RMI exercise

Daniel Hagimont

Daniel.Hagimont@irit.fr

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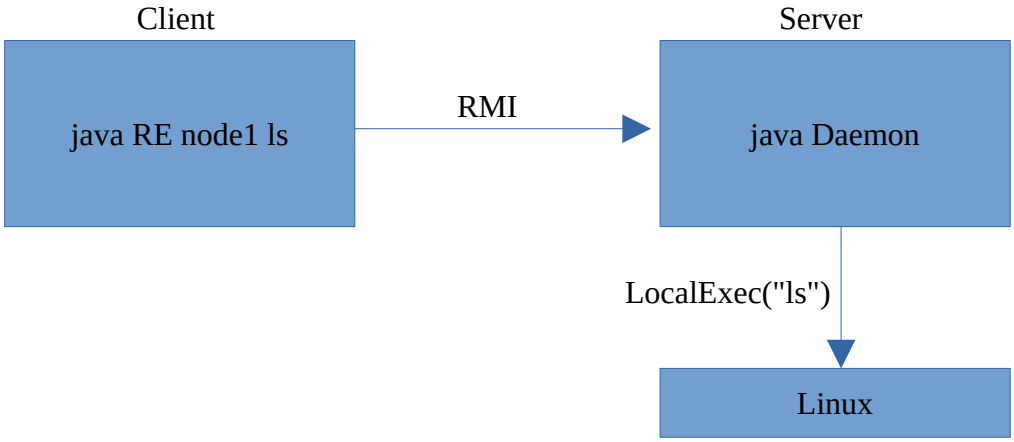
The objective of this exercise is to program with RMI.

We are considering a service which allows to execute a command remotely (such as RSH or SSH). We want to implement it with RMI.
This service is composed of 2 programs :

- a program Daemon.java which has to be launched on each machine on which we want to be able to execute commands remotely. This program registers a RMI object in its local RMIRegistry.
- a program RE.java which allows the execution of a command remotely. This program interacts with the Daemon program on the site on which the command must be executed.

The RE program is used as follows : java RE <host> <command>
The RE program receives in args[0] and args[1] the 2 Strings host and command.
In order to execute a command locally on remote machines (within the Daemon program), we use : localExec(String command);



First question
Implement the 2 programs Daemon and RE.

Second question

When the remote command print something on the console (stdout), it is printed on the remote machine.

We now want to handle printings as in SSH. When a command print something on the console, it must be printed in the console of the client who ran the command (RE).

Now, in order to execute a command locally on remote machines (within the Daemon program), we use : localExec(String command, Console console);

Console is a Java interface which provides method println(String s);

We assume that the command executed locally on the server side calls this method on the console object passed as parameter of localExec().

Modify your implementation so that all printings are propagated back to the client who launched the command.