

## Data Communications Project 1 Description

In this project, you will implement a FTP Server and FTP Client by using Java language. The required client commands are listed below:

1. connect: To connect to an FTP server, client should enter "connect hostname".
2. user: After connected to a server, client should enter "user my\_username my\_password" in order to authorize to server. The server should check whether this user is a legal user and starts a session if this user is legal.
3. list: To list all the files and directories in the server's current user, user should enter list.
4. cd: After user starts a session, in order to change directory user should enter "cd directory\_name" command.
5. cd .. : This command sets the current directory to parent directory.
6. get: To download a file from server's current directory user should enter "get filename".
7. put: To upload a file to server's current directory user should enter "put filename".
8. get -a: To download all files from server's current directory user should enter "get filename".
9. put -a: To upload all files from server's current directory user should enter "put filename".
10. quit: To quit from current session, client should "quit".
11. Invalid command: If an invalid command is entered by the client, server should return "Invalid command".

Each command is 11 points.

An example session on the localhost:

```
>connect localhost
From Server: Welcome Client from localhost.
>username ali 123
From Server: User logged on.
>cd musics
From Server: current directory is changed to /musics/
>list
From Server:
/rock/
/slow/
/8090s/
>cd 8090s
From Server: current directory is changed to /musics/8090s/
```

```
>list
song1.mp3
song2.mp3
song3.mp3
>get song3.mp3
From Server:file exists, sending...
>put song4.mp3
From Server:file is uploaded.
>list
From Server:
song1.mp3
song2.mp3
song3.mp3
song4.mp3
>cd ...
>quit
From Server: Bye
```

Deadline: 4. January. 2012 Wednesday, Demo in the class room with a report delivery.

The projects without a demo will NOT be graded.

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