GCPDataIntegrationAndFusion

# Data Integration with Cloud Data Fusion

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GCPDataIntegrationAndFusion - Version: 1

🕐 2 days Course

**Description:**

Identify the need of data integration,
Understand the capabilities Cloud Data Fusion provides as a data
integration platform,
Identify use cases for possible implementation with Cloud
Data Fusion,
List the core components of Cloud Data Fusion,
Design and execute batch and real time data
processing pipelines,
Work with Wrangler to build data transformationsUse connectors to integrate data from
various sources
and formats,
Configure execution environment; Monitor and Troubleshoot
pipeline execution,
Understand the relationship between metadata and data lineage

**Intended audience:**

**Prerequisites:**

**Objectives:**

**Topics:**

º Introduction

## Introduction to data integration and Cloud Data Fusion

- Data integration: what, why, challenges
- Data integration tools used in industry
- User personas
- Introduction to Cloud Data Fusion
- Data integration critical capabilities
- Cloud Data Fusion UI components

## Building pipelines

- Cloud Data Fusion architecture
- Core concepts
- Data pipelines and directed acyclic graphs (DAG)
- Pipeline Lifecycle
- Designing pipelines in Pipeline Studio

## Designing complex pipelines

- Branching, Merging and Joining
- Actions and Notifications
- Error handling and Macros
- Pipeline Configurations, Scheduling, Import and Export

## Pipeline execution environment

- Schedules and triggers
- Execution environment: Compute profile and provisioners
- Monitoring pipelines

## Building Transformations and Preparing Data with Wrangler

- Wrangler
- Directives
- User-defined directives

## Connectors and streaming pipelines

- Understand the data integration architecture.
- List various connectors.
- Use the Cloud Data Loss Prevention (DLP) API.
- Understand the reference architecture of streaming pipelines.
- Build and execute a streaming pipeline

## Metadata and data lineage

- Metadata
- Data lineage

º Summary