GOOGLE CLOUD FUNDAMENTALS: BIG DATA AND MACHINE LEARNING

Course Code: 8325

Learn about the Google Cloud big data capabilities.

This one-day instructor-led course introduces participants to the big data capabilities of Google Cloud Platform. Through a combination of presentations, demos, and hands-on labs, you will get an overview of the Google Cloud platform and a detailed view of the data processing and machine learning capabilities. This course showcases the ease, flexibility, and power of big data solutions on Google Cloud Platform.

What You’ll Learn

• Purpose and value of the key Big Data and Machine Learning products in the Google Cloud Platform
• Use Cloud SQL and Cloud Dataproc to migrate existing MySQL and Hadoop/Pig/Spark/Hive workloads to Google Cloud Platform
• Employ BigQuery and Cloud Datalab to carry out interactive data analysis
• Train and use a neural network using TensorFlow
• Employ ML APIs
• Choose between different data processing products on the Google Cloud Platform

Who Needs to Attend

• Data analysts getting started with Google Cloud Platform
• Data scientists getting started with Google Cloud Platform
• Business analysts getting started with Google Cloud Platform
• Individuals responsible for designing pipelines and architectures for data processing, creating and maintaining machine learning and statistical models, querying datasets, visualizing query results and creating reports
• Executives and IT decision makers evaluating Google Cloud Platform for use by data scientists

Prerequisites

• Basic proficiency with common query language such as SQL
• Experience with data modeling, extract, transform, load activities
• Developing applications using a common programming language such Python
• Familiarity with Machine Learning and/or statistics
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CLASSROOM LIVE $995 USD 1 day

Classroom Live Outline

1. Introducing Google Cloud Platform
   - Google Platform Fundamentals Overview
   - Google Cloud Platform Data Products and Technology
   - Usage scenarios

2. Compute and Storage Fundamentals
   - CPUs on demand (Compute Engine)
   - A global filesystem (Cloud Storage)
   - CloudShell

3. Data Analytics on the Cloud
   - Stepping-stones to the cloud
   - CloudSQL: your SQL database on the cloud
   - Lab: Importing data into CloudSQL and running queries
   - Spark on Dataproc

4. Scaling Data Analysis
   - Fast random access
   - Datalab
   - BigQuery
   - Machine Learning with TensorFlow
   - Fully built models for common needs

5. Data Processing Architectures
   - Message-oriented architectures with Pub/Sub
   - Creating pipelines with Dataflow
   - Reference architecture for real-time and batch data processing

6. Summary
   - Why GCP?
• Where to go from here
• Additional Resources

Classroom Live Labs

Lab 1: Sign up for Google Cloud Platform
Lab 2: Set up a Ingest-Transform-Publish data processing pipeline
Lab 3: Machine Learning Recommendations with SparkML
Lab 4: Build machine learning dataset
Lab 5: Train and use neural network
Lab 6: Employ ML APIs
Virtual Classroom Live Outline

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PRIVATE GROUP TRAINING 1 day

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Date created: 12/10/2019 9:51:11 AM
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