

Spring Cloud Data Flow

Spring Cloud Data Flow is a cloud native programming and operating model for creating, orchestrating and deploying composable data microservices on modern runtimes. It is an updated successor to our Spring Enterprise course.

This 3-day course provides participants with the skills needed to leverage Spring Cloud Data Flow for real-time and batch data extraction, processing, and ingestion.

The course offers hands-on experience with installation and administration of Spring Cloud Data Flow; usage of the Spring Cloud Data Flow shell; creating, configuring, deploying, and scaling streams and tasks; as well as the development of custom modules including sink, processor, and source stream applications by using Spring Boot and Spring Cloud Stream.

PIVOTAL TRAINING APPROACH

Upon completion of this course, participants will understand the following:

- Spring Cloud Data Flow and the associated technologies used for processing data streams and batches
- How to install Spring Cloud Data Flow
- Spring Cloud Data Flow architecture
- How to create and leverage Spring Cloud Data Flow Streams
- How to create custom Spring Cloud Data Flow Stream applications by using Spring Boot, Spring Integration and Spring Cloud Stream

Advanced Options

- How to create and leverage Spring Cloud Data Flow Tasks by using Spring Cloud Task and Spring Batch
- Spring Cloud Data Flow analytics using counters and gauges
- Docker and Spring Cloud Skipper

SKU

EDU-1122

DELIVERY METHODS

Private, Onsite

DURATION

Three days, instructor-led training

TARGET AUDIENCE

Developers and architects interested in using Spring Cloud Data Flow for handling their data processing use-cases.

Teams who want to migrate existing Spring Integration or Spring Batch projects to Spring Cloud Data Flow.

MORE INFORMATION

On-site training is also available for customers who prefer to bring a Pivotal Certified Instructor to their own facilities. For more information about on-site classes, contact us at pivotal.io/training/contact.

COURSE MODULES

SPRING CLOUD DATA FLOW INTRODUCTION

- What is Data Ingestion?
- What is Spring Cloud Data Flow?
- When to use Spring Cloud Data Flow

ARCHITECTURE

- Spring Boot and Data Microservices
- Spring Cloud Data Flow Components
- Installation using RabbitMQ - either locally or (optionally) using Docker

SPRING AND SPRING BOOT PRIMER

- What is Spring Boot?
- Dependency Management
- Auto Configuration
- Containerless Applications (JAR vs WAR)
- Ease of Use Features

SPRING INTEGRATION

- Overview
- Adapters, Endpoints, Channels, Messages
- XML vs Java DSL
- Predefined Endpoints, Pollers, Taps & Logging

INTRODUCTION TO STREAMS

- Overview
- Stream App Starters
- Sources, Sinks, Processors
- Examples
- Taps
- Custom Sources and Sinks

SPRING CLOUD STREAM

- Main Concepts
- Application Model
- Binders, Configuration, Content Type and Transformation
- Defining, Deploying & Managing Streams
- Inter-Application Communication
- Schemas support (A)
- Testing (A)

USING DOCKER (OPTIONAL)

- Running Spring Cloud Data Flow using Docker containers
- Release management - Spring Cloud Skipper (A)

SPRING BATCH (A)

- Main Concepts
- Jobs, Steps and the Job Repository
- Item Readers, Processors and Writers
- Examples

SPRING CLOUD TASK (A)

- Main Concepts
- Creating Tasks
- Managing Tasks
- Triggering Tasks from Streams

ANALYTICS (A)

- Counters
- Discover available metrics via REST

PRODUCTION USING PIVOTAL CLOUD FOUNDRY (A)

- What is Cloud Foundry?
- Pivotal Cloud Foundry Components
- Pivotal Cloud Foundry basic usage

Topics marked (A) are optional advanced topics and may or may not be covered during the course. Instructors will attempt to cover the optional topics of most interest to each group given time constraints.

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BUSINESS HOURS

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