Linnéuniversitetet
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Report

Assignment 3

1DV701

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Semester: Spring 2021
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1 Problem 1

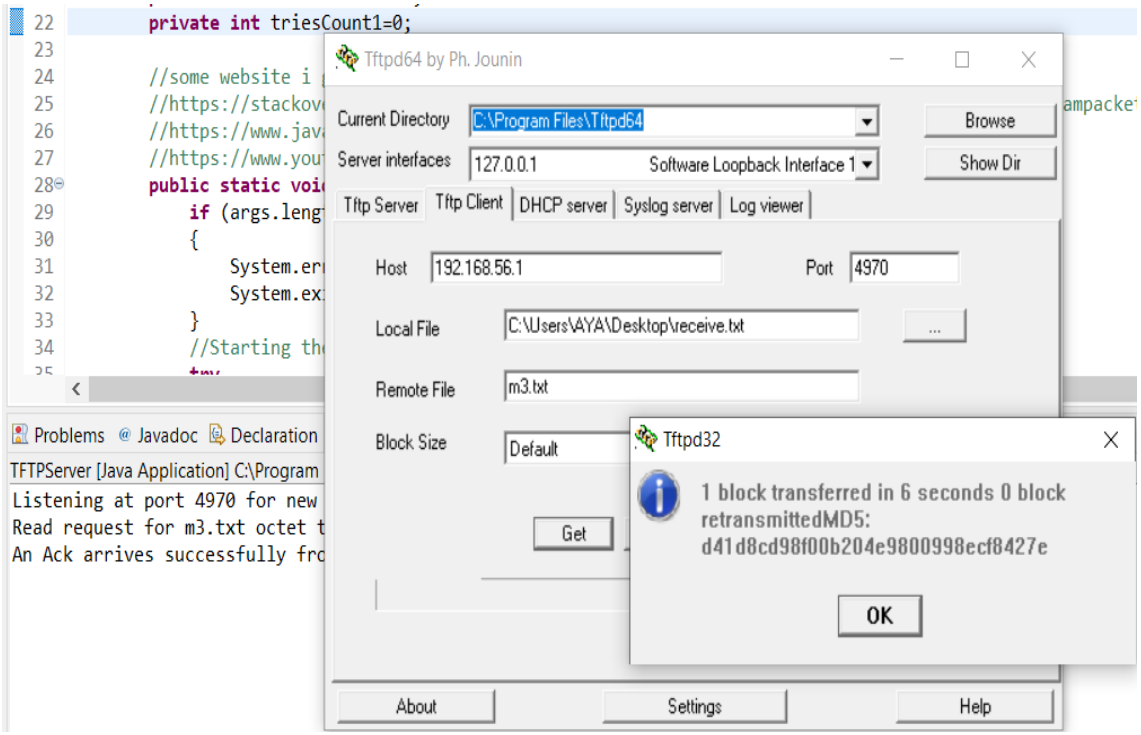

Figure 1.1 read request

Figure 1.1 shows a read request for a file that is shorter than 512kb. The request is handled within 6 seconds and the ACK arrived successfully from the TFTP client.

The reason for using Socket and SendSocket:
Socket: used to establish connection.
SendSocket: used to send data.

1.1 Discussion

In receiveFrom method handle the first request by read the request and get clint address and used port.

In ParseRQ method we eximanen if it is a read or write request and the requested file path.

In HandleRQ method the read request handled using FileInputStream while for handling write request FileOutputStream is used.

2 Problem 2

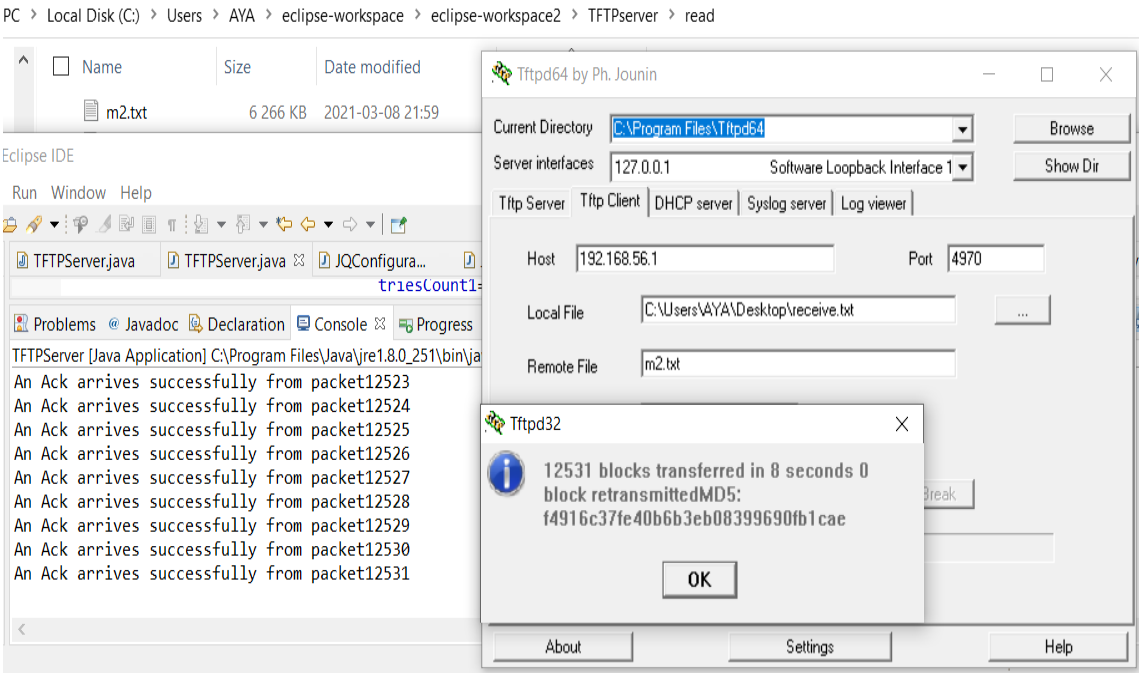

Figure 2.1 read request for a file that is larger than 512kb.

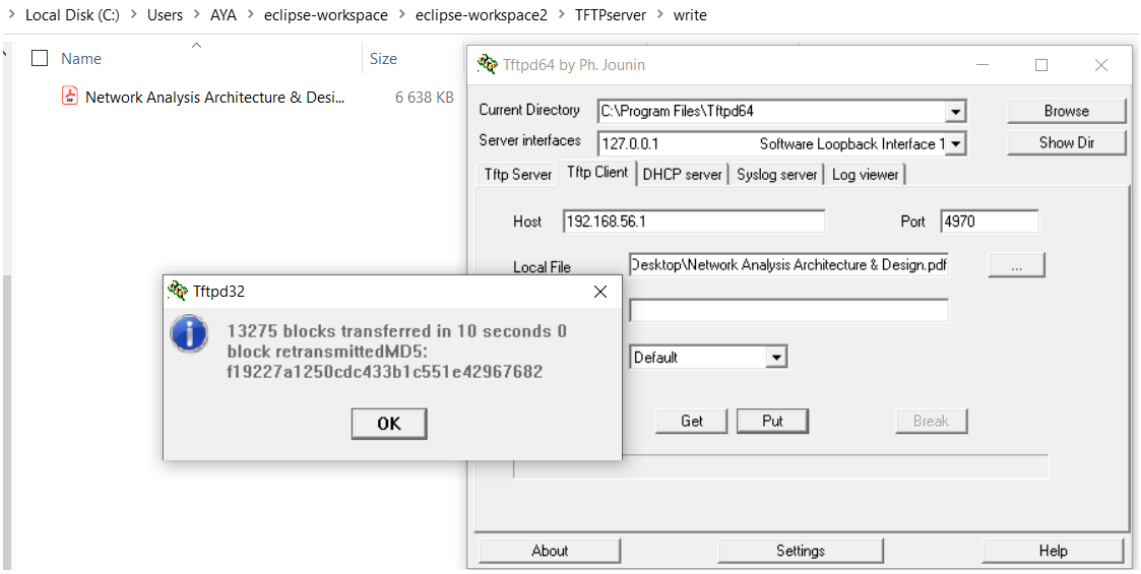

Figure 2.2 write request for a pdf file larger than 512byte.

2.1 Discussion

To handle multiple packets, I used a While loop. The loop terminates when the packet size is not equal to 512 bytes, an ACK does not arrives or a wrong ACK arrived.

To ensures that the data delivered, so we should get an Ack back from the client. I set a timeout method, but for testing I used thread.sleep(). The reason is thread.sleep() will wait an amount of time before jumping to receive method even if the Ack arrives. So while I start RRQ, I terminate the connection from the client. In this case, no Ack arrives, an error will occur and will be cached by IOExeption. When the error is cached

the server will try 5 times by resending the data as it shows in Figure 2.3. If the Ack did not arrive after 5 tries then the connection is lost.

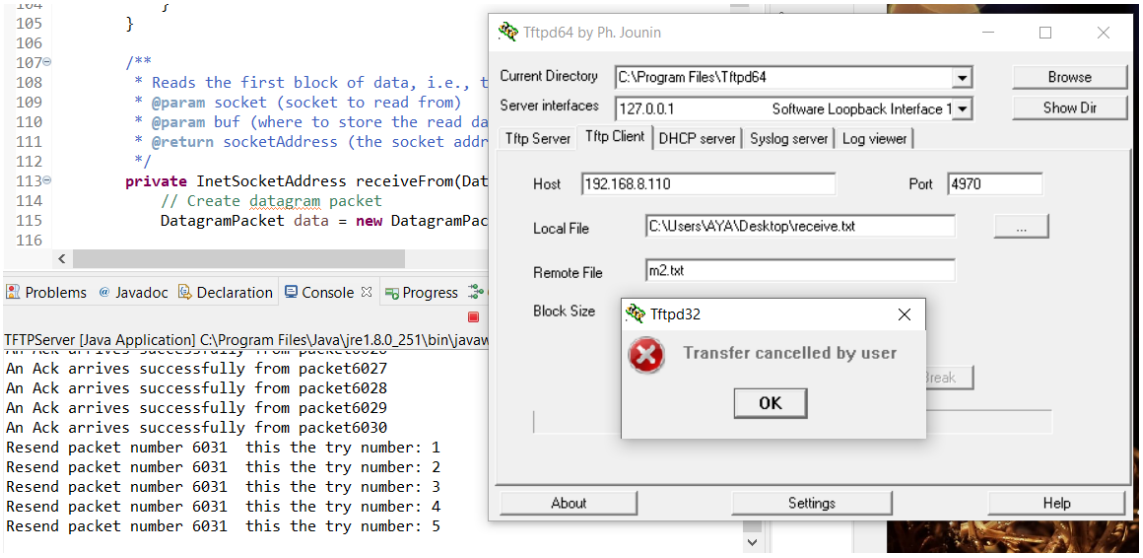

Figure 2.3 retransmission

3 problem 4

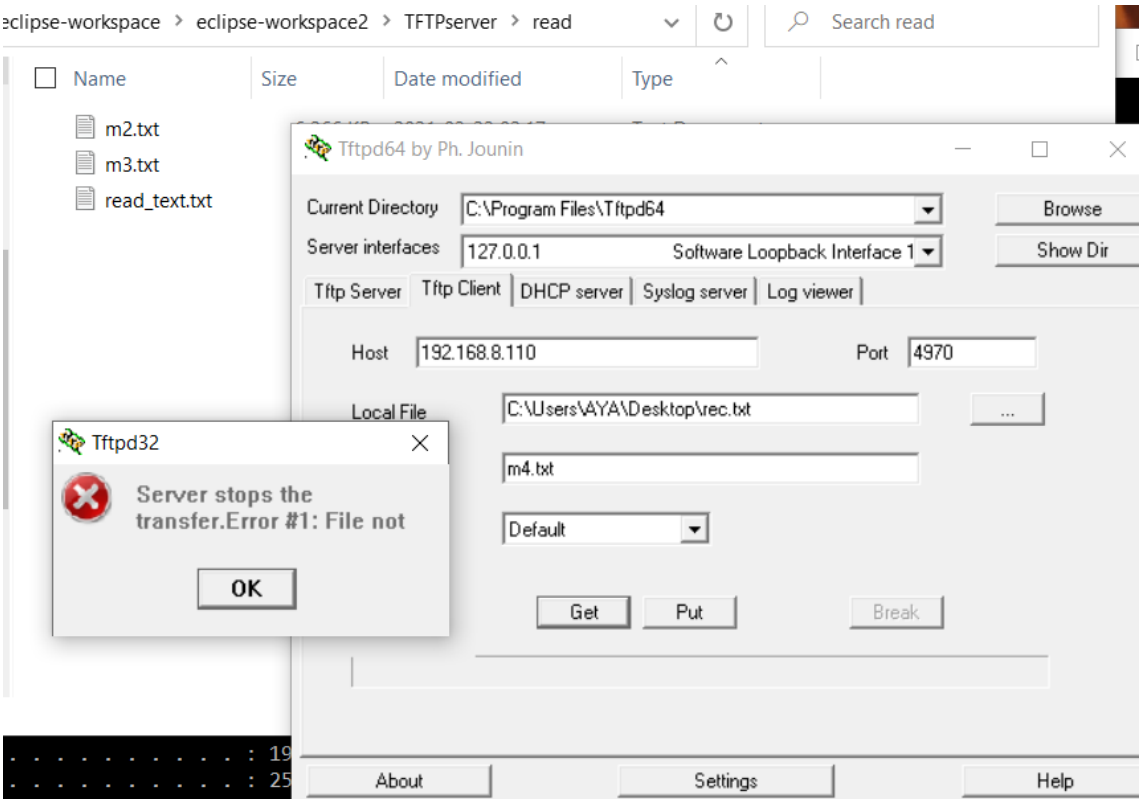

Figure 3.1 Send an error message to the client while entering a wrong file name.

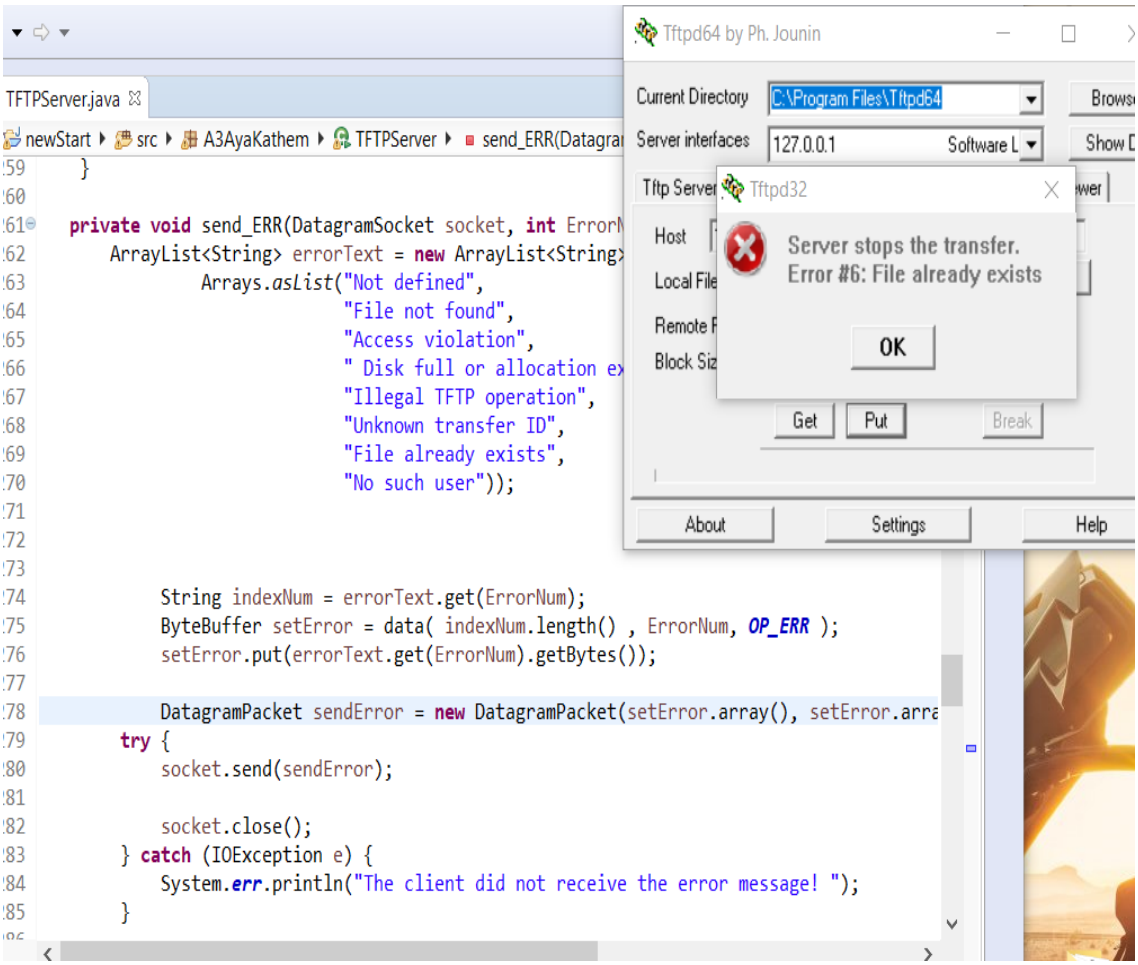

Figure 3.3 Send an error message if the client wants to make a write request to a file already exist.

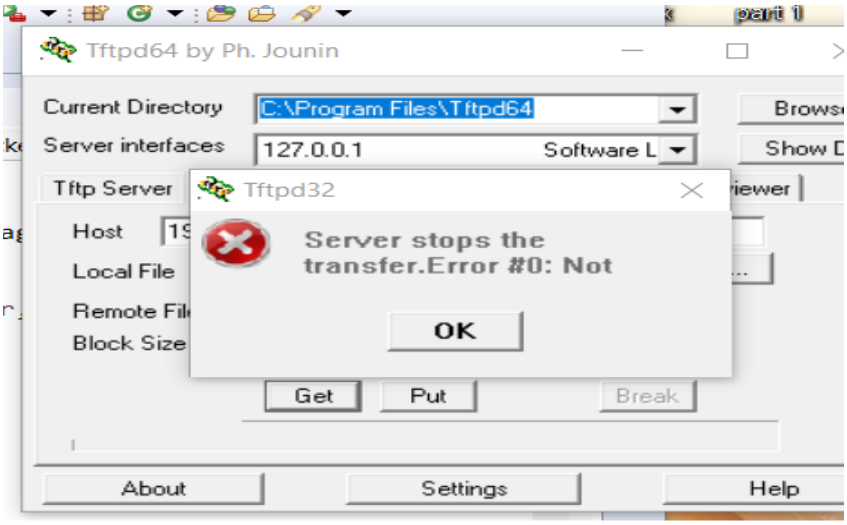

Figure 3.2 send error message not define if the occurred problem is unknown.