SIMPLE FTP SERVER

Description:

This project consists of 2 Main Directories server_Folder and client_Folder.
In server_Folder there are different files and directories:

- server.c	file in c of the server
- server	executable file
* root	directory relative to user with username: **root**
* user1	directory relative to user with username: **user1**

Directories relative to users contain various file and subdirectories, each user have the private directory where other user can’t go it. A directory is the private space for each user.

in client_Folder there are different files and directories:

- client.c	file in c of the client
- client	executable file
- test.c	file in c of the client
- test	executable file
- other files and sub directories	used to be trasmitted

by running the file server first it is possible to create a server listening on port 12345 (port chosen by me) and it keep on waiting until a client send a request to connection.
it is possible to launch the client by specifying the IP adress or DNS name to which you want to connect via the prompt with "./client <IP address>" if no IP address is passed then the default address is set (127.0.0.1).after the user enters his credentials to authenticate, for the moment only 2 users have been created:

username: **root**	password: **password**
username: **user1**	password: **password**

once the credentials have been sent to the server, it checks that there is a user with these requirements. if a randomly generated token is provided with which the user can be recognized by the server, once received he will be able to send the messages he wants.

The available messages:

- **ls**	read the private directory into server
- **get**	send a file from local to server
- **put**	receive a file by server to local
- **cd**	change directory into server side
- **lcd**	change directory into local side
- exit	close connection

NOTE: is not possible to go into other private directories;
you can run ./server and after ./test to see a normal execution that meets the required requirements

Installation:

1 step:

execute: **gcc client.c -o client** into client_Folder

2 step:

execute: **gcc server.c -o server** into server_Folder

3 step:

run: **./server**

4 step:

run: **./client**

5 step:

in client prompt send many messages that are available

addictional steps

- *execute:* **gcc test.c -o test** *into client_Folder*
- *run:* **./test**

EXAMPLE:

test

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name@system:~/Desktop/new/client_Folder$ ./test
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Received token: Vvvxp6QwCW  for 1

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Server response:
dir
mio1.txt
nascosto.txt
nuovo.txt
  for 1

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Server response:
nascosto.txt
nuovo.txt
ultimo
  for 1

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Received token: cmqexgPO3R  for 2

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Server response:
mio1.txt
  for 1

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Server response:
dir
mio2.txt
nascosto.txt
  for 2

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File mio1.txt received successfully  for 1.

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Server response:
ultimo
  for 2

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File tuo1.txt sent to the server  for 1.

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Server response:
directory changed  for 1

Server response:
mio.txt
  for 2

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Server response:
directory changed  for 1

File mio2.txt received successfully  for 2.

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Server response:
Error changing directory permission denied
  for 1

File tuo2.txt sent to the server  for 2.

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Server response:
directory changed  for 2

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Client requested to exit. Closing connection  for 1.
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Server response:
directory changed  for 2

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Server response:
Error changing directory permission denied
  for 2

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Client requested to exit. Closing connection  for 2.
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