Large Scale Distributed Systems

Lab 5

2022/2023

Consistent hashing

Implement a consistent hashing with the lin-kv workload.

Steps

- 1. Start with a simple key-value server where each node keeps all keys.
- 2. Configure each node with a random id and a static routing table. Forward requests to the corresponding server.
- 3. Configure each node with multiple ids. Retest and compare the number of items stored.

Learning Outcomes Apply consistent hashing for data partitioning. Recognize the advantages for distributed systems of consistent hashing and virtual nodes.