

## utils.py:

**Boolean**(*success*), **String**(*err\_msg*) : send\_file(*socket*, *file\_descriptor*)

**Boolean**(*success*), **String**(*err\_msg*) : receive\_file(*socket*, *file\_descriptor*, *first\_data\_blk*)

(*option*) : parse\_user\_input(*args*)

## client.py: (*pseudo code*)

parse input

send request

open corrects ports, file descriptors

send\_file or receive\_file

handle error if any

close everything

## server.py: (*pseudo code*)

start listening

loop:

open correct ports, file descriptors

send\_file or receive\_file

handle error if any

close files / correct ports

## packet.py:

**Enum** : OP\_CODE

**Enum** : ERR\_CODE

**BinaryString** : build\_packet\_rrq(*Filename*, *mode*)

**BinaryString** : build\_packet\_wrq(*Filename*, *mode*)

**BinaryString** : build\_packet\_data(*Block\_num*, *data*)

**BinaryString** : build\_packet\_ack(*Block\_num*)

**BinaryString** : build\_packet\_err(*Err\_code*)

For RRQ and WRQ

**Op\_code**, **File\_name**, **Mode** : decode\_packet(**BinaryString**)

For ACK

**Op\_code**, **Block\_num** : decode\_packet(**BinaryString**)

For DATA and ERR

**Op\_code**, **Block\_num**, **Msg** : decode\_packet(**BinaryString**)