Data Integration with Cloud Data Fusion

Category: AI, Data & Analytics | **Vendor:** Google Cloud

Duration: 16.00 hours (2 days) **13.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This 2-day course introduces learners to the data integration capability of Google Cloud using Cloud Data Fusion. In this course, we discuss the challenges of data integration and the need for a data integration platform (middleware). We then examine how
Cloud Data Fusion can help effectively integrate data from a variety of sources and formats and generate insights. We look at the main components of Cloud Data Fusion and how they work, how to process batch and streaming data in real time with visual pipeline design, rich metadata and data lineage tracking, and how to deploy data pipelines on various runtime engines.

About This Course

This 2-day course introduces learners to the data integration capability of Google Cloud using Cloud Data Fusion. In this course, we discuss the challenges of data integration and the need for a data integration platform (middleware). We then examine how
Cloud Data Fusion can help effectively integrate data from a variety of sources and formats and generate insights. We look at the main components of Cloud Data Fusion and how they work, how to process batch and streaming data in real time with visual pipeline design, rich metadata and data lineage tracking, and how to deploy data pipelines on various runtime engines.

Who Should Attend

- Data Engineer
- Data Analysts

Prerequisites & Entry Requirements

General Prerequisites:

To get the most out of this course, participants are encouraged to have:

Completed (!)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Identify the need for data integration,
- Understand the capabilities of Cloud Data Fusion as a data integration platform,
- Identify use cases for possible implementation with Cloud Data Fusion,
- List the major components of Cloud Data Fusion,
- Design and execute batch and real-time data processing pipelines,
- Work with Wrangler to build data transformations.
- Use connectors to integrate data from different sources and formats,
- Configure the runtime environment; monitor and troubleshoot pipeline execution,
- Understand the relationship between metadata and data lineage

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Detailed Course Outline

Module 00 - Introduction

Module 01 - Introduction to Data Integration and Cloud Data Fusion

- Data integration: what, why, challenges
- Data integration tools used in the industry
- User personas
- Introduction to cloud-based data fusion
- Data Integration Critical Capabilities
- Cloud Data Fusion UI components

Module 02 - Building Pipelines

- Cloud Data Fusion architecture
- Core concepts

- Data pipelines and directed acyclic graphs (DAG)

- Pipeline Lifecycle

- Designing pipelines in Pipeline Studio

Module 03 - Designing Complex Pipelines

- Branches, merging and joining

- Actions and Notifications

- Error handling and macros

- Pipeline configurations, scheduling, import and export

Module 04 - Pipeline Execution Environment

- Scheduling and triggers

- Execution environment: Compute profile and provisioners

- Monitoring pipelines

Module 05 - Building transformations and preparing data with Wrangler

- Wrangler

- Directives

- User-defined directives

Module 06 - 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

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Module 07 - Metadata and Data Lineage

- Metadata

- Data lineage

Module 08 - Summary

- Course summary, Introduction to data integration and Cloud Data Fusion, Building pipelines, Designing complex pipelines, Pipeline execution environment, Building Transformations and Preparing Data with Wrangler, Connectors and streaming pipelines, Metadata and data lineage

Skills You Will Learn:

- Identify the need for data integration,
- Understand the capabilities of Cloud Data Fusion as a data integration platform,
- Identify use cases for possible implementation with Cloud Data Fusion,
- List the major components of Cloud Data Fusion,
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Frequently Asked Questions

Q: What delivery options are available for Data Integration with Cloud Data Fusion?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 2-day Data Integration with Cloud Data Fusion course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Data Integration with Cloud Data Fusion training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Data Integration with Cloud Data Fusion?

Yes, we provide corporate training, dedicated training, and closed classes for Data Integration with Cloud Data Fusion. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Data Integration with Cloud Data Fusion, Data Engineering, DICDF, Google Cloud, vILT

Q: Why choose Nexus Human for Data Integration with Cloud Data Fusion?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Data Integration with Cloud Data Fusion training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

Nexus Human

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