**Server Pseudocode**

## Setup Server

Create TCP control socket with given host name and port 7005

Wait for connection from Client

If connection fails

Print error message

Exit

Else

Receive packet with GET/SEND command

If GET

Handle GET command

Else IF SEND

Handle SEND command

## Connect to DATA channel

Connect to client on data port 7006

If connected

Open connection on port to send file

Connect

## Send GET Packet

Strip the file name from the requested file

Open a file with the given file name

Create a GET packet with the file name

Send the GET packet over the control socket

If sending failed

Print Error Message

Else

Receive Client Response

## Send SEND Packet

Strip the file name from the requested file

Open a file with the given file name

Create a SEND packet with the file name

Send the SEND packet over the control socket

If sending failed

Print Error Message

Else

Receive Client Response

## Handle Send File from Client

Receive send packet from the client with file information

Open File path for writing file from client

If unable to open file

Send Error packet

Print Error Message

Return

Connect on the Data channel for receiving the file.

While there are chunks to receive

Read a 1KB chunk from the file

If reading failed

Print Error Message

Return

If reading finished

Close file and print msg saying its completed writing

## Handle GET file from Client

Receive GET packet from the client with file information

Find file that client requested

If not able to open/find

Send Error Packet

Else

Send SEND packet saying that we are sending the file

Connect on the DATA channel for sending the file

Calculate the number of 1KB chunks to send using the file size

While there are still chunks to send

Send 1KB chunk on the data socket

If sending failed

Print Error Message

Return

## Receive Client Response

Wait for a packet number to arrive

If the packet number is SEND

Read the SEND packet from the socket

Receive File with the file size in the SEND packet

Else if the packet number is GET

Read the GET packet from the socket

Send file with file size in the GET packet

Else if the packet number is ERROR

Print Error Message

## Validate File Name

Check that the file exists

Check that the file isn’t a directory

If either of these is false

Print Error Message

## Print Error Message

Print given string to stderr

Return