Linnéuniversitetet
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Report

Assignment 3

1DV701

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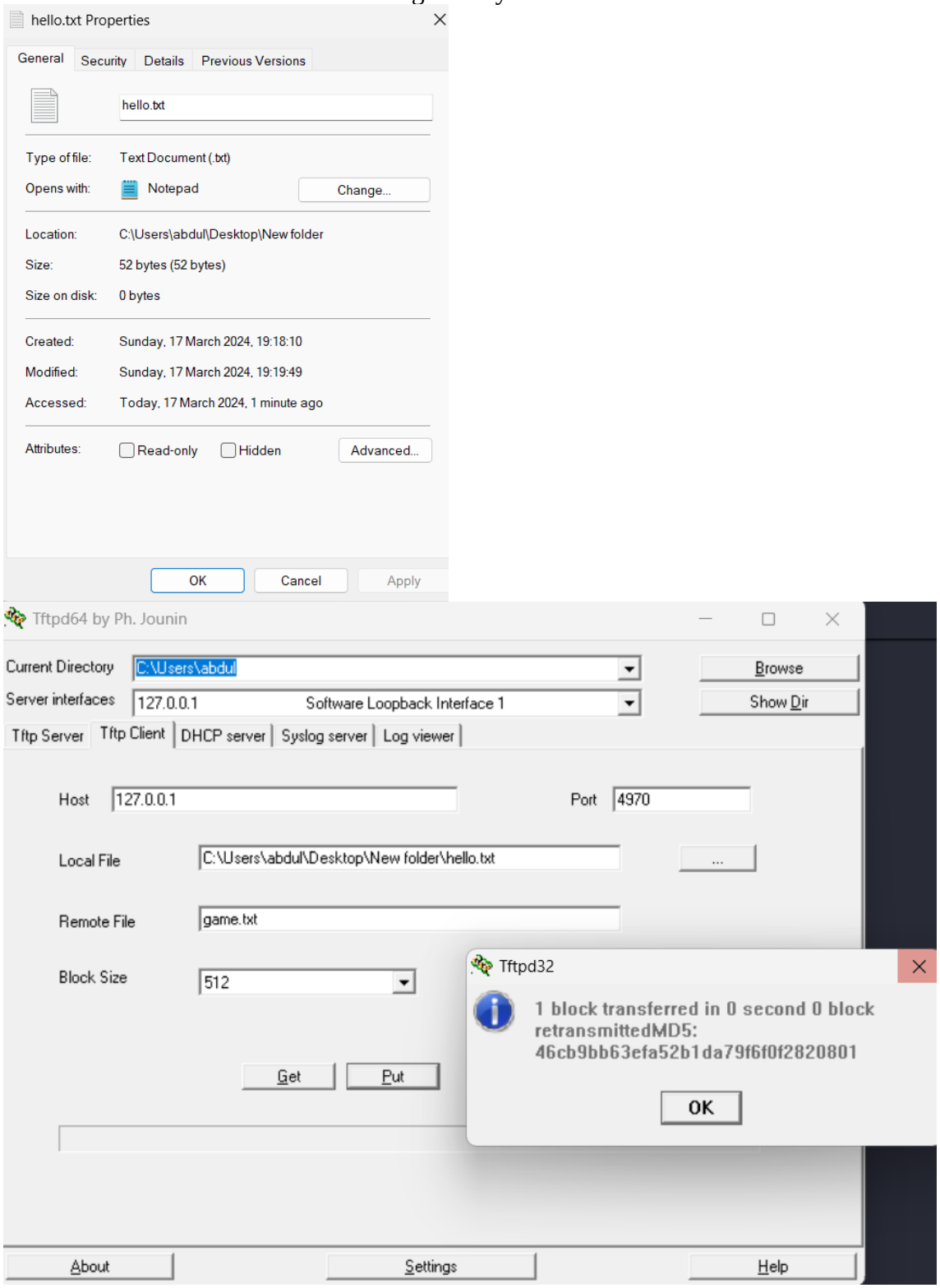
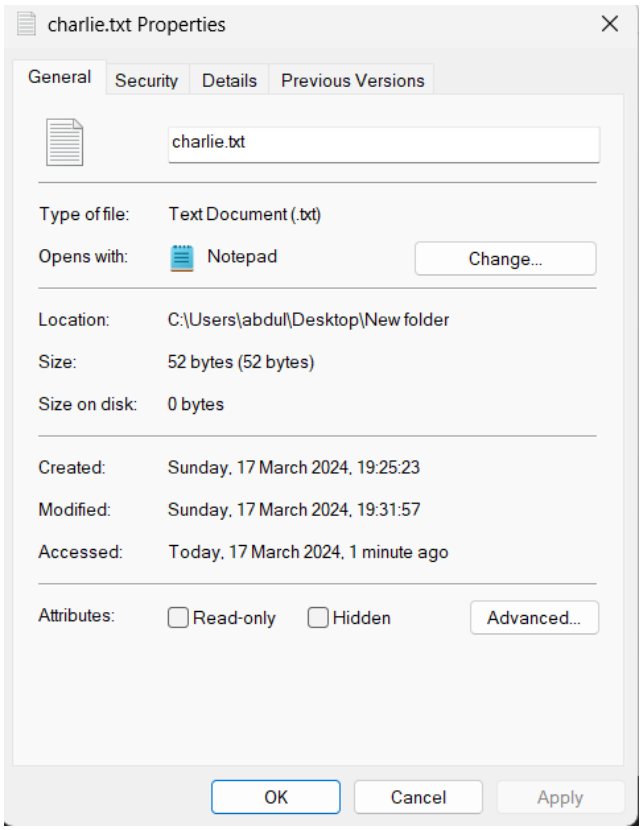
Contents

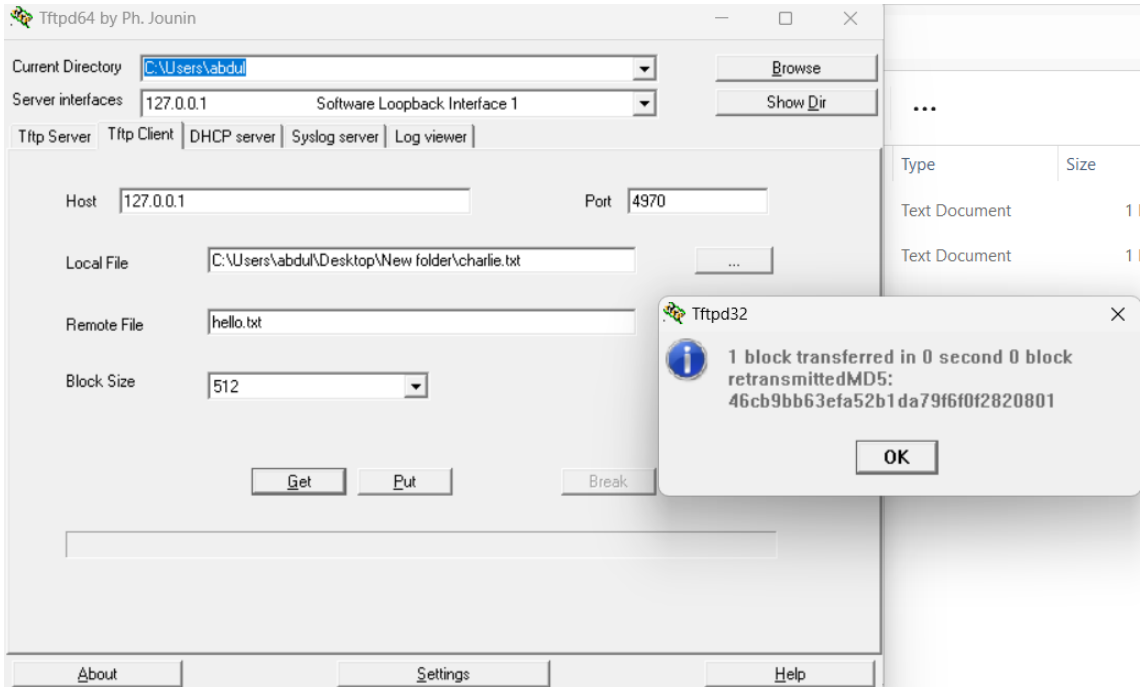
1 Problem 1

Here is the write method in action using a 52 byte file.



Here are screenshots of read method working with a 52 byte size file





1.1 Discussion

We use socket to receive the data from the clients, we use it in receiveFrom to listen for incoming packets while sendsocket is created for sending data to clients. Sendsocket is used in handleRQ to send data packets or ack packets to the client, we create a new sendsocket for each client request and is connected to the clients address and port.

So to solve the problem we first watched a couple videos on basic tftp knowledge to grasp the basic theory behind the problem and we also read through the tftp rfc 1350 to understand how packets are built and how their contents are structured. And then we tried to understand the provided code along with the tests to know what to put in the missing parts as well as any additional parts we had to implement. Then we worked and tried to make read work as intended by following the steps in the provided assignment sheet. When we got to that part we tried to understand how to distinguish datasockets, datapackets and inetsocketaddress. The following website: https://docs.oracle.com/en/ helped us understand said differences and made the read request implementation a lot simpler. And finally after trial and error with the application tftpd64 and our implementation we got the read request working. And as for the write method we tried think about how to implement it since it was the reverse of the read. The first thing we thougt about was to send data and ack packets instead of receiving them. So we created two new methods that lets us send the packets. After creating both methods we inserted them in the handleRQ, first we use the dataSendPacket to create the packet that is to be sent and inside that method goes the acknowledgePacket to see if the packet is good to send.