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| Nota di contenuto       | Contents at a Glance; Introduction; Part I: Introducing Cloud Computing and Google Cloud Platform ; Chapter 1: The Google Cloud Platform Difference; What Is Cloud Computing?; Technical Benefits of Using a Public Cloud; Uptime; Resource Utilization; Expertise; Economic Benefits of Using a Public Cloud; TCO; Economies of Scale; CapEx and OpEx; ROI and Profit Margins; Business Benefits of Using a Public Cloud; Time to Market ; Self-Service ; Pay per Use; Uncertain Growth Patterns ; Why Google Cloud Platform?; Hardware Innovations; Software Innovations; Economic Innovations<br>A Quick Comparison to AWS Summary; Chapter 2: Getting Started with Google Cloud Platform; Cloud Platform Building Blocks ; Projects; Regions, Zones, Resources, and Quotas ; The Developers Console; Permissions and Auth ; The Cloud SDK and the gcloud Tool ; APIs and Cloud Client Libraries ; Cloud Platform Products; Summary; Chapter 3: Using Google APIs; Auth Essentials; API Keys ; OAuth 2.0 ; OAuth 2.0 |

Application Authentication ; OAuth 2.0 User Authentication; 2-Legged OAuth 2.0 User Authentication ; Translate API ; Accessing Translate REST API

Discovering Languages Supported by Translate API Accessing Translate API using Client Programs ; Summary; Part II: Google Cloud Platform - Compute Products ; Chapter 4: Google Compute Engine; Virtual Machines ; Persistent Disks ; Networks and Firewalls ; Deploying High-Performance Virtual Machines Using Compute Engine;

Associating the gcloud Command-Line Tool with a Google Account; Selecting a Google Cloud Platform Project ; Creating and Starting an Instance ; Allowing Ingress Network Access ; Creating a Web Presence with Compute Engine in 8 Minutes Flat

Handling Unpredictable Traffic with the Compute Engine Load Balancer Forwarding Rules ; Target Pool ; Load-Distribution Algorithm ; Health Checks ; Going Live; Building a Global Multi-Datacenter Web Tier in an Hour; Global Forwarding Rules ; Target HTTP Proxy ; URL Maps ; Backend Services ; Instance Groups ; Load-Distribution Algorithm ; Going Live; Automatically Resizing a Web Tier with the Compute Engine Autoscaler; Managed Instance Group ; Utilization Metric ; Target Utilization Level ; Autoscaling Integrations ; Going Live; Step 1: Create an Instance Template

Step 2: Create a Managed Instance Group Step 3: Create an Autoscaler;

Step 4: Add Autoscaled Managed Instance Groups as Endpoints;

Summary; Chapter 5: Google App Engine; The SDK ; About Web Applications ; Time for the Much-Beloved "Hello World"; Pretty "Hello World"; Storing Information; Key Properties and Ancestor Paths; Batching and Asynchronous Operations ; Request Routing ; Queries ; Transactions ; User Management ; Memcache ; E-mail ; Task Queues; Push Queues ; Pull Queues ; Handling Tasks ; Task Queues in the Administration Console ; Deleting Tasks

Deferred Tasks

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## Sommario/riassunto

Building Your Next Big Thing with Google Cloud Platform shows you how to take advantage of the Google Cloud Platform technologies to build all kinds of cloud-hosted software and services for both public and private consumption. Whether you need a simple virtual server to run your legacy application or you need to architect a sophisticated high-traffic web application, Cloud Platform provides all the tools and products required to create innovative applications and a robust infrastructure to manage them. Google is known for the scalability, reliability, and efficiency of its various online products, from Google Search to Gmail. And, the results are impressive. Google Search, for example, returns results literally within fractions of second. How is this possible? Google custom-builds both hardware and software, including servers, switches, networks, data centers, the operating system's stack, application frameworks, applications, and APIs. Have you ever imagined what you could build if you were able to tap the same infrastructure that Google uses to create and manage its products? Now you can! Building Your Next Big Thing with Google Cloud Platform shows you how to take advantage of the Google Cloud Platform technologies to build all kinds of cloud-hosted software and services for both public and private consumption. Whether you need a simple virtual server to run your legacy application or you need to architect a sophisticated high-traffic web application, Cloud Platform provides all the tools and products required to create innovative applications and a robust infrastructure to manage them. Using this book as your compass, you can navigate your way through the Google Cloud Platform and turn your ideas into reality. The authors, both Google Developer Experts in Google Cloud Platform, systematically introduce various Cloud Platform

products one at a time and discuss their strengths and scenarios where they are a suitable fit. But rather than a manual-like "tell all" approach, the emphasis is on how to Get Things Done so that you get up to speed with Google Cloud Platform as quickly as possible. You will learn how to use the following technologies, among others: Google Compute Engine Google App Engine Google Container Engine Google App Engine Managed VMs Google Cloud SQL Google Cloud Storage Google Cloud Datastore Google BigQuery Google Cloud Dataflow Google Cloud DNS Google Cloud Pub/Sub Google Cloud Endpoints Google Cloud Deployment Manager Author on Google Cloud Platform Google APIs and Translate API Using real-world examples, the authors first walk you through the basics of cloud computing, cloud terminologies and public cloud services. Then they dive right into Google Cloud Platform and how you can use it to tackle your challenges, build new products, analyze big data, and much more. Whether you're an independent developer, startup, or Fortune 500 company, you have never had easier to access to world-class production, product development, and infrastructure tools. Google Cloud Platform is your ticket to leveraging your skills and knowledge into making reliable, scalable, and efficient products—just like how Google builds its own products.

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