Java Remote Method Invocation

You have completed a lab on TCP/IP Sockets and Remote Procedure Call (RPC) so far. In this lab you will familiarize with Java Remote Method Invocation (shortly RMI). RMI is pretty similar to RPC in principle set in the context of object-oriented programming.

1. Install JDK (preferably JDK 8, maximum JDK 14).
    a. https://www.oracle.com/in/java/technologies/javase/javase8-archive-downloads.html
    b. Based on your HW and OS, download the correct version.
    c. Ensure java, javac and rmic are in the bin folder.
    d. Download a not-so-trivial program and check if you are able to compile and execute.

2. Read the RMI example in geeks-for-geeks and try the program.
    a. https://www.geeksforgeeks.org/remote-method-invocation-in-java/
    b. Steps in a RMI program.
        i.   Defining a remote interface
        ii.   Implementing the remote interface
        iii. Creating Stub and Skeleton objects from the implementation class using rmic (RMI compiler)
        iv.   Start the rmiregistry
        v.   Create and execute the server application program
        vi.   Create and execute the client application program.
    c. Tweak the program in small ways and see how it affects the program execution.

3. Read up some more material and try out few more programs to make yourself more familiar with the topic and get hands-on.
    a. https://www.javatpoint.com/RMI
    b. https://en.wikipedia.org/wiki/Java_remote_method_invocation
    c. https://www.oracle.com/java/technologies/javase/remote-method-invocation-home.html

4. Use the lab time properly and complete the above-mentioned tasks. As for clarification in Teams or WhatsApp in case of any doubts/queries.

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