

Movie Retrieval System based on Video Ranking

Group 12

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Motivation & Goals

- **Motivation:** To design a system for movie retrieval, it's very important to have a **scalable system** to distribute requests to different machines. Take **Netflix** for example, it is impossible for this website to merely use one machine to deal with thousands of requests.
- **Goals:** Our goal is to design a **movie retrieval system**. We would simulate movie retrieval system from scratch without using any load balancing module. **Load balancer** and **servers** would be simulated to test the proposed architecture.

Related Work

Cygnus Load Balancing

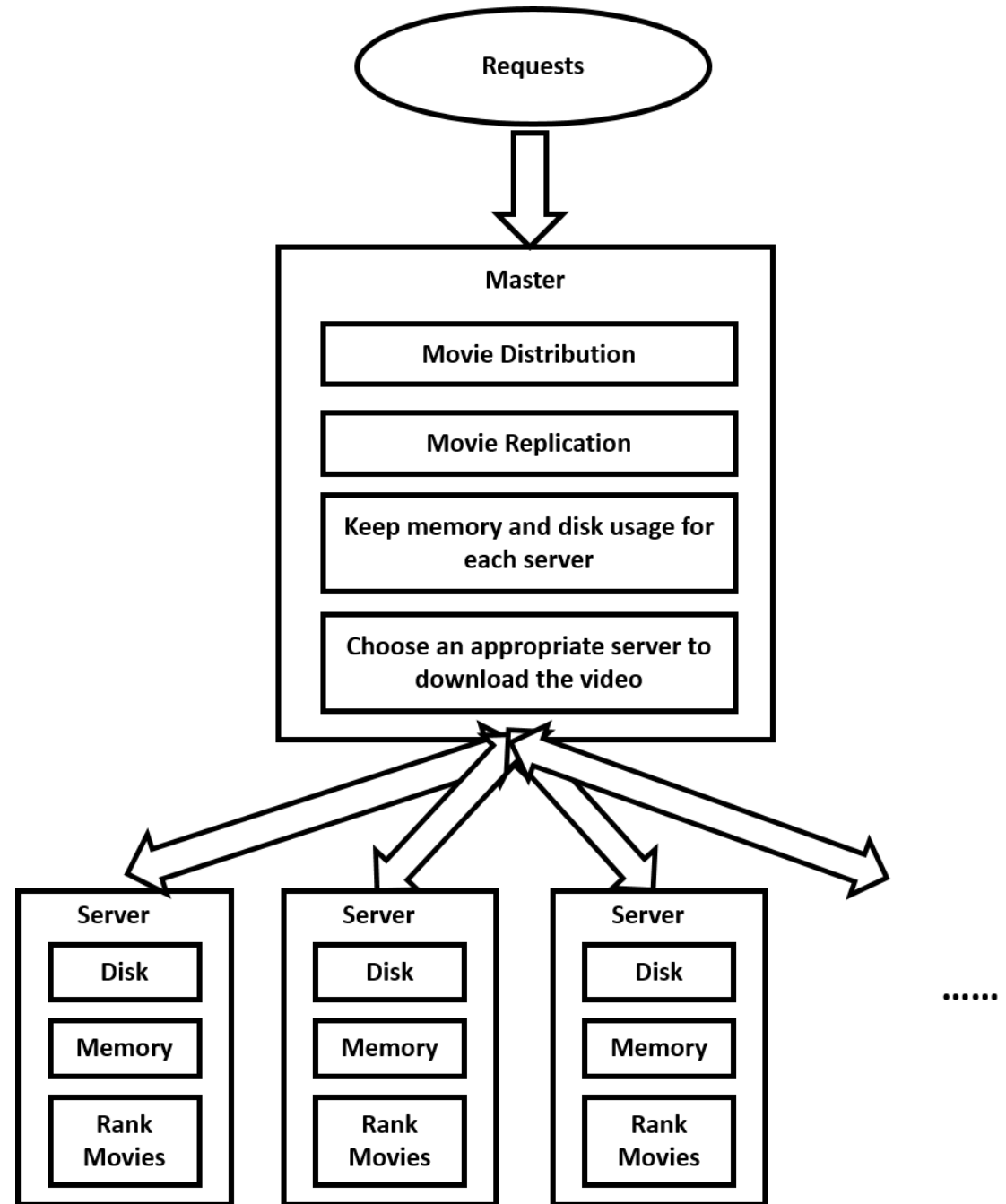
- **Load Balancer** would help to make load balancing decisions.
- **Load analyzer** would decide which server to receive the request.

Ribbon

- Part of **Netflix** Open Source Software family and provides software load balancers to communicate with cluster of servers.
- Ribbon could be departed as three components:
 - Rule: make a determination to which server to return from a list based on **algorithms**.
 - Ping: check whether a server is **active** at that time or not.
 - Server List: state of load balancer, which is either **static** or **dynamic**.

System Architecture

- The **master** would gather all the movie requests and decide which server to download the requested video.
- **Replication** of videos would be made to handle high demand of some popular request.



Testing & Evaluation Plan

