



Google Cloud Platform Big Data And Machine Learning Fundamentals (CPB100)

Duration: 1 Days **Course Code: GO8325** **Delivery Method: Virtual Learning**

Overview:

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.

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

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

Objectives:

- In this course you will learn:
 - Purpose and value of the key Big Data and Machine Learning products in the GoogleCloud Platform
 - Use Cloud SQL and Cloud Dataproc to migrate existing MySQL andHadoop/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
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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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Content:

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

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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