

MP5 – CSCE 313

Ryan Walters

Garrett Haynes

Introduction:

In this machine problem we added in functionality to facilitate messaging over a network using sockets. To do this, we modified the RequestChannel class to become the NetworkRequestChannel class with new logic based on the socketdemo provided to us.

Result:

The result of running the program can be seen in the following screenshot:

```
Finished!

-----
                Statistics
-----
Data requests per person: 1000
Size of bounded buffer:   200
Worker threads:           3
Run Time:                  11.49s

-----
                Histogram
-----

Histogram for Person 0: Joe Smith
  0-9  10-19  20-29  30-39  40-49  50-59  60-69  70-79  80-89  90-99
   96    119    92    95    91    104    102    88    103    110

Histogram for Person 1: Jane Smith
  0-9  10-19  20-29  30-39  40-49  50-59  60-69  70-79  80-89  90-99
  119    92    93    97    88    106    107    96    97    105

Histogram for Person 2: John Doe
  0-9  10-19  20-29  30-39  40-49  50-59  60-69  70-79  80-89  90-99
   85    99    88    104    109    100    120    110    92    93

Discovery:CSCE 313 ryan$
```

Conclusion:

Measure performance:

In our tests, we concluded that the amount of clients and size of the backlog buffer will effect the performance of the program. We tested this by running multiple instances of the client, connecting to a single instance of the dataserver. In our tests, we found that if the backlog is too small, the programs will not properly execute as they are not able to make/receive the necessary requests. Increasing the backlog amount seemed to solve this issue.