CIS505 - JAM

Private

Milestone Submission

Milestone 1 - Design Protocol & Specs

Mar 28 BA  

Milestone 2 - Demo basic features

Apr 11 BA  

Final Milestone

Apr 24 BA  

Final Demonstration

Apr 25 BA  

Notes

March 27 thingie

7

NOTE: Each sub-task comes with test/docs responsibilities.

Issues/Bugs tracker

Consider event programming for intermodule communication

Main integration

Set-up main project structure (CMake, Makefile, structure, template, etc.)

Mar 30

Implement basic thread spawning to start-up each module.

Apr 3

Implement inter-communication between modules (threads or pipes).

Apr 6


User Handler

Implement receiving messages from stdin and passing them onto the Communication Module.

Apr 1

Implement receiving message from Communication Module and display on stdout.

Apr 2

Communication Module

Implement expose API for other modules to forward message to UDP wrapper (no need total-ordering).

Apr 6

Implement handler for message from UDP wrapper - such as deliver to correspond module, etc. (no need total-ordering).

Apr 7

Implement total-ordering logic in send-message (acquire current leader from Leader Manager, decide order/send to current leader if needed).

Apr 11

Implement hold-queue and deliver algorithm in hold-queue.

Apr 13

BA

Attach hold-queue to Communication Module and algorithm to process incoming message.

Apr 15

Leader Manager

Implement simple API expose to return current leader as group started client.

Apr 6

Implement the election algorithm for multiple clients.

Apr 16

Implement periodically pinging the leader and start an election if leader crash detected.

Apr 18

Client Manager

Implement internal list for holding all known clients with exposed API to return the list.

1 Apr 6 **BA**

Implement notification function to call Communication Module whenever client joins/leaves chat group.

1 Apr 7 **BA**

Implement handler when receiving join/leave notification from other clients & crash notification from UDP wrapper and distribute to all known clients.

Apr 11 **BA**

UDP wrapper

Implement UDP non-blocking wait for sending message (request from Communication Module), waiting ACK from receiver, retrying if timeout and notifying back if max retries reaches.

Apr 6 

Implement UDP non-blocking wait for incoming message, sending ACK back to sender and forwarding message to Communication Module.

Apr 7