# Technical Foundations of FinOps on Google Cloud

## Duration: 2 Days  Course Code: GO9092  Delivery Method: Company Event

### Overview:

**Learn how to manage, govern, and maximize the business value of Google Cloud**

Dive deep into the technical underpinnings of FinOps and gain the expertise to optimize your cloud spending and drive business value.

*Updated July 2026*

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

### Target Audience:

- Customers

### Objectives:

- **After this course participants should be able to:**
- Understand the core principles of FinOps and how it bridges the gap between technology and finance in the cloud.
- Explore proven techniques to identify cost inefficiencies, optimize resource utilization, and achieve significant savings.
- Utilize advanced monitoring tools and data-driven insights to track spending patterns, forecast costs, and make informed decisions.
- Implement effective cost allocation models to accurately attribute cloud expenses to specific teams or projects.
- Leverage IaC to automate cost management processes, enforce spending policies, and ensure consistent financial governance.
- Use industry-leading FinOps platforms and tools to gain comprehensive visibility into your cloud spending and optimize resource usage.
- Apply your knowledge to real-world scenarios through hands-on exercises and case studies.
- Foster a culture of cost awareness and accountability within your organization

### Prerequisites:

- Knowledge of Google Cloud infrastructure as discussed in Google Cloud Fundamentals: Core Infrastructure.

### Testing and Certification

None

### Follow-on-Courses:

None

## Content:

Module 01 Foundations of FinOps on Google Cloud

- Recognize financial governance challenges facing organizations today.
- Understand the purpose of Google Cloud FinOps framework.
- Implement the Google Cloud FinOps operating model.
- Discern the three phases and five pillars of the Google FinOps journey.

Module 02 Exploring and Understanding Billing Data

- Understand Google Cloud Billing account management.
- Navigate the Cloud Billing dashboard.
- Control access to billing accounts with IAM and permissions.
- Configure and use BigQuery billing to export data.
- Visualize your costs with Looker Studio.
- Lab: Exploring the Billing Dashboard
- Lab: Visualizing your Costs with Looker Studio

Module 03 Resource Labeling and Tagging

- Utilize labels on resources.
- Define and bind tags to projects and resources.
- Access label and tag information in billing data.
- Lab: Tagging Resources
- Lab: Examining Labels and Tags in BigQuery Billing Data

Module 04 Budgets and Alerting

- Understand the benefits of budgets and alerts.
- Create a budget.
- Create budgets with gcloud, Python, and Terraform.
- Demo: Using gcloud and Terraform to create budgets and alerts

Module 05 BigQuery Cost Management and Optimization

- Understand BigQuery compute and storage costs.
- Use queries and tools to help understand and manage BigQuery costs.
- Recognize best practices for BigQuery cost management.
- Lab: Examining BigQuery Costs Across the Project, Folder, and Organization

Module 06 Compute and GKE Cost Management and Optimization

- Use cloud resources efficiently and avoid waste.
- Understand computing and network charges incurred in Google Cloud.
- Understand additional Google Kubernetes Engine costs beyond computing and networking.
- Lab: Reviewing and Understanding Compute Billing
- Lab: Reviewing and Understanding Kubernetes Costs

Module 07 Cloud Storage and Database Costs

- Optimize Cloud Storage costs based on location, access patterns, and lifecycle.
- Understand SQL database costs, including Cloud SQL, AlloyDB, and Spanner.
- Utilize Database Committed Use Discounts (CUD).
- Understand NoSQL database costs, including Memorystore, Firestore, and Bigtable.
- Lab: Working with Cloud Storage Cost Management
- Lab: Reviewing and Understanding Database Billing

Module 08 Machine Learning and Vertex AI Cost Management

- Decipher charges associated with machine learning model preparation, training, and hosting.
- Understand costs associated with generative AI usage, including subscriptions and API usage.
- Lab: Reviewing Vertex AI Costs in Billing Data

Module 09 Automating Billing Activities

- Use techniques for automating resource management.
- Respond programmatically to budget alerts Pub/Sub messages.
- Utilize the Cloud Asset Inventory service.
- View recommendations in the Google FinOps Hub.
- Lab: Automate Tagging upon Resource Creation Using Asset API, Pub/Sub and Cloud Run Functions
- Lab: Programming Budget Alert Actions Using Pub/Sub and Cloud Run Functions

Module 10 Building a FinOps Practice

- Establish a FinOps team and a roadmap.
- Implement processes and workflows for FinOps.
- Define success for a FinOps strategy.
- Recognize the need for continuous improvement and evolution of FinOps.
- Lab: FinOps Challenge Lab

## Additional Information:

Official course book provided to participants

## 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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