Project Objective

Development of Go back N ARQ, which is to be run on top of UDP sockets

How to use the code :-

Code tested on Python 2.7

Steps to Run the project .

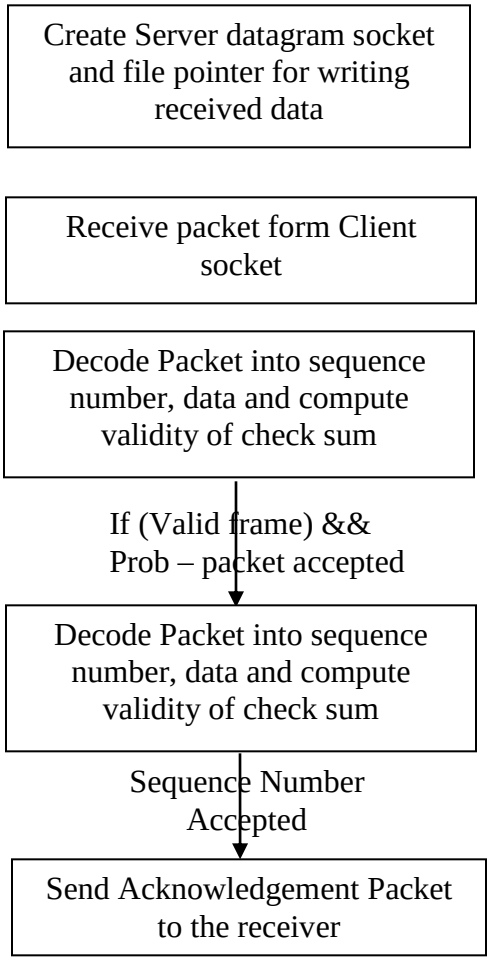
1. a) Put the server.py file located in the server directory on the host system .
   b) Run it first through the command line with the inputs
   python server.py <portno : 7735> <FIle name :server.txt> <probability :0.05 >
   example : python server.py 7735 'server.txt' 0.05

2. a) Run the client.py file located in the client directory on your system after knowing the server Ip address
python client.py <server ip > <server port :7735> <filename :client.txt> <N window size :10> <MSS :500>
example : python client.py 152.46.18.96 7735 'client.txt' 64 500

Note : Run step 1 and step 2 in the same order.
At the end of the program . clinet.py prints the time taken for executing the program

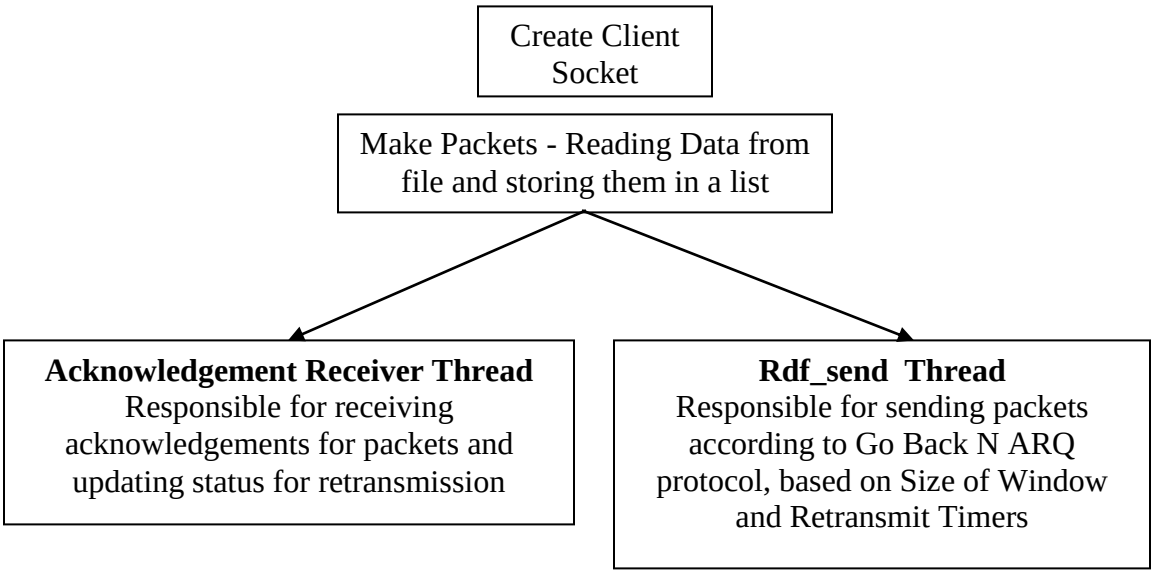
Code Structure :-

Server .py



Cilent.py

Role of this file is to read data from file and pack them into packets with relevant headers and transmit them reliably till the other end receives it. Go back N method is implemented here for retransmission of lost packets



Go back N protocol is implemented such that whenever there is a retransmission that has to happen because of packet loss, the whole set of N window packets are retransmitted irrespective of whether they have received or not.