Programming Assignment 1

Introduction to Computer Networks

Cameron Mathis and Spencer Downey, Team 30

Report

Our UDP and TCP programs do work. First, you must input the files to the tux machines. In order to run the TCP programs, you must first compile myFirstTCPServer by typing *javac myFirstTCPServer.java* into the command line. Then, run myFirstTCPServer by typing *java myFirstTCPServer 10040* (10040 is our group’s port number. For any other group, just add the group number to 10010). Then, while myFirstTCPServer is running, compile myFirstTCPClient by typing *javac myFirstTCPClient.java* into the command line, and then run it by typing java myFirstTCPClient [IP Address] [String] [Port Number]. The IP Address should be the IP Address of the tux machine myFirstTCPServer is running on (which you can find by typing *curl ifconfig.me* into the command line), the String can be any string less than or equal to 255 character4s, and the port number is 10010 plus the group number. When the client is finished running, you can stop the server from running by pressing Ctrl + C.

In order to run the UDP programs, you must first compile myFirstUDPServer by typing *javac myFirstUDPServer.java* into the command line. Then, run myFirstUDPServer by typing *java myFirstUDPServer 10040* (10040 is our group’s port number. For any other group, just add the group number to 10010). Then, while myFirstUDPServer is running, compile myFirstUDPClient by typing *javac myFirstUDPClient.java* into the command line, and then run it by typing java myFirstUDPClient [IP Address] [String] [Port Number]. The IP Address should be the IP Address of the tux machine myFirstUDPServer is running on (which you can find by typing *curl ifconfig.me* into the command line), the String can be any string less than or equal to 255 character4s, and the port number is 10010 plus the group number. When the client is finished running, you can stop the server from running by pressing Ctrl + C.

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|  | **TCP** | **UDP** |
| **Min** | 420810 ns | 1870747 ns |
| **Average** | 523916 ns | 1930802 ns |
| **Max** | 634679 ns | 1998978 ns |