UDP CLIENT-SERVER

1) OS Requirement - Linux

2) Software Requirements - g++

3) Compilation and Execution

   a) Server File
      i) Change the ip address and port no. of the server corresponding to your requirements .
      ii) For compilation use- g++ -o server udpserver.cpp
      iii) For executing run this command- ./server

   b) Client File
      i) Change the ip address and port no. of the client corresponding to your requirements.
      ii) For compilation use – g++ -o client udpclient.cpp
      iii) For executing run this command- ./client "server_ip" "port_no" "filename with extension"
      **Note – Order of command line arguments should remain same as mentioned above.

4) Working:
   a) File transfer from client to server.
   b) File name and size is sent from the client side before sending the actual file content.
   c) At server side the file is stored with the same name as received from the client.

5) Platform used on Ubuntu – 18.04

6) Testing Scenarios:

a) Tested file transfer between client and server present on the same machine.

b) Tested file transfer between client and server present on different machines but on the same network.

c) Tested server reachability in the beginning before sending the packets.

d) Tested if file does not exist at client side.

e) If client network drops while sending a packet then server waits for 20 seconds and after timeout the server resets.

f) If server network drops while receiving a packet then after timeout of 20 seconds the client gets error message that server is not responding.

7) File Size and extensions tested

FILE EXTENSION	FILE SIZE	TIME REQUIRED(approx.)
.txt	847 Bytes	1 sec
.cpp	4.7 kB	1 sec
.jpg	197 kB	1 sec
.mkv	249.5 MB	35 sec
.mp4	513 MB	1 min
.iso	2.0 GB	5 min