Running replicated postgres exp:

Cloudlab experiments uses 4 machines (only 3 are actually used) - 2 servers: one serves as primary and one as replication. 1 client machine is used.

On your local machine (steps 1-3):

1. Go to “src” folder
    a. cd /Pequin-Artifact/src (or wherever your code is)
2. Generate the benchmark data and upload it to the experiment server.
    a. ./generate_benchmark_data.sh -n 20 (args change based on benchmark)
    b. ./upload_data_remote.sh
3. Copy postgres replication set-up scripts to the machines. Script should be configured with experiment name, user name, cluster, and project name. List of server may also need to be adjusted.
    a. ./scripts/init_postgres_replicated.sh -p (copies primary scripts)
    b. ./scripts/init_postgres_replicated.sh -r (copies replica script)

4. Log on to the primary server machine using ssh and then set up primary. (running from home dir. I.e., from ~)
    a. ./postgres_primary.sh
    b. /usr/lib/postgresql/12/bin/pg_ctl -D ~/primary/db start
    c. ./postgres_primary2.sh
5. Log on to a replica server machine using ssh and then set up replica. (running from home dir. I.e., from ~)
    a. ./postgres_replica.sh

Back on local machine:

6. python3 ~/Pesto/Pequin-Artifact/experiment-scripts/run_multiple_experiments.py "/home/sc3348/Pesto/Pequin-Artifact/testing/sql/PG-TPCC.json"

Clean for the next experiment:

7. On replica machine:
    a. /usr/lib/postgresql/12/bin/pg_ctl -D ~/replica/db stop
8. On server machine:
    a. /usr/lib/postgresql/12/bin/pg_ctl -D ~/primary/db stop
    b. sudo umount primary

Notes:

1. On “~/Pequin-Artifact/src/store/postgresstore/client.cc” - the connection path should be adjusted to match the experiment information.
2. For other benchmarks steps are exactly the same, changes are required in steps 2 and 6 (generating information and experiment configuration file).
3. Experiment config file should be modified with the relative information.