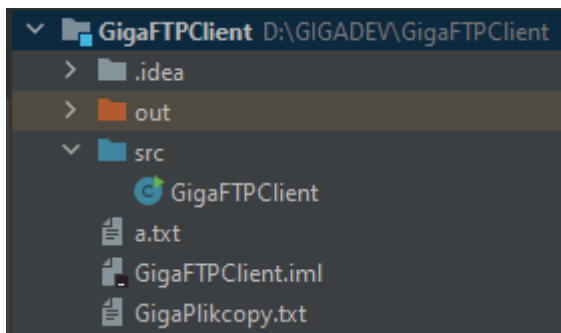# GigaFtp - Example Java FTP like server

Requirements
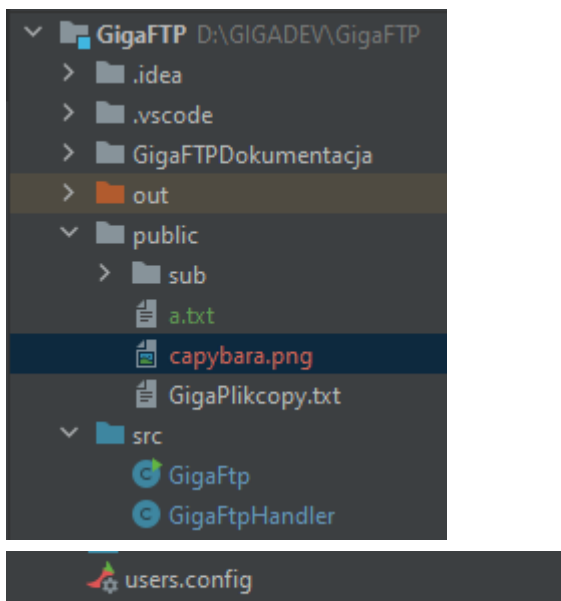
- Java: 8

Project files

Client

Server

Available commands

- USER
- PASS
- PORT
- QUIT
- RMD
- MKD
- DELE
- **RETR**
- **STOR with ABOR**
- CDUP
- CWD
- PWD
- LIST
- RMD

Default FTP user and password

User: user
Password: 1234

All users with passwords are loaded from user.config file

Example usage: Server

Run GigaFTP
All files and subfolders in "public" folder of the server will be hosted

```
∨  📁 public
   ∨  📁 sub
         📄 GigaPlikcopy.txt
      📄 a.txt
      📄 capybara.png
      📄 GigaPlikcopy.txt
```

Example usage: Client

Connecting

Run GigaFTPClient and connect to server:

```
Welcome to GigaFTPClient use OPEN command to open connection to GigaFTP server
ftp> OPEN
FTPClient: OPEN command
ftp> LOCALHOST
Welcome to GigaFTP
```

Perform authorization steps:

Type USER and wait for response,
Then type username "user":

```
ftp> USER
214 Command USER:
ftp> user
331 User name okay, need password.
```

Type PASS and wait for response,
Then type password "1234":

```
ftp> PASS
214 Command PASS:
ftp> 1234
230 User logged in, proceed.
```

Type PORT and wait for response,
Then set Active Mode for port "3020":

```
ftp> PORT
214 Command PORT:
ftp> 3020
200 PORT command successful.
```

FTP Commands example

Now you can retrieve files correctly, you can use supported commands for example:

PWD:

```
ftp> PWD
257 "./public" is current directory.
```

CWD:

```
ftp> CWD
214 Command CWD:
ftp> sub
250 Directory successfully changed.

ftp> PWD
257 "./public/sub" is current directory.

ftp>
```

LIST:

```
ftp> LIST
150 Here comes the directory listing.

a.txt
capybara.png
GigaPlikcopy.txt
sub
226 Directory send OK.
```

RETR:

```
ftp> RETR
214 Command RETR:
ftp> capybara.png
150 Opening BINARY mode data connection for capybara.png

125 Data connection already open; transfer starting.
Saving file to capybara.png
226 Transfer complete.
```

STOR:

```
ftp> STOR
214 Command STOR:
ftp> test.txt
```

```
test.txt
150 Opening BINARY mode data connection for file upload
125 Data connection already open; transfer starting.
test.txt
226 Transfer complete.
```

if file does not exists in client directory.
Client sends ABOR command

```
ftp> STOR
214 Command STOR:
ftp> DSAE
FTPClient: file doesnt exist
226 ABOR command successful.
```

QUIT:

```
ftp> QUIT
221 Goodbye.

ftp>
Connection has been not estabilished using port or server is not available anymore
Welcome to GigaFTPClient use OPEN command to open connection to GigaFTP server
```

FTP test: FTPServer outside Localhost:

```
"C:\Program Files\Java\jdk-17.0.1\bin\java.exe" "-javaagent:C:\Program Files\    PS D:\GIGADEV\GigaFTP\GigaFTPClient> ipconfig
Welcome to GigaFTPClient use OPEN command to open connection to GigaFTP serve
ftp> OPEN                                                                       Windows IP Configuration
FTPClient: OPEN command                                                         Ethernet adapter Ethernet:
ftp> 192.168.0.104                                                                  Connection-specific DNS Suffix  . :
Welcome to GigaFTP                                                                  Link-local IPv6 Address . . . . . : fe80::78a1:242a:89c5:c6e5%10
                                                                                    IPv4 Address. . . . . . . . . . . : 192.168.100.2
ftp>                                                                                Subnet Mask . . . . . . . . . . . : 255.255.255.0
                                                                                    Default Gateway . . . . . . . . . : fe80::1%10
                                                                                                                          192.168.100.1
```

```
a.txt                                                                           PS D:\GIGADEV\GigaFTP\GigaFTPClient> ipconfig
cappibarra.jpg                                                                  Windows IP Configuration
sub                                                                             Ethernet adapter Ethernet:
226 Directory send OK.                                                              Connection-specific DNS Suffix  . :
ftp> RETR                                                                           Link-local IPv6 Address . . . . . : fe80::78a1:242a:89c5:c6e5%10
214 Command RETR:                                                                   IPv4 Address. . . . . . . . . . . : 192.168.100.2
ftp> cappibarra.jpg                                                                 Subnet Mask . . . . . . . . . . . : 255.255.255.0
150 Opening BINARY mode data connection for cappibarra.jpg                          Default Gateway . . . . . . . . . : fe80::1%10
                                                                                                                          192.168.100.1
null
125 Data connection already open; transfer starting.
Saving file to cappibarra.jpg                                                   Ethernet adapter VirtualBox Host-Only Network:
226 Transfer complete.
ftp>
```

```
                                                                                    Connection-specific DNS Suffix  . :
ftp> RETR                                                                           Link-local IPv6 Address . . . . . : fe80::7911:8160:ee6e:8f39%4
214 Command RETR:                                                                   IPv4 Address. . . . . . . . . . . : 192.168.56.1
ftp> te.jpg                                                                         Subnet Mask . . . . . . . . . . . : 255.255.255.0
150 Opening BINARY mode data connection for te.jpg                                  Default Gateway . . . . . . . . . :
                                                                                PS D:\GIGADEV\GigaFTP\GigaFTPClient>
125 Data connection already open; transfer starting.
Saving file to te.jpg
226 Transfer complete.
```

Success: Image file is not corrupted: