

# Questions xx. Distributed programming using sockets

## *programming questions*

### Presentation

You must make a Socket program, which offers information about the files and directories on the server.

The server must offer the following services:

1. The client should be able to request for information about a directory on the server. The client also must include the name of the directory in the request.  
The server must response if the directory exists and if it exists then also the creation date for the directory (see Directory Info).
2. The client should be able to request for information subdirectories for a directory on the server The client also must include the name of the directory in the request.  
The server must response if the directory exists and if it exists then also send name of all subdirectories contained in the catalog (see Directory Info).

The server must be able to handle more concurrent clients and must be programmed so that it can be relatively easily expanded with additional services.

The class **System.IO.DirectoryInfo** can provide information about a directory (directory name specified for constructor) – the method GetDirectories can be used to find subdirectories to the directory.

### Assignment

- Make a Socket server that meets the above. Test the program with a console application or a Windows program as a client.
- Explain how the use of remote facade and proxy pattern can be used in design related to the solution.

### Additional as a help

To solve the assignment, the following materials are available:

Solution you can choose to use with:

- Empty projects for interfaces and model
- Project for Console Server
- Project Console Client (optional)
- Project for Windows client WinForm (option)
- Project for Windows client WPF (option)

There are also project **DirectoryInfoDemoWinApp** that give a small example of the use of the class **System.IO.DirectoryInfo**