Experiment List

1. **Throughput and transaction reject rate vs Number of transactions in a block:**
    a. Measure the average time taken for a transaction to commit .
    X-axis - Transactions: 1000 to 5000
    Y-axis - Average Time taken for a transaction to commit
    Dependency: 40%
    # of threads: 32
    # Cluster size 5 or 3
    Curves: Original fabric, Proposed Fabric, proposed Fabric with cluster 1

    b. Measure the reject rate per transaction
    X-axis - Transactions: 1000 to 5000
    Y-axis - Number of times a transaction is rejected before it is committed
    Dependency: 40%
    # of threads: 32
    # Cluster size 5 or 3
    Curves: Original fabric, Proposed Fabric, proposed Fabric with cluster 1

2. **Throughput and transaction reject rate vs Dependency in a block:**
    a. Measure the average time taken for a transaction to commit
    X-axis - Dependency: 0% to 50%
    Y-axis - Average Time taken for a transaction to commit
    # of transactions: 1000
    # of threads: 32
    Curves: Original fabric, Proposed Fabric, proposed Fabric with cluster 1

    b. Measure the reject rate per transaction
    X-axis - Dependency: 0% to 50%
    Y-axis - Number of times a transaction is rejected before it is committed
    # of transactions: 1000
    # of threads: 32
    Curves: Original fabric, Proposed Fabric, proposed Fabric with cluster 1

3. **Throughput and transaction reject rate vs Number of threads in a block:**
    a. Measure the average time taken for a transaction to commit
    X-axis - Threads: 1 to 32 in the powers of 2
    Y-axis - Average Time taken for a transaction to commit
    # of transactions: 1000
    # of threads: 32

Dependency: 40%
Curves: Original fabric, Proposed Fabric, proposed Fabric with cluster 1

b. Measure the reject rate per transaction
X-axis - Threads: 1 to 32 in the powers of 2
Y-axis - Number of times a transaction is rejected before it is committed
# of transactions: 1000
# of threads: 32
Dependency: 40%
Curves: Original fabric, Proposed Fabric, proposed Fabric with cluster 1

4. **Throughput and transaction reject rate vs Size of the cluster:**
   a. Measure the average time taken for a transaction to commit .
   X-axis - cluster size: 1,3,5,7
   Y-axis - Average Time taken for a transaction to commit
   Dependency: 40%
   # of threads: 32
   # Cluster size 5 or 3
   Curves: Original fabric, Proposed Fabric, proposed Fabric with cluster 1

   b. Measure the reject rate per transaction
   X-axis - cluster size: 1,3,5,7
   Y-axis - Number of times a transaction is rejected before it is committed
   Dependency: 40%
   # of threads: 32
   # Cluster size 5 or 3
   Curves: Original fabric, Proposed Fabric, proposed Fabric with cluster 1

5. Response Time [for 1 txn, what is total time taken for it to go from client to committer] vs Transactions without retries
   a. Measure the overall average response time taken for a transaction to commit or abort.
   X-axis - Transactions: 1000 to 5000
   Y-axis - Overall Average Response Time taken for a transaction to commit or abort
   Dependency: 40%
   # of threads: 32
   Curves: Original vs Proposed Fabric

   b. Measure the commit response time taken for a transaction.
   X-axis - Transactions: 1000 to 5000

Y-axis - Overall Average Response Time taken for a transaction to commit or abort
Dependency: 40%
# of threads: 32
Curves: Original vs Proposed Fabric

c. Measure the abort response time taken for a transaction to commit or abort.
X-axis - Transactions: 1000 to 5000
Y-axis - Overall Average Response Time taken for a transaction to commit or abort
Dependency: 40%
# of threads: 32
Curves: Original vs Proposed Fabric