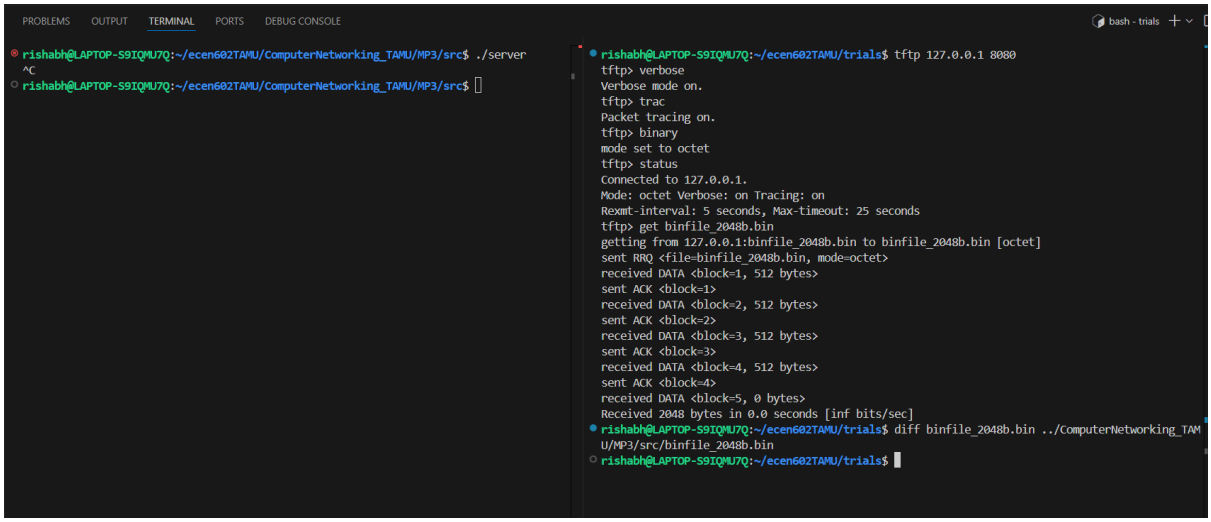
Trivial File Transfer Protocol (TFTP) Server over UDP

ECEN 602 Network Programming Assignment 3

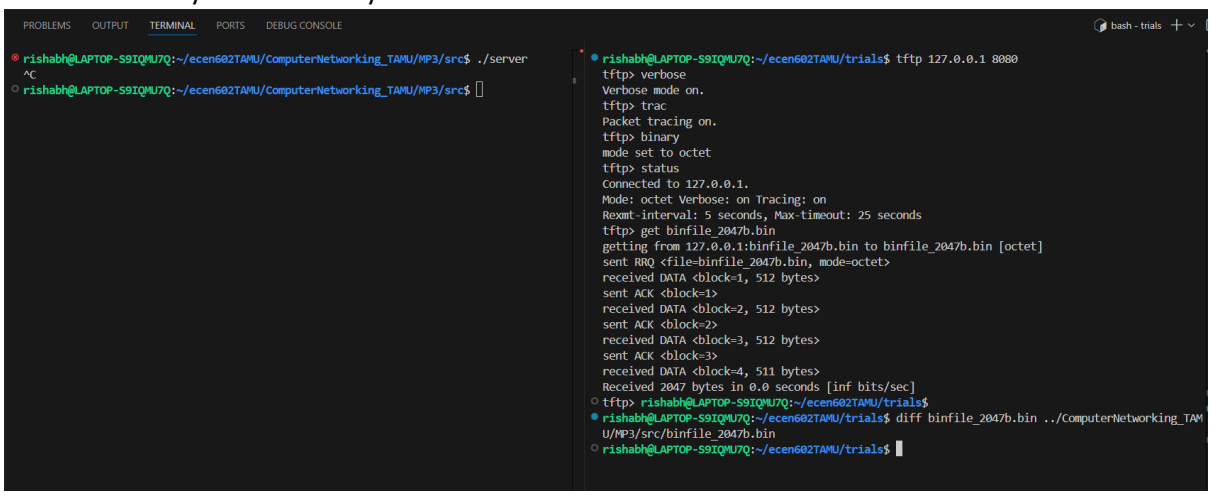
Team ID: 9

Below are the test cases performed on the TFTP Server over UDP:

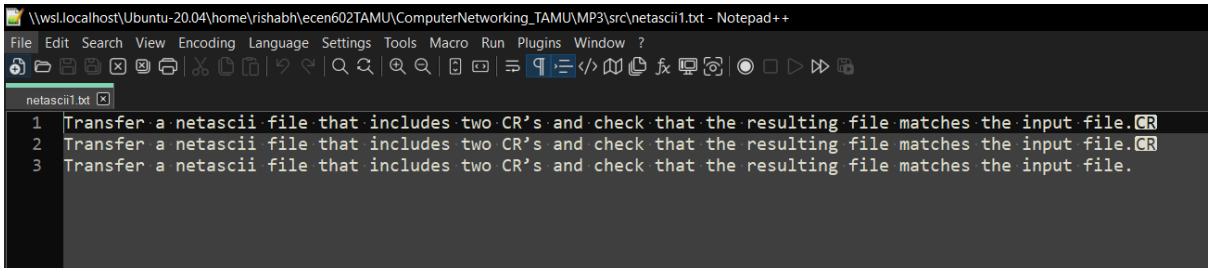
1. Transfer a binary file of 2048 bytes and check that it matches the source file.



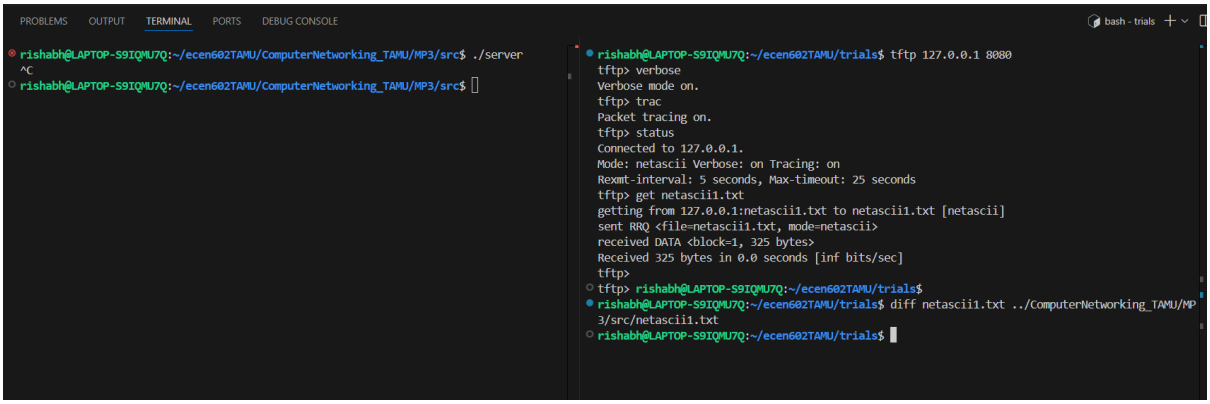
2. Transfer a binary file of 2047 bytes and check that it matches the source file.



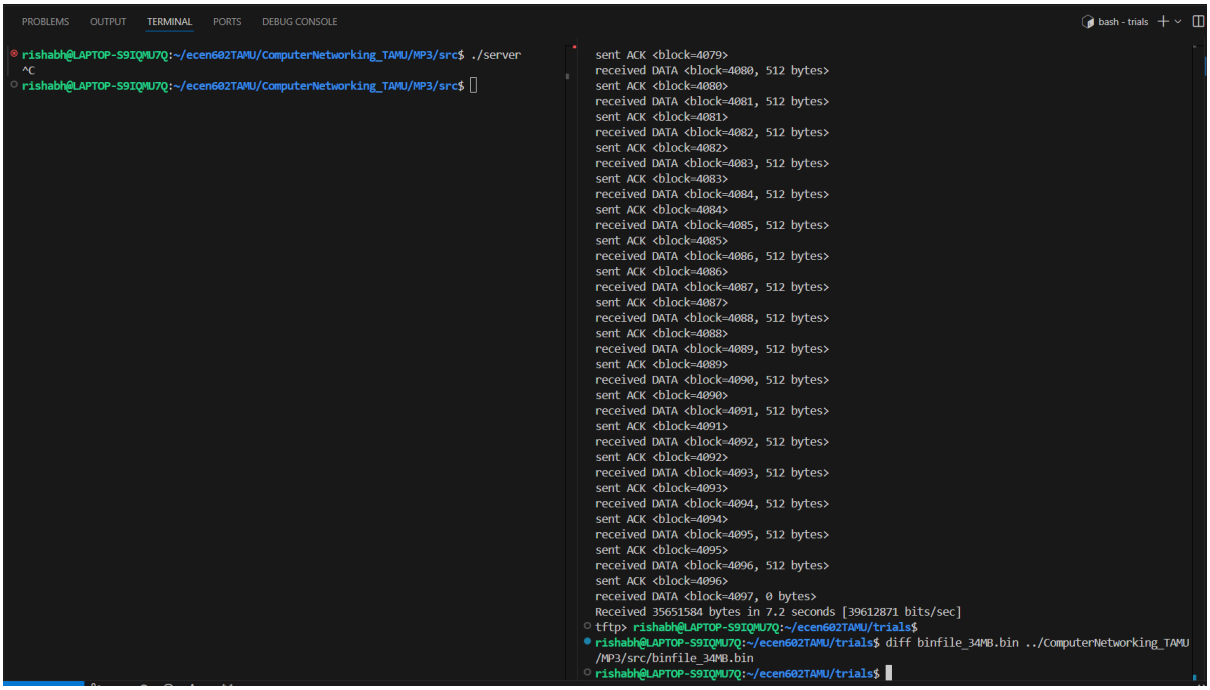
3. Transfer a netascii file that includes two CR's and check that the resulting file matches the input file. The netascii file is of 323 bytes and looks like below:



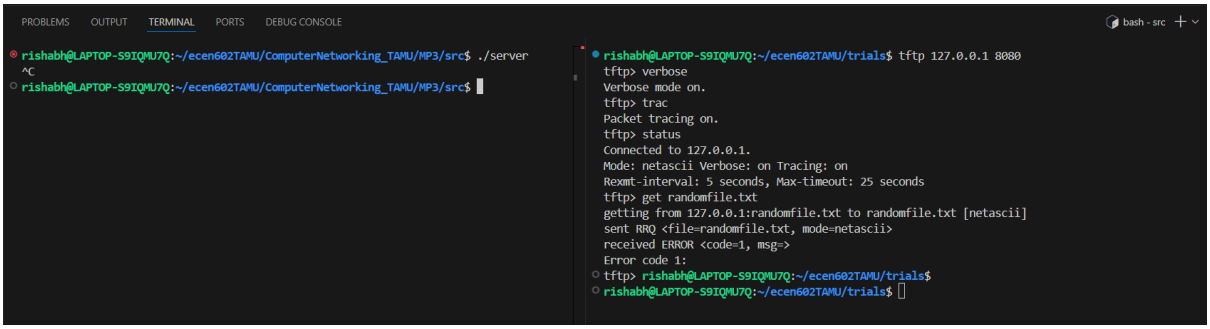
Below is the TFTP transfer result:



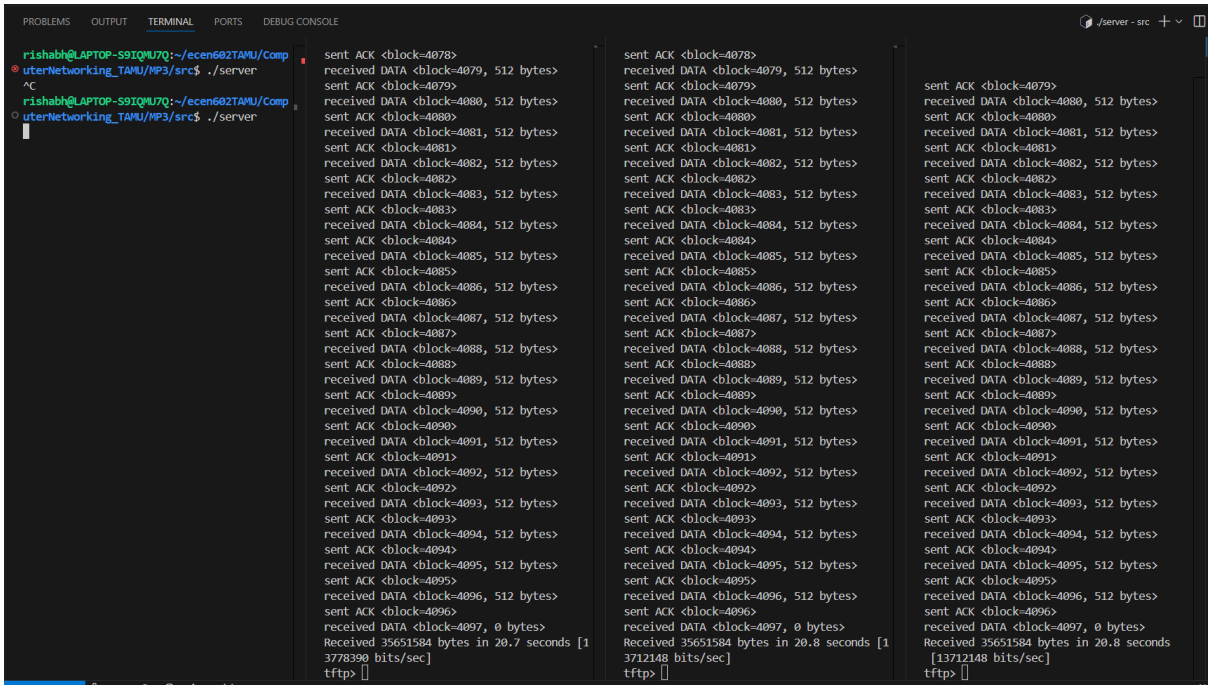
4. Transfer a binary file of 34 MB and see if block number wrap-around works:
   The block number for the DATA packets goes from 1 to 65535, and then wraps around to start from 1 and goes to 4097.



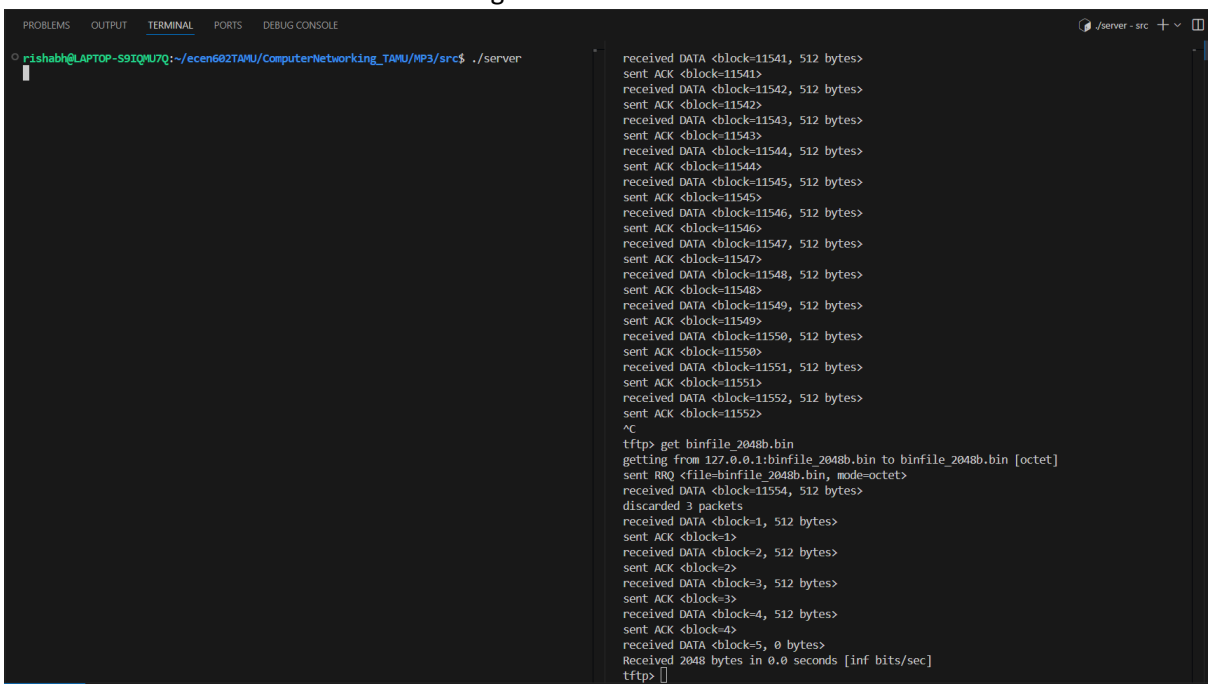
5. Check that you receive an error message if you try to transfer a file that does not exist and that your server cleans up and the child process exits.



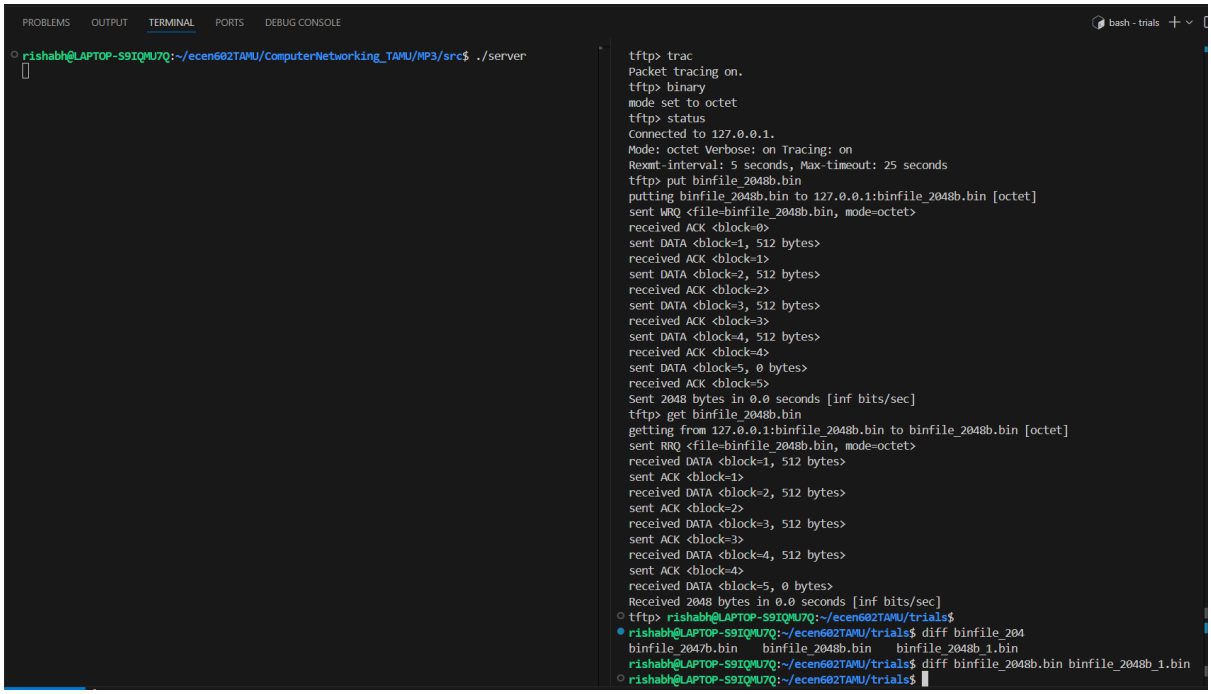
6. Connect to the TFTP server with three clients simultaneously and test that the transfers work correctly.



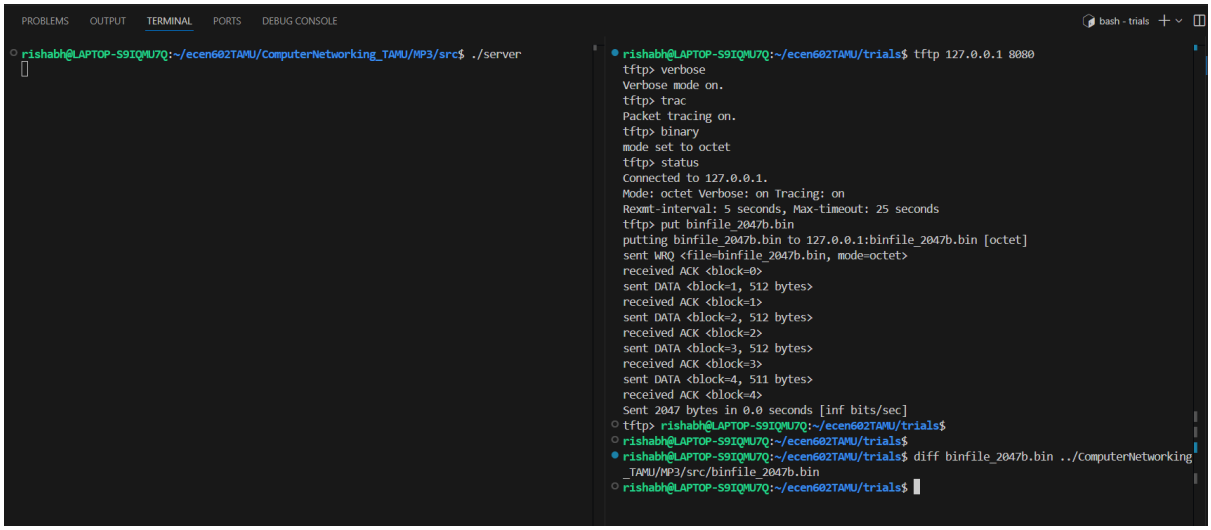
7. Terminate the TFTP client in the middle of a transfer and see if your TFTP server recognizes after 10 timeouts that the client is no longer there.



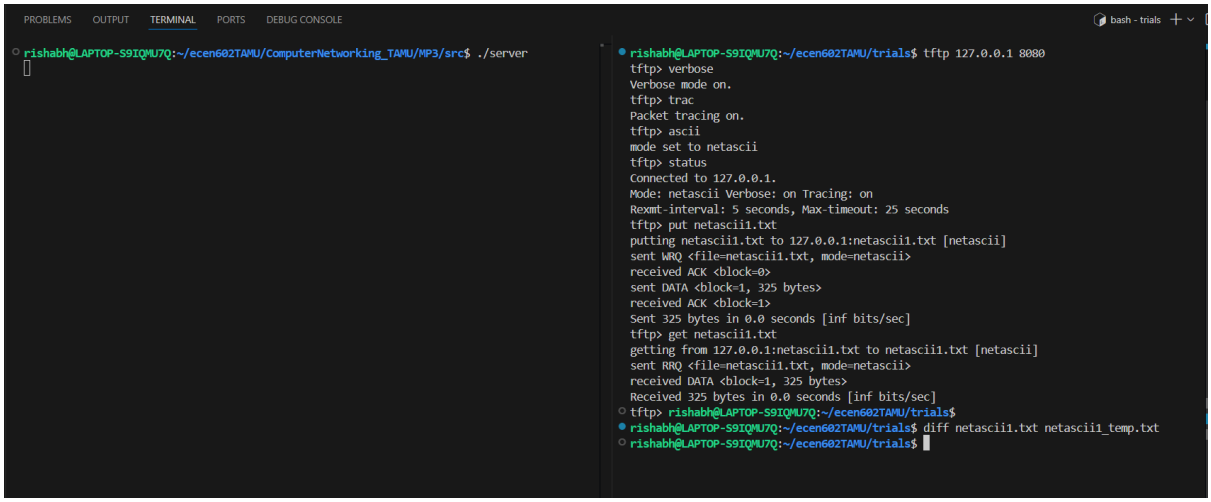
8. **Bonus Feature:** Transfer a binary file of 2048 bytes and transfer it back and then check that it matches the source file.



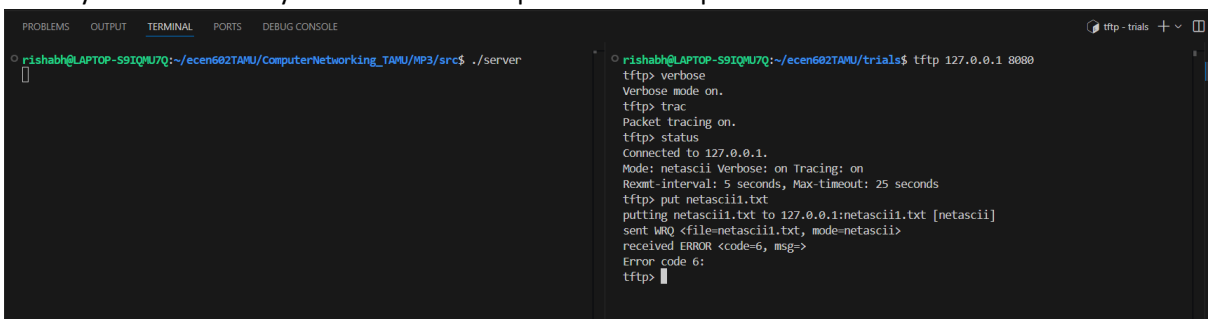
9. **Bonus Feature:** Transfer a binary file of 2047 bytes and check that it matches the source file.



10. **Bonus Feature:** Transfer a netascii file that includes two CR's and transfer it back, and then check that the resulting file matches the input file.



11. **Bonus Feature:** Check that you receive an error message if you try to transfer a file that already exists and that your server cleans up and the child process exits.



12. **Bonus Feature:** Connect to the TFTP server with three clients simultaneously and test that the transfers work correctly.