
Peer To Peer File Sharing Client

Release 1

Caleb Underkoffler, Damon Gonzalez

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CONTENTS:

Python Module Index	3
Index	5

Peer to Peer File Sharing client

This is the peer to peer file sharing client.

Caleb Underkoffler Damon Gonzalez Data Comm & Network Project

`client.index(peer_port)`

Requests the list of available files from a given peer and prints them.

Parameters

peer_port (*int*) – The port of the peer to see files of.

`client.listener()`

Listens for incoming messages from peers and handles them: - Responds to “PEER” handshake for discovery. - Handles file transfer “REQUEST” and starts a sender thread. - Responds to “INDEX” requests with the list of available files.

`client.main()`

The main program and entry point for this module Handles user interaction and commands

`client.peer_discovery()`

Discovers valid peers in the network, up to a limit

Returns

a list of active peer ports

Return type

list[int]

`client.receiver(bind_ip, bind_port, file_name, destination)`

Receives a file from a peer, verifies its integrity, then saves it to specified location.

Parameters

- **bind_ip** (*str*) – IP to bind the receiving socket.
- **bind_port** (*int*) – Port to bind the receiving socket.
- **file_name** (*str*) – Name of file to receive.
- **destination** (*str*) – location to save the file.

`client.request(peer_port, file_name, destination)`

Requests a file from a peer and starts a receiver to download the file to specified location.

Parameters

- **peer_port** (*int*) – Peer’s port to request the file from.
- **file_name** (*str*) – Name of the file to request.
- **destination** (*str*) – Local path to save the file once downloaded.

`client.sender(file_path, receiver_ip, receiver_port)`

Sends a file to a peer with metadata and hash verification.

Parameters

- **file_path** (*str*) – Local path of the file to send.
- **receiver_ip** (*str*) – The IP of the receiver.
- **receiver_port** (*int*) – The port of the receiver.

PYTHON MODULE INDEX

C

client, ??

INDEX

C

`client`
 module, 1

I

`index()` (*in module client*), 1

L

`listener()` (*in module client*), 1

M

`main()` (*in module client*), 1
`module`
 client, 1

P

`peer_discovery()` (*in module client*), 1

R

`receiver()` (*in module client*), 1
`request()` (*in module client*), 1

S

`sender()` (*in module client*), 1