

Getting Started with Spring Batch

INTRODUCING SPRING BATCH



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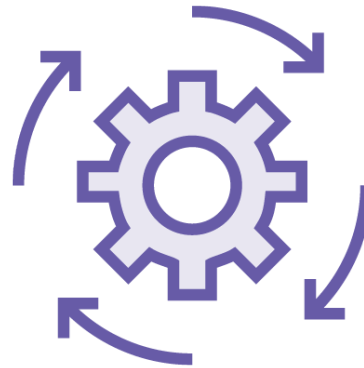


What Is Batch Processing?



Input Data

Large amount of
structured data
Commonly file-based



Job

Runs periodically to
process input data
efficiently



Output

Processed data is
written, often to a
database or other job



What Are the Scenarios for Batch Processing?

Data Transformation

End of the month accounting
process

Daily retail order process

Hourly log of transactions

System Integration

Bulk import of external data

Bulk import of data between
internal systems

Bulk export of data

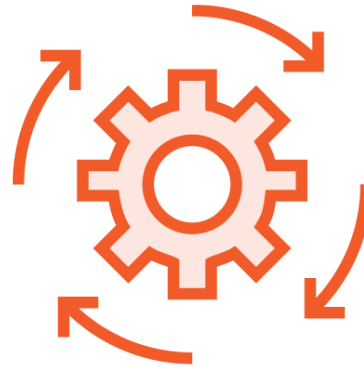


What Is Stream Processing?



Input Data

Individual data change events



Job

Runs near-real-time to process incoming messages



Output

Processed data is written, often to a database or queue



Batch Data Processing

Benefits

Successfully handle high volumes of data

Can stop and re-start job at any time

Mature approach

Challenges

Finite input data set

Can impact real-time processing

Overkill for simpler computations

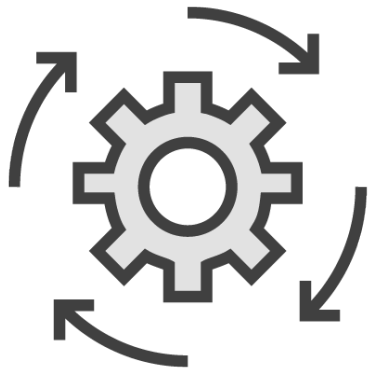


Other Reference

Martin Kleppmann: *Designing Data-Intensive Applications: The Big Ideas Behind Reliable, Scalable and Maintainable Systems*. O'Reilly, 2017. ISBN-13: 978-1449373320.



Spring Batch Vitals



Released in 2008

Takes advantage of the Spring Framework

Currently version is 4.0

Spring Batch Benefits

Spring-based

Java-based

Open source

Support for batch features



Job



Step



Reader



Processor



Writer



What Will You Learn from This Course?



Configure a Spring Batch job

Implement a Spring Batch job

Implement reading, processing, and writing data for a Spring Batch job

Implement unit tests for a Spring Batch job



Outside of the Course Scope



Spring and Java

Advanced batch concepts



Who Is This Course For?



Developers



Architects

Summary



History of batch processing

Basic definition of batch processing

Batch usage scenarios

Basic definition of stream processing

Benefits and challenges of batch processing

Spring Batch

