

Awesome Modeling

A. Basaglia¹ M. Popović¹ A. Stocco¹

¹University of Padua

AY 2023/2024

Table of Contents

- 1 Introduction
- 2 Architecture
- 3 Sequence Diagram
- 4 The Queue as Load Balancer
- 5 Design choices
- 6 Conclusions

The project's objective is to build a platform for obtaining articles from online newspapers, storing them, making them searchable, and extracting representations of themes discussed in a set of articles returned as results for a given query.

Architecture

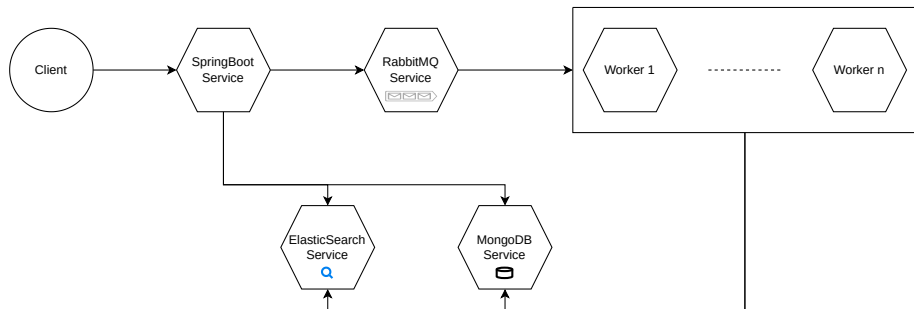


Figure: Microservices

Sequence Diagram

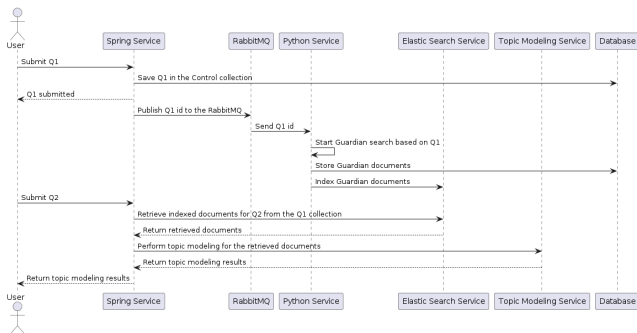


Figure: Sequence diagram

The Queue as Load Balancer

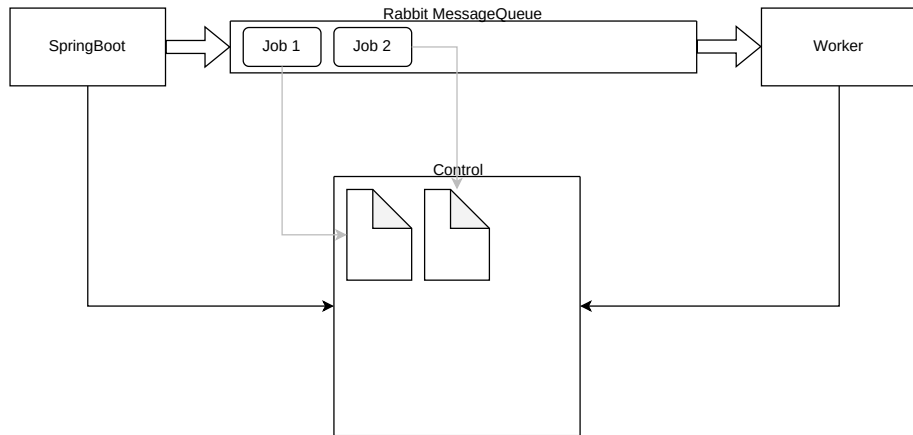


Figure: Queue

- Downloading and indexing are **Asynchronous**
 - **Scalability** improved
- *Separation of Concerns* principle used to divide the Spring Service in units having *Low Coupling* and *High Cohesion*
- Worker Service developed in Python

Let's see a demo!