Lab 2 – Pygmy – The world's smallest bookstore.

Description of tests

There were 3 scenarios to be considered to verify the correctness of the system. All test cases had to run successfully on all the 3 scenarios. The scenarios were:

1) All servers run on a single machine, single buyer.
   The test cases for this scenario are in SingleServerSingleClient.sh file.

2) All servers run on a single machine, multiple parallel buyers.
   The test cases for this scenario are in SingleServerMultiClients.sh file.

3) All servers run on diff machines, multiple parallel buyers.
   The test cases for this scenario are in MultiServerMultiClients.sh file.

In all the above 3 scenarios, we run the below 5 test cases:

1) Launch a client and do a lookup for ID 1. This should succeed as catalog contains a book with this ID.
2) Launch a client and do a lookup for ID 5. This should fail as catalog does not contain a book with this ID.
3) Launch a client and do a search for books related to "distributed systems" topic. This should succeed.
4) Launch a client and do a search for books related to "machine learning" topic. This should fail.
5) This test case has multiple steps:
   a. Launch a client and do a lookup for ID 2. Store the count returned.
   b. Launch a client and do a buy for ID 2. This should succeed.
   c. Launch a client and do a lookup for ID 2. The count returned should be less than the count returned in a) by 1.

Known issues:

We have observed that while running the test cases, sometimes the "`sudo pip3 install -r temp_$i/Lab-2-Pygmy-The-book-store/requirements.txt 1>/dev/null 2>&1`" fails. This is setup dependent, works in some cases and fails in some cases.

If a user happens to see this issue, please install the requirements manually on all the servers, and remove the "`sudo pip3 install -r temp_$i/Lab-2-Pygmy-The-book-store/requirements.txt 1>/dev/null 2>&1`" command in the run.sh file on line 69, and re-run the test cases.