The basic functionality of this program required several simple test cases in order to make sure everything works as expected.1

1) Attempt to open with an invalid server name.

2) Test a basic connection and make sure it correctly connects to the remote machine.

3) Test netopen() and make sure it accesses the correct file with the proper permissions

4) Test netopen() with an invalid filename and make sure errno is set correctly

5) Test netread() and make sure that it correctly reads data from the expected file

6) Test netwrite() and make sure that it correctly writes data to the expected file

7) Test various invalid parameters for netread() and netwrite() to ensure that they correctly set errno

8) Ensure that netclose() closes the connection as expected

9) Send a large read or write over the buffer in order to make sure that the buffer can handle large amounts of data

10) Send a null read/write over the buffer in order to make sure it does not crash