

JAC444 Workshop 7: A Simple Client/Server Application

Due on: July 12, 2014 23:59

Value: 2% of final mark

Point: 10

Late Penalty: 10% per day up to 7 days. A one-week delay will result in 0 mark.

PROBLEM DSERIPTION

You are asked to modify the SimpleClient and SimpleServer classes in order to implement the following interactions between the client and the server programs.

THE CLIENT PROGRAM	THE SERVER PROGRAM
	- message displayed on the console: "How may I serve you? (3/15/2010 10:47 AM)" - response (sent to the client): "How may I serve you? (3/15/2010 10:47 AM)"
- message displayed on the console: "echo from the server: How may I serve you? (3/15/2010 10:47 AM)" - console display and user request: "command >> area"	
	- console display: "client's request: area" - response (sent to the client): circle, rectangle"
- console display: "CHOOSE: circle, rectangle" - console display and user request: command >> rectangle 1.1 2.2"	
	- console display: client's request: "rectangle 1.1 2.2" - response 1: (sent to the client): "OK" - response 2: "the rectangle's area: - response 3: 2.42 (Note: a double value!)
- console output: "echo from the server: OK" - console display: "the rectangle's area: 2.42" - user request: "command >> thank you" - The client stops running.	

	- console display: "THANK YOU RECEIVED!" - The server closes the connection and waits for a new connection.
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Notes:

1. Both the client and the server must echo all the requests and responses on separate console windows. A user will enter all the requests through the keyboard.
2. Whenever the client sends "thank you" as a request, the server will close the connection and wait for a new connection. Surely the client will stop running.
3. The client code must handle invalid command types and command formats.

e.g. volume, area 1.1, area one.one two.two

4. How to get current date and time in Java?

http://www.tutorialspoint.com/java/java_date_time.htm

<http://stackoverflow.com/questions/5175728/how-to-get-the-current-date-time-in-java>

<http://www.mkyong.com/java/java-how-to-get-current-date-time-date-and-calender/>

<http://www.ntu.edu.sg/home/ehchua/programming/java/DateTimeCalendar.html>

Enhanced Features (Bonus Point)

The client program gives clear instructions to a user in terms of entering valid commands. The client code must use exception handling to handle invalid commands (i.e. command types and command formats). If the user has entered an invalid command, the client code must issue an error message and prompt the user to enter a command again.

Submission Requirements for Workshop 7

- 1) Use default packages.
- 2) Your workshop 7 should be submitted as three JAR files.

The first JAR file is named as "workshop7.jar."

It consists of the Java source files and the ReadMe file for workshop 7.

- a) All the Java source files must be documented with brief comments.
- b) In the ReadMe.txt file, you must list all the commands that should be used to run your client/server application.

(Warning: If I encounter errors in running your application, you will lose 20% immediately.)

The second JAR file is named as "ws7server.jar."

It consists of all the class files that must be used to run the server program.

The third JAR file is named as "ws7client.jar."

It consists of all the class files that must be used to run the client program.

Make sure that you have executed "ws7server.jar" and "ws7client.jar" before you submit them.

3) How to submit:

Compress all jar files into a ZIP or 7z file and submit the compressed file onto the Blackboard (where the assignment is posted). The compressed file should be named as <lastname.firstname>_ws7.zip or <lastname.firstname>_ws7.2z.