


(Big) Data Engineering In Depth

From Beginner to Professional

Mostafa Alaa Mohamed

Senior Big Data Engineer

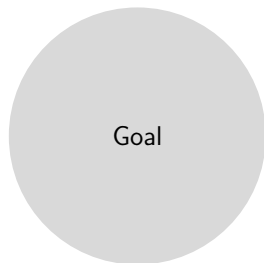
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 mustafa.alaa.mohamed@gmail.com

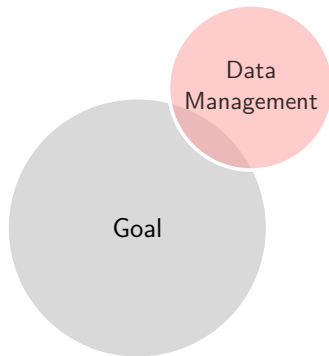
¹Big Data & Analytics Department, Epam Systems

The Definitive Guide to Big Data Engineering Tasks

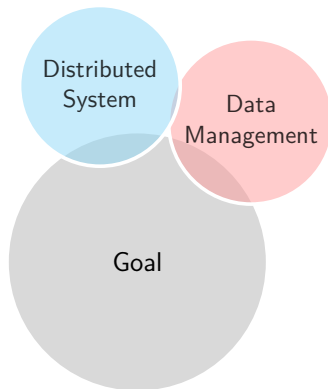
Course Introduction



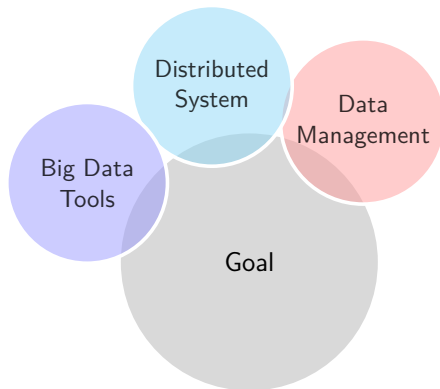
Course Target



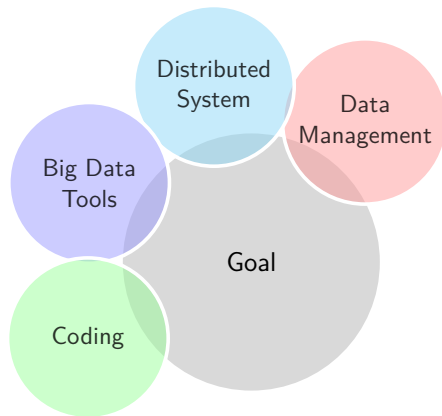
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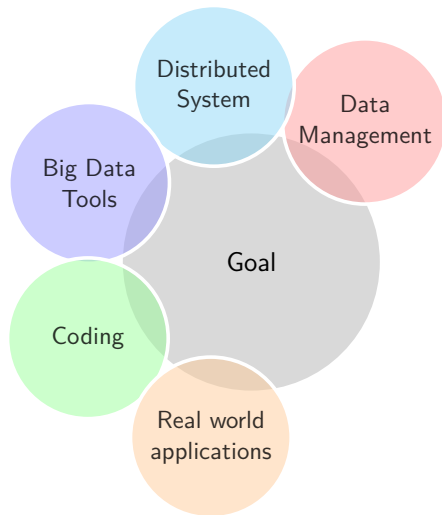
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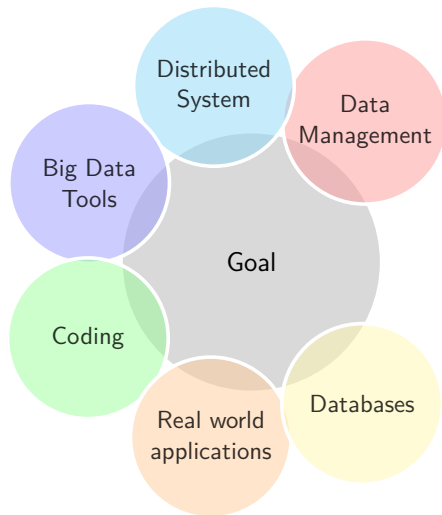
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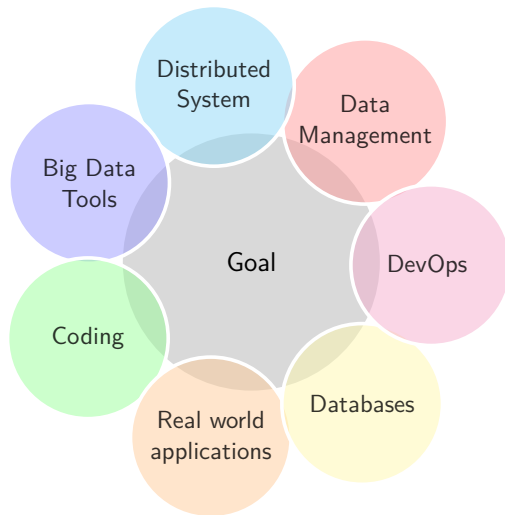
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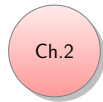


Course Target



Learning Objectives and Audience

Learning Objectives



Learning Objectives

Ch.2

Simplify the concepts in data management.
Understand the data management life-cycle

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Ch.3

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Be familiar with ETL for (batch/streaming) data
over distributed systems ex: Hadoop & Spark.

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Learning Objectives

Ch.6/7

Applying machine learning over big data.

Learning Objectives

Ch.6/7

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Ch.9/12

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Appx. H

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Videos classification

Watching Method / Audience	Computer	Mobile/Tablet	Just listening
Developer	●		
DevOps		●	
Business			●

Table: Video classification

The green circle ● means short video.

The blue circle ● means medium video.

The red circle ● means long video

Videos classification Example

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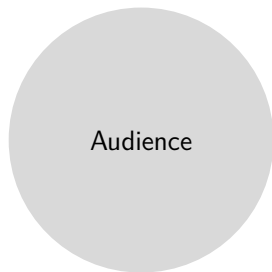
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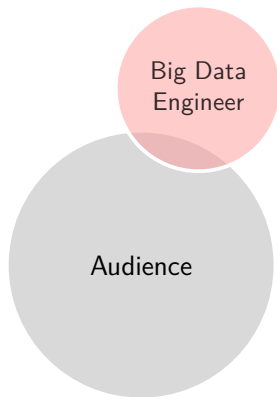
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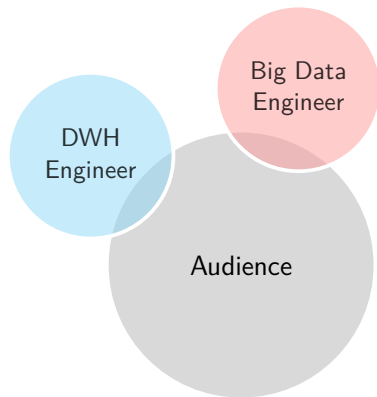
Who Should Take This Course?



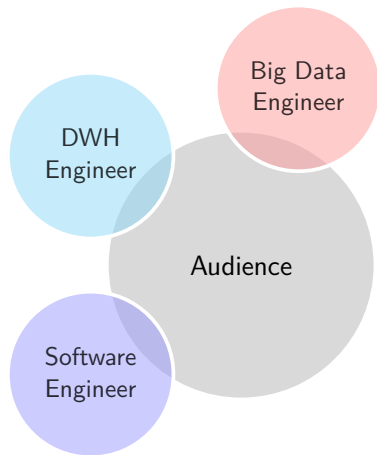
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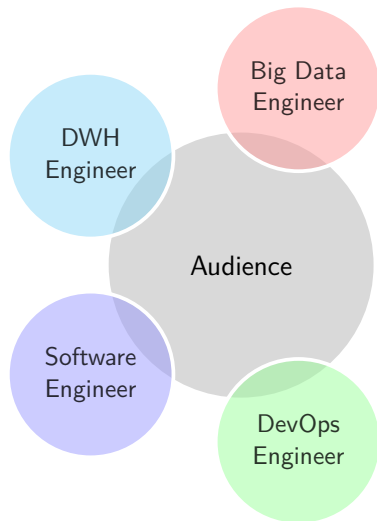
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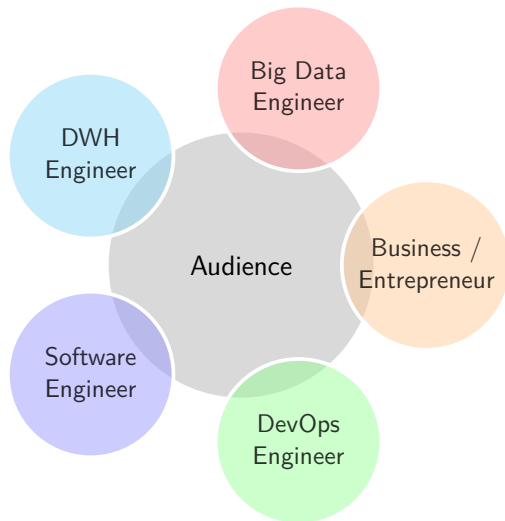
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Getting max benefit from this course

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Take the course advantage

- Follow the order of the videos as described.

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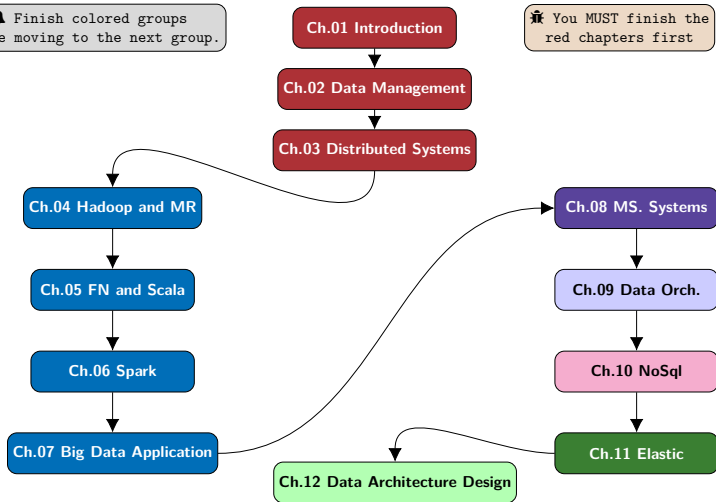
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- Do the assignments.
- Ask your questions.
- Join online meetings or discussions.

Chapter Dependencies

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🔔 Finish colored groups before moving to the next group.

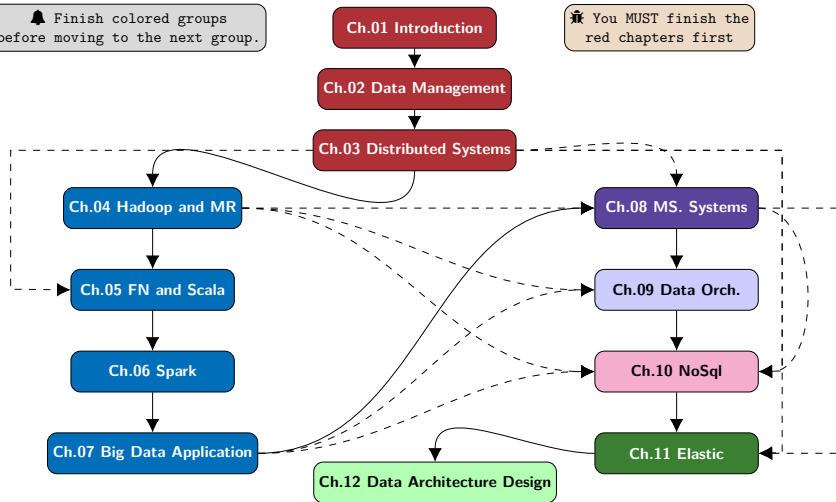
🔔 You MUST finish the red chapters first



Chapter Dependencies (Jump Out Path)

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Assignments, Labs, and Text Books

Assignments and Labs

Remark

- Full project code.

Assignments and Labs

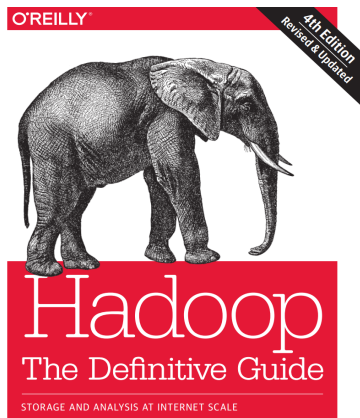
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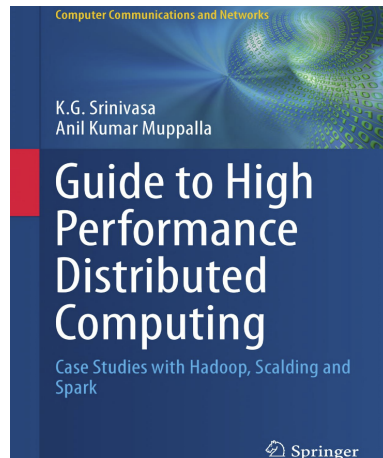
Assignments and Labs

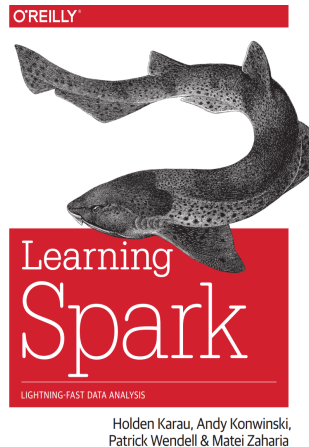
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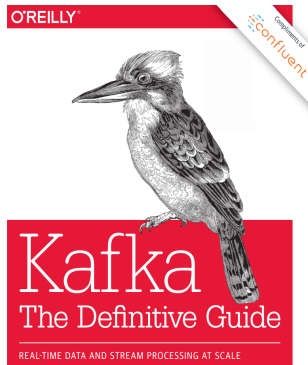
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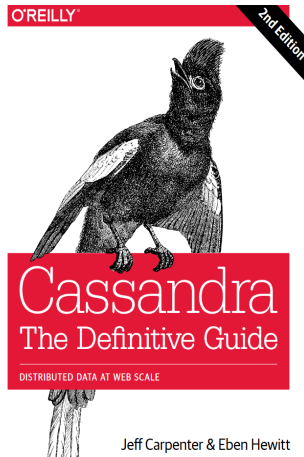
Tom White



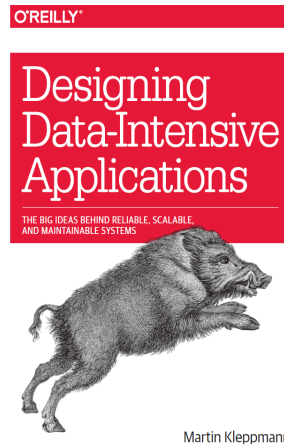




Neha Narkhede,
Gwen Shapira & Todd Palino



Jeff Carpenter & Eben Hewitt



Martin Kleppmann

Ugly but important

- User stories or technical discussions are not related to any of my current work or my previous companies.

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- User stories or technical discussions are not related to any of my current work or my previous companies.
- I am working at EPAM Systems. My company approved me for doing this online course public but the materials are not reviewed or assessed by my company. It is on my responsibilities.

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1 Course Introduction

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- Appendix G- Machine Learning Concepts Data Engineers
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