Project 1: Report

Intro

The PingClient sends a PingRequest to the PingServer. The PingApplication instantiated in the PingServer makes a new PongReply with the same value as the PingRequest message and the PingSever sends it back to the PingClient. There is also a timer set for each PingRequest sent from client and a resend will occur when the timer count becomes 0 and the reply hasn't reached the client.

Flow of Control & Code Design

Flow of Control

PingClient sends a PingRequest to the server then the PingApplication in the PingServer creates a PongReply which the PingSever sends back to PingClient. PingClient resends every time a timer reaches 0 for each PingRequest until PongReply is not null.

Code Design

Several classes and interfaces are used for the design. Interfaces such as Client, Message, Application are used to implement PingClient, PongRequest/Reply, PingApplication respectively. Class Node is extended by PingServer. PingTimer extends the Timers interface.

Design Decisions

Followed the document for the code.

Missing Components

None.

References

https://github.students.cs.ubc.ca/CPSC416-2022W-T2/project1-intro/tree/main/lab

Extra (Optional)