Running The Program

Run the test via "mix test" **(Note:** although the tests should work every time, there are odd issues in the testing framework causing our solution not to compile right during the testing process. This is incredibly rare and if it does happen one should simply run the tests provided again. This shouldn't be an issue, but again, if it is than simply contact us.)

Overview

We created up to 100,000 nodes and were able to send messages between them within 25s of publishing from one node. In addition, we created an identical system in Python's Django and were only able to achieve 1000 simultaneous connections on a $5/mo AWS server. Granted we probably could have done better, but a time crunch was a real thing and given the restrictions we feel that an application able to deliver 10x the performance of an industry-standard system isn't too bad (It simply became a matter of having the funds to expand and test, which we didn't). The rest of our test cases assure the performance of our functionality and will be obvious based on the code body.