In the name of God

دانشگاه تربیت مدرّس

Distributed systems

2025

Dr. Lotfi

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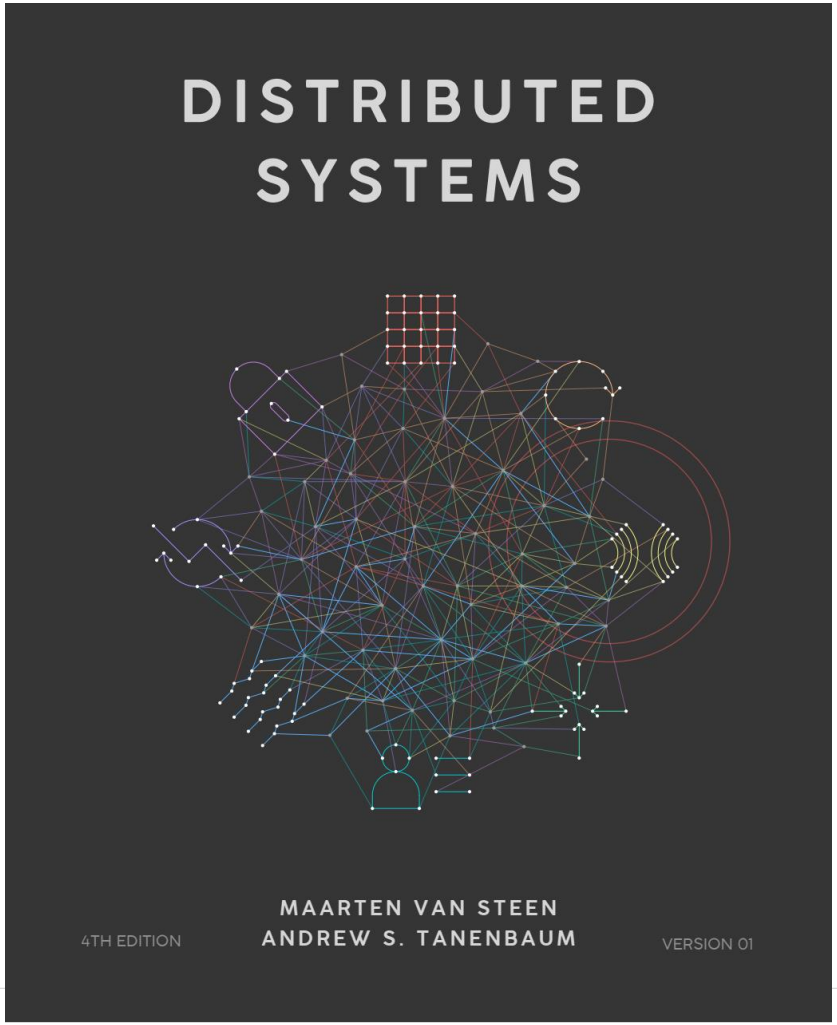
Main reference

DISTRIBUTED SYSTEMS

Maarten van Steen and Andrew S. Tanenbaum

Fourth edition

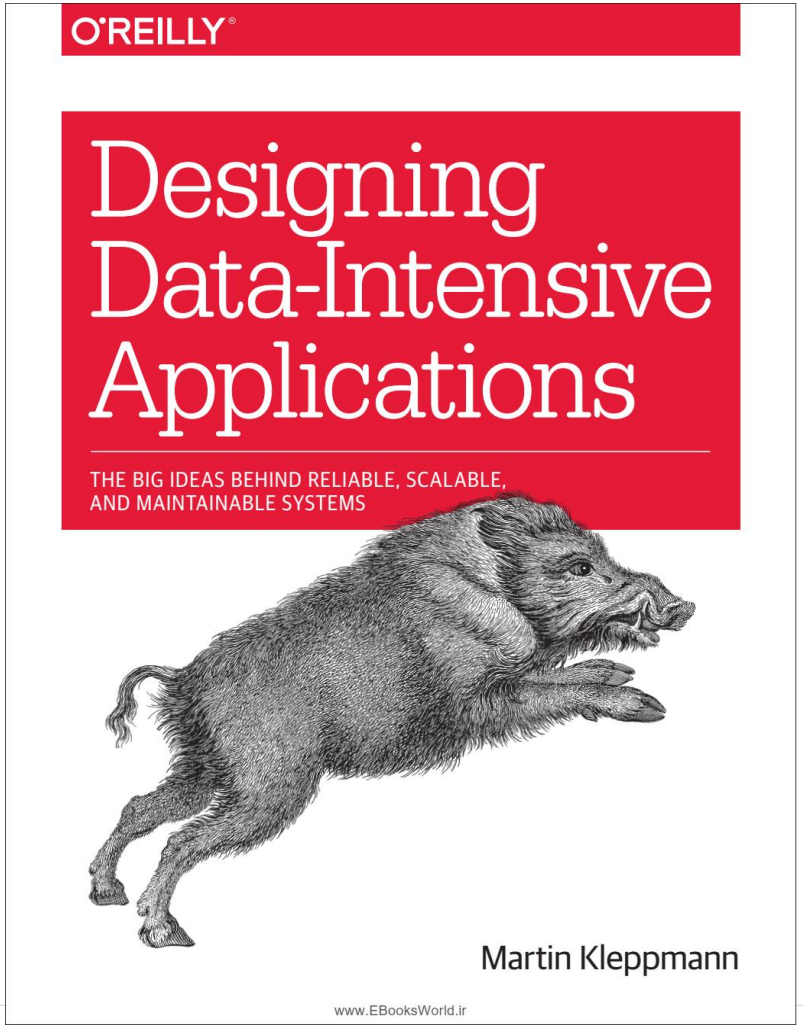
January 2023



References

Auxiliary reference1

Designing Data-Intensive Applications
Martin Kleppmann
First Edition
March 2017



References

Auxiliary reference2

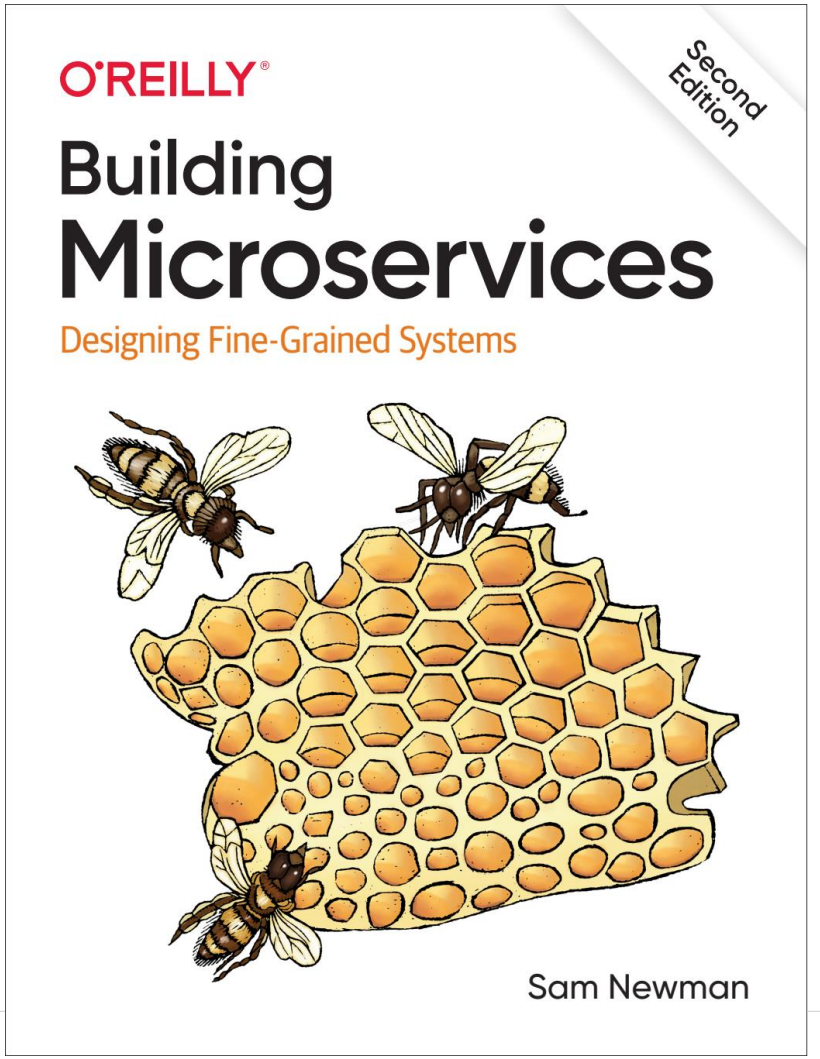
Building Microservices

Designing Fine-Grained Systems

Sam Newman

Second edition

August 2021



References

Assessment

50% Assessed coursework and project

Home works, Research, …

50% Examination

20% Midterm
30% Final

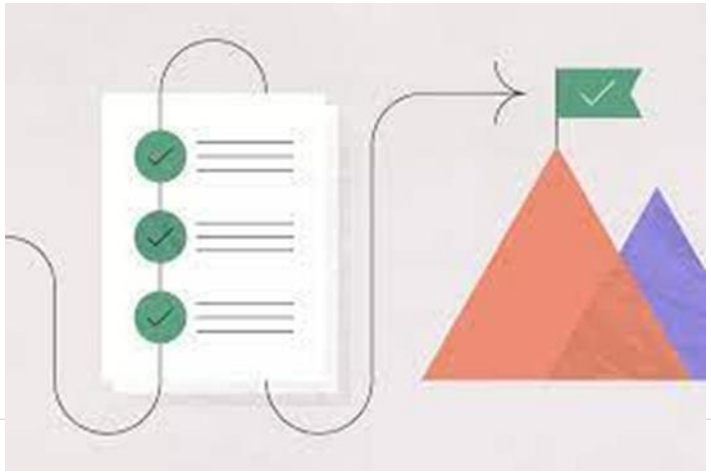
Assessment

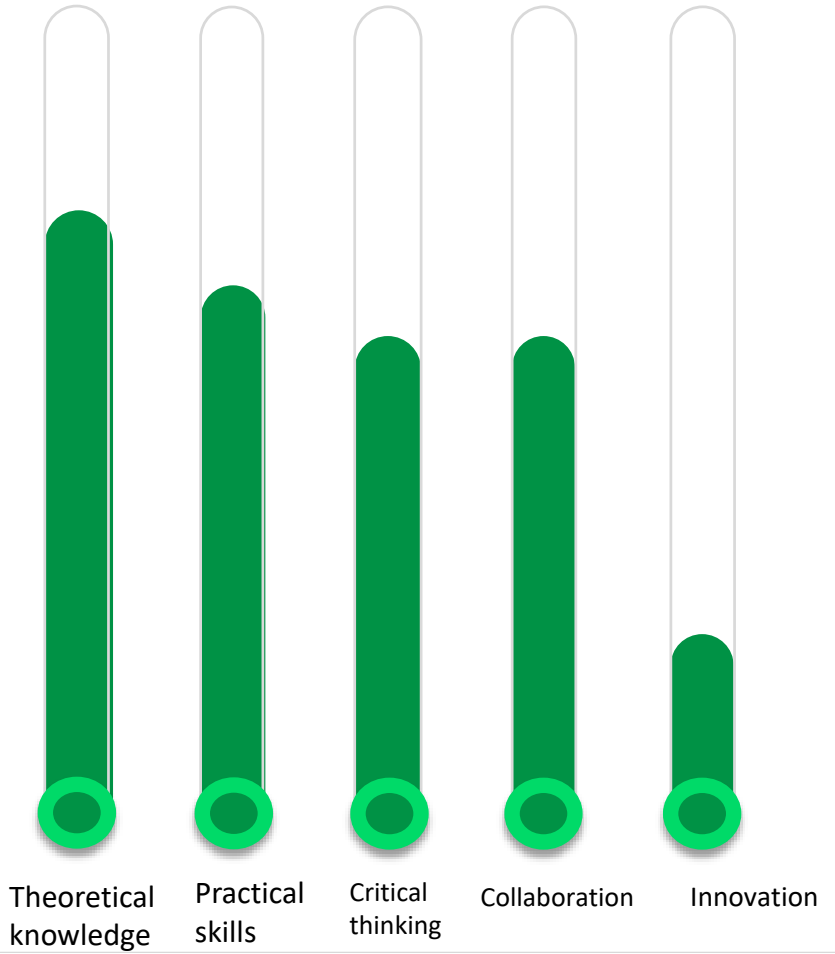
The Vision

The goal of this course is to:

- ✓ Equip students with both theoretical knowledge and practical skills to design and implement robust, efficient, and secure distributed software solutions.

- ✓ Preparing for advanced roles in software engineering and related fields.





The Vision

Outlines

Week 1 — Chapter 1
Introduction

Weeks 2, 3 — Chapter 2
Architectures

Weeks 4, 5 ,6 — Chapter 3
Processes

Weeks 7, 8 — Chapter 4
Communication

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Weeks 9, 10, 11 — Chapter 5
Coordination

Weeks 12, 13
Review of several top world papers

Weeks 14, 15
Review of several top world papers

Outlines

THANKS