CS425 MP0 Report: Event Logging

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Repository URL: https://gitlab.engr.illinois.edu/yuhangr2/ece428_mp1_yuhangr2.git
Commit SHA: 19b337f718773aa52e4ff0e574d7cce809425516

Instruction on how to run my code:
I used Python to complete this MP. Following are the steps to run my code:
1. Clone the repository to VM clusters.
2. Choose one VM as the server. Run "python3 logger.py 1234" in the repository folder.
3. For a certain number of clients, run "python3 -u generator.py rate | python3 node.py node_name address port", where rate, node_name, address and port should be replaced with appropriate values. For example, "python3 -u generator.py 5| python3 node.py node3 172.22.94.128 1234". The nodes would stop automatically after running for about 100 seconds.

Ways to measure delay and bandwidth:
Delays are calculated by subtracting the time of an event from the time the server prints the event message. In each thread, delays are written into a file called delay.txt, along with its current time.
Bandwidths are calculated using number of bits per second. For each message, the message time and length are written into a file called delay.txt. To get the bandwidth for 1-second units, I added all message lengths within every 1-second interval to find the total number of bits in each second.

Graphs of evaluations: