

01JFD “Security and architecture of distributed systems”

Academic year 2005-2006, Lab. #2

Exercise 1

Implement a client/server application by using TCP sockets. The server should be listening on port 2000. Upon connection the server should send the following text to the client (CR+LF terminated):

Hello <IP>

where the <IP> should be the client's IP address. The client can issue three commands:

- INFO
- CLOSE
- QUIT

The commands should be terminated with the CR+LF characters. The INFO command will make the server send the info about the server's platform back to the client. The CLOSE command will make the server closing the connection with the client. The QUIT command should make the server to shutdown, i.e. terminate its process.

Both client and server should handle and report to the user every error it may encounter.

Exercise 2

Implement an HTTP client that should be able to connect to a server to port 80. The address of the server should be specified as the first argument when the application is started.

The second parameter should be used as the URI to be retrieved. If no second parameter is provided by the user, the value “/” should be used as the default one.

The third parameter should be used to choose the method. Valid values for the third parameter are “GET” and “HEAD”. If no third parameter is passed by the user, the “GET” method should be used by the client.

The client should print out the data received from the server onto the standard output. Test your application with “security.polito.it”.

Use protocol HTTP/1.0