basic information for all the instances of the **Circle** and the **Rectangle** class.
- Call the getCircleCounter() and getRectangleCounter() methods using their corresponding classes to print the total number of objects that were created for each of the classes.

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