18CS621: Distributed Systems
Lab Assignment: Communication

Implement the following communication methods using Golang, and test some functionalities in your chosen application. You should demonstrate the communication between different processes and if you can demonstrate it across machines that would be a bonus. Each member to choose one protocol, but you can work as a team to discuss.

Submit individual submissions with the fully executable code for your part, explanation of your implementation and sample output screenshots. Give documentation to run your code so that the evaluators can can test it in their local machines.

1. RPC (Do not directly use existing RPC packages, but implement your own)
   1. Demonstrate client sending remote procedure request and server returning the result to the client stub.
   2. Implement one of the variations and demonstrate the same. Demonstrate the differences between the chosen variation and basic RPC.
2. Message Oriented Communication and Sockets
   1. Demonstrate the functioning of this protocol and explain the advantages over RPC.
3. Publish Subscribe Communication: Have publishing node(s), and few subscribing clients and demonstrate the communication.