Performance Report

As we increase the number of instances of both buyer and seller, the response time starts increasing and the throughput starts to decrease. It could happen due to multiple factors like network congestion, server processing limits, and database access bottlenecks. Each client instance consumes resources (CPU, memory, network bandwidth) on the server, leading to longer processing times for each request as the system becomes saturated. Additionally, simultaneous database access requests can lead to contention, further slowing down response times. Optimizing system architecture, increasing server capacity, and implementing efficient data handling techniques can help mitigate these issues.

Scenario 1 - 1 instance of seller

- **Login**
    - Response Time - 0.002 secs
- **Get Rating**
    - Response Time - 0.019 secs

Throughput - 117 operations/sec

Scenario 1 - 1 instance of buyer

- **Login**
    - Response Time - 0.002 secs
- **Display**
    - Response Time - 0.019 secs
    - Throughput - operations/sec

Throughput - 43 operations/sec

Scenario 2 - 10 instance of seller

- **Login**
    - Response Time - 0.036 secs
    - Throughput - operations/sec
- **Get Rating**

    - Response Time - 0.035 secs
    - Throughput - operations/sec

Throughput - 189 operations/sec

Scenario 2 - 10 instance of buyer

- **Login**
    - Response Time - 0.038 secs
    - Throughput - operations/sec
- **Display**
    - Response Time - 0.039 secs
    - Throughput - operations/sec

Throughput - 68 operations/sec

Scenario 3 - 100 instance of seller

- **Login**
    - Response Time - 2.33 secs
- **Get Rating**
    - Response Time - 2.41 secs

Throughput - 451 operations/sec

Scenario 3 - 100 instance of buyer

- **Login**
    - Response Time - 2.5 secs
- **Display**
    - Response Time - 0.019 secs

Throughput - 270 operations/sec