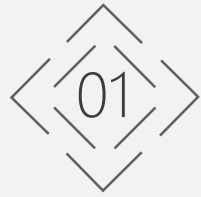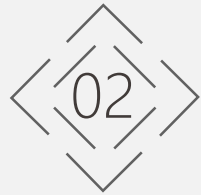# Movie Recommendation System

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Part One

Goal Review and Completion Report
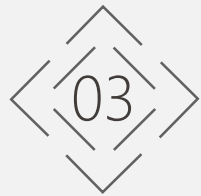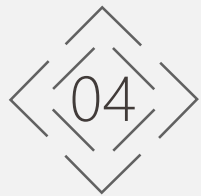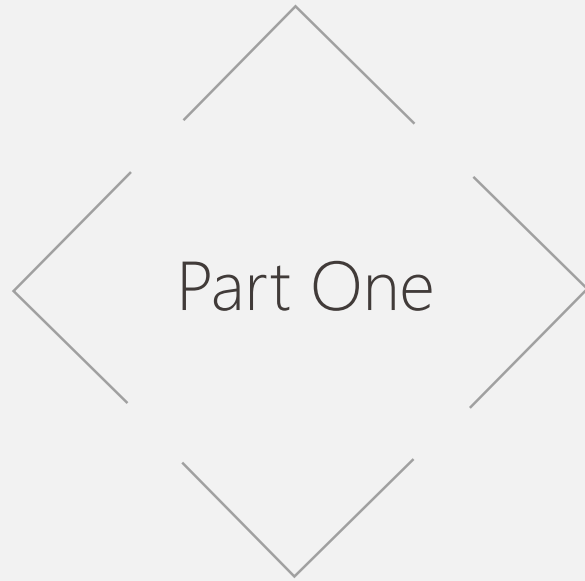
Goal

Build a scalable movie recommendation System to answer the question "What movie should I watch tonight?". It will return some related movies based on the given movie.

The system should return answer in 3 seconds and can handle maximum 10 requests per second.

The system should contain three separated parts: Controller, Model and Datacenter.

Controller: The frontend which contains webserver, user interface, session management, authentication.

Model: The model which contains main logic about how to generate response and how to manipulate data.

Datacenter: The data manager which contains all calculations and low-level data management.

Completion

Controller: Implemented as a stateless server based on Scala Play framework. As it is stateless, it is safe to deploy multiple servers and users can access each of them.
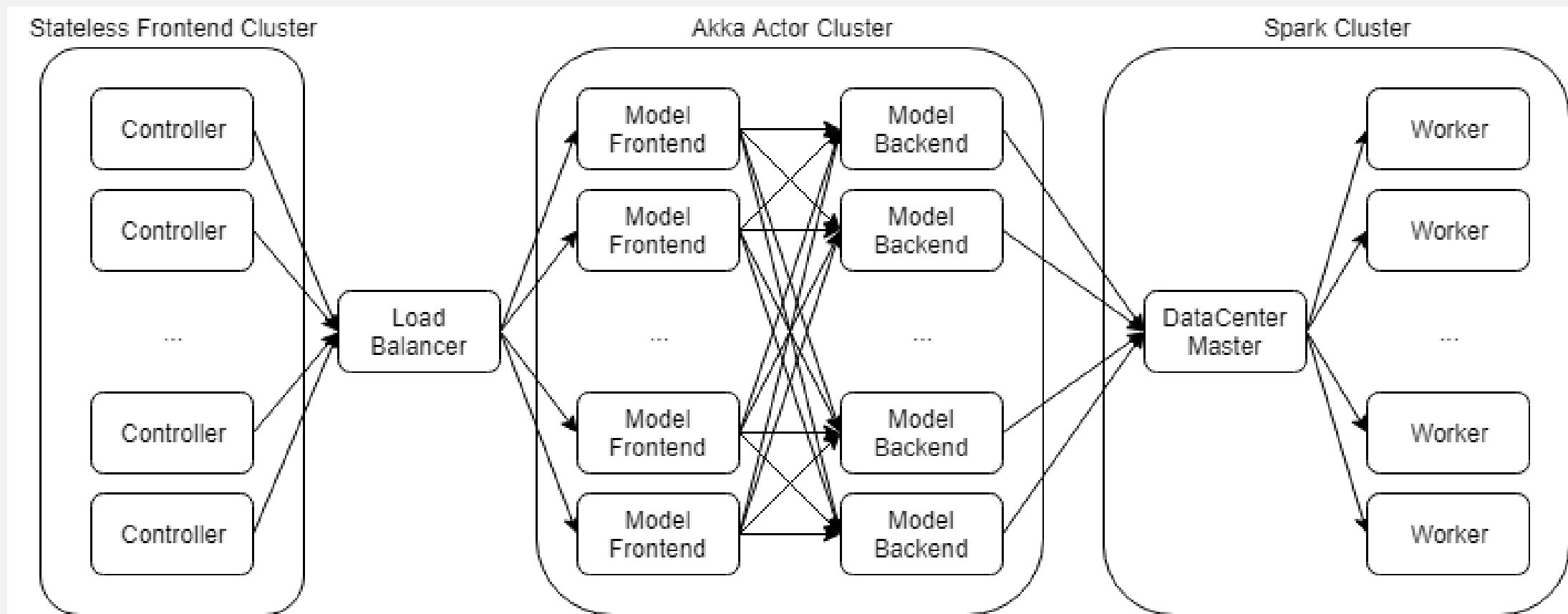
Model: Implemented as a frontend/backend cluster based on Akka Actor Cluster. The frontend is used to handle requests and forward to backend. The backend is used to do real works.
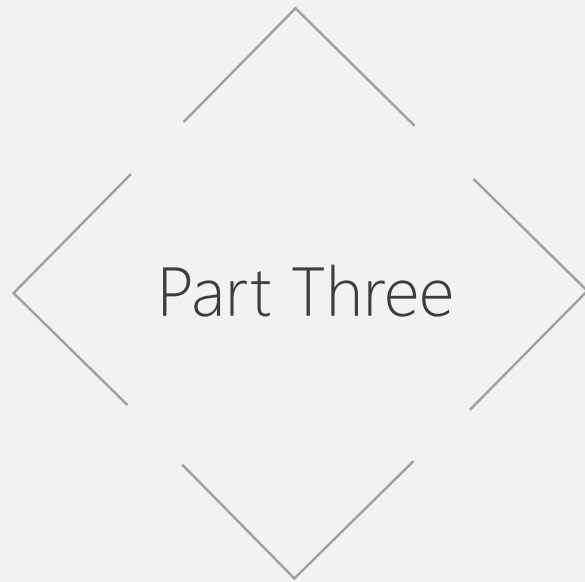
Datacenter: Implemented as a Spark Cluster. Which manages over 1M movies.

Part Two
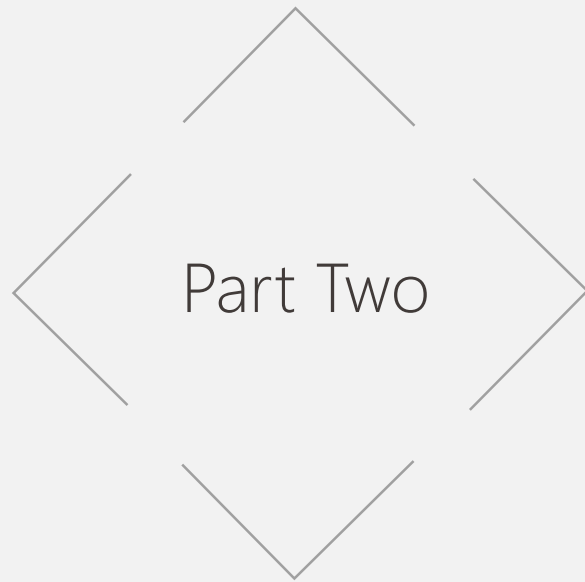
System
Structure

System Structure

Part Three

Demo Presentation and Test Result

Test Result

Part Four

Implementa
tion Detail

Thanks !