Workflow Orchestration with Cloud Composer

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

Duration: 8.00 hours (1 days) **6.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Cloud Composer is a fully managed workflow orchestration service built on Apache Airflow. Composer enables you to create, schedule, monitor, and manage workflow pipelines that span across clouds and on-premises data centers.

In this course, you will learn about Apache Airflow and its implementation via Cloud Composer. You will learn how to provision Composer instances, create and manage Airflow DAGs on Composer, and perform tasks such as testing, debugging, and monitoring of Airflow DAGs.

About This Course

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Who Should Attend

Data Engineers who wish to learn how to use Apache Airflow and Cloud Composer to orchestrate their data engineering workflows.

Prerequisites & Entry Requirements

General Prerequisites:

Completion of "(!) " or equivalent knowledge of data analytics and engineering on Google Cloud.

Learning Outcomes

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

- Explore Apache Airflow and Cloud Composer as workflow orchestration solutions.
- Create and manage Airflow DAGs following best practices.
- Test and debug Airflow DAGs.
- Monitor and observe Airflow DAGs on Cloud Composer

Detailed Course Outline

Module 1 - Introduction to Cloud Composer

Topics

- Data Engineer's need for Workflow Orchestration
- Introduction to Apache Airflow
- Cloud Composer
- Environment Setup
- Using the Composer and Airflow

Objectives

- Explore Apache Airflow and Cloud Composer.
- Provision Cloud Composer instances.
- Explore the Airflow and Composer UIs.

Activities

- Lab: Provisioning Cloud Composer

Module 2 - Creating and managing DAGs

Topics

- DAG structure and best practices
- Common operators
- Dependencies, trigger rules, and flow control
- Integration of Airflow and Google Cloud Services

Objectives

- Write DAGs.
- Explore common Airflow operators.
- Manage triggers, dependencies, and flow control.
- Integrate Airflow with Google Cloud Services.

Activities

- Lab: Assembling a Data Processing Workflow

Module 3 - Advanced Airflow techniques and best practices

Topics

- Advanced Airflow features
- Debugging DAGs
- Performance and scalability
- Security and Access Control
- Observability and monitoring

Objectives

- Leverage advanced Airflow features.
- Debug DAGs.
- Observe and monitor your running DAGs

Activities

- Lab: Extending and Monitoring DAGs, Introduction to Cloud Composer, Creating and managing DAGs, Advanced Airflow techniques and best practices

Skills You Will Learn:

- Explore Apache Airflow and Cloud Composer as workflow orchestration solutions.
- Create and manage Airflow DAGs following best practices.
- Test and debug Airflow DAGs.
- Monitor and observe Airflow DAGs on Cloud Composer

Frequently Asked Questions

Q: What delivery options are available for Workflow Orchestration with Cloud Composer?

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 1-day Workflow Orchestration with Cloud Composer course provides up to 6.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Workflow Orchestration with Cloud Composer training?

The training takes place over 1 day(s), with each day lasting approximately 8.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Workflow Orchestration with Cloud Composer?

Yes, we provide corporate training, dedicated training, and closed classes for Workflow Orchestration with Cloud Composer. 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: Workflow Orchestration with Cloud Composer, Data Engineering, WOCC, Google Cloud, vILT

Q: Why choose Nexus Human for Workflow Orchestration with Cloud Composer?

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 Workflow Orchestration with Cloud Composer training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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