

Project 1: Test cases

From Scratch Pub Sub Implementation

Client - Server communication

1. Does the RMI registry get started at port 5000 at the group-server? PASS
2. Can the client get the group-server handle ? PASS
3. Is the client able to register with the group-server? PASS
4. Is the client able to leave the group-server? PASS
5. Is the client able to subscribe to a topic? PASS
6. Is the client able to subscribe using a malformed article string? FAIL
7. Is the client able to subscribe to multiple topics? PASS
8. Can the client subscribe to the same topic twice? PASS. The server only notes it down once.
9. Can the client publish? Does every client subscribed to the article get the published article?
PASS. If another client subscribes and unsubscribes (to the article published by another client) immediately, it is possible that it will or will not receive the article depending upon which thread ran first on the server side.
10. Can a client leave the server? PASS
11. Can a client who has left the server subscribe to a topic? FAIL
12. Can a client who has left the server publish an article? FAIL
13. Can a client publish a article with a malformed string? FAIL
14. Does the ping work as intended? PASS.

Registry Server (RS)- Server Communication:

1. Can the server register with the local test server port 5104 ? PASS
2. Can the server register with the dio.cs.umn.edu port 5105 ? PASS
3. Can the server register after a deregister to test server ? PASS
4. Can the server register after a deregister with the prod server ? PASS
5. Can the server get a list of servers available on RS ? PASS
6. Can the server get a list of servers on prod server RS ? PASS
7. Does the server get the heartbeat on test RS ? PASS
8. Does the server get heartbeat on prod RS ? PASS
9. Does intermixing the getLists cause no issue with test server ? FAIL
10. Does intermixing the getLists with prod RS work ? FAIL
11. Does deregister work as expected with the test server ? PASS
12. Does deregister work as expected on prod RS ? PASS
13. Does the heartbeat sustain without mixing on the test RS ? PASS
14. Does the heartbeat sustain on the prod RS ? FAIL
15. Does the client and server communicate post the RS register ? PASS
16. Does the client know if registered server is deregistered ? FAIL
17. Does the heartbeat sustain on prod RS without GetList ? PASS

18. Does the timeout cause a new getList to fail ? PASS
19. Does post timeout cause deregister to fail ? PASS
20. Does post timeout register work fine ? PASS

Google Pub Sub Implementation test cases:

1. Join: Does a client join the server ? PASS
2. Join: Do multiple clients join the server ? PASS
3. Join: Changing the proj ID to a random number and creating a client throw err ? PASS
4. CreateTopic: Can a single client creates a new topic ? PASS
5. CreateTopic: Attempting to create an existing topic throws an error ? PASS
6. CreateTopic: Multiple clients create the same topic throw error ? PASS
7. Subscribe: Can a single client subscribe to an existing topic on server ? PASS
8. Subscribe: Can multiple clients subscribe to an existing topic on server ? PASS
9. Subscribe: Does single client subscribing to an non existing topic fail ? PASS
10. Subscribe: Do all the clients fail on subscribing to topics not on the server ? PASS
11. Publish: Can a client publish to an existing topic ? PASS
12. Publish: Can a client not subscribed to a topic publish to the server ? PASS
13. Publish: Can multiple clients publish to the server without an err ? PASS
14. Publish: Can same client publish multiple time to the same topic ? PASS
15. Publish: Can same client publish to more than one topic multiple times ? PASS
16. Publish: Can multiple clients publish to more than one topic multiple times ? PASS
17. Unsubscribe: Can a client unsubscribe from a topic normally ? PASS
18. Unsubscribe: Can multiple clients unsubscribe from a topic without err ? PASS
19. Unsubscribe: Does unsubscribe from a non existing topic return an err ? PASS
20. Unsubscribe: Does subscribe and unsubscribe in succession not be affected ? PASS
21. Unsubscribe: Does calling subscribe immediately after unsubscribe go through ? PASS
22. Consume: Does the published messages get consumed by single subscriber ? PASS
23. Consume: Does published messages to multiple topics get consumed by single subscriber ? PENDING
24. Consume: Does unsubscribe client still receive the message ? PASS