Computer Networks Lab Assignment 11

1. Design a TCP Client Server Application to transfer files using TCP Socket in C or C++.

   Description: Create the following two files using C or C++:

   1. TCP_Server_File.c
   2. TCP_Client_File.c

   The TCP_Server_File.c file contains the code for the server side. Similarly, the TCP_Client_File.c file contains the code for the client side, which reads the text file and sends it to the server and TCP_Server_File.c file receives the data from the client and saves it in a text file.

   Implementation Details:

   Server Side:

   1. Create the socket using the Socket() system function.
   2. Bind the socket to the specific port number and IP address using Bind() system function.
   3. Start listening for the connections using Listen() [put the server socket in a passive mode, waiting for the client to approach the server to make a connection].
   4. Accept the connection from the client using Accept().
   5. Create a new file.
   6. Receive the data from the client.
   7. Write the data into the file.
   8. Stop the program.

   Client Side:

   1. Create the socket using the Socket() system function.
   2. Connect the newly created client socket to a server using Connect().
   3. Open the file.
   4. Read the data from the file and send it to the server.
   5. Close the socket using the Close() system function.
   6. Stop the program.