# M'sila University, Department of Computer Science,

## ISIL

#### COURSE: DISTRIBUTED INFORMATION SYSTEMS

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#### **TP 4: Distributed Information Systems**

#### **Required software**:

- Java Software Development Kit (jdk 1.8 or later)
- Java editor such as JCreator

#### Exercise 1:

Implement a java RMI application where the client and the server exchange messages as follows:

#### Client:

First, the client should enter the name of one shape: circle, square, rectangle, and triangle, from an input dialog.

Next, the client must also enter what the server will calculate: area or perimeter from an input dialog.

Finally, based on the above inputs, the client must enter the necessary dimensions of the selected shape.

#### Server:

The server should calculate either the area or the perimeter of the specified shape and return the output to the client.

- 1. In your desktop, create a folder TP4.
- 2. Open JCeator editor.
- 3. Write your remote interface, client, and server java files.
- 4. Save the three files in TP4 and compile by selecting **Build-Build file**.
- 5. To run the application, you can follow these steps:
  - a. Open the command window by typing **cmd** and type **cd desktop** then press enter.
  - b. Type **cd TP4** then press enter.
  - c. Type start rmiregistry then press enter.
  - d. Open the three files separately. Just double click on each java file.
  - e. Run the server program from JCreator menu.
  - f. **Run** the client program from JCreator menu.

### Output :

α	main(5 Entrée	x	1
-	?	Please enter the name of the shape: 1- circle, 2- square, 3- rectangle, 4- triangle	
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pe=JOptionPane.showInputDialog("Please enter the name of the shape:

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Entrée	×
?	What do you want to calculate? 1- area, 2- perimeter
5	OK Annuler
Entrée	×
2	Please enter the radius of the circle
	20

Annuler

OK

Ge	eneral Output
	Configuration: <default< th=""></default<>
	The area of the circle is 1256.0
	Process completed.