

[Storage Products](https://cloud.google.com/products/storage/) (<https://cloud.google.com/products/storage/>)

[Cloud Storage](https://cloud.google.com/storage/) (<https://cloud.google.com/storage/>)

[Documentation](https://cloud.google.com/storage/docs/) (<https://cloud.google.com/storage/docs/>) [Guides](#)

Google Cloud tutorials using Cloud Storage

This page describes some of the tutorials that utilize multiple Google Cloud products, including Cloud Storage.

Big Data tutorials

Tutorial	Additional Google Cloud Products
Analyzing portfolio risk using HTCondor and Compute Engine (https://cloud.google.com/solutions/analyzing-portfolio-risk-using-htcondor-and-compute-engine)	Compute Engine, Dataflow, BigQuery, Datalab, Pub/Sub
Build a Data Lake on Google Cloud (https://cloud.google.com/solutions/build-a-data-lake-on-gcp)	Cloud Bigtable, BigQuery, Dataflow, Dataproc, Dataprep by Trifacta, Pub/Sub
Build a Marketing Data Warehouse on Google Cloud (https://cloud.google.com/solutions/marketing-data-warehouse-on-gcp)	BigQuery, Resource Manager, AI Platform, Dataprep by Trifacta, TensorFlow, Google Data Studio, Datalab
Build a Mobile Gaming Analytics Platform (https://cloud.google.com/solutions/mobile/mobile-gaming-analysis-telemetry)	Dataflow, Datastore, Pub/Sub, BigQuery, Datalab
Codelab: Looking at campaign finance with BigQuery (https://codelabs.developers.google.com/codelabs/cloud-bq-campaign-finance)	BigQuery
Codelab: Run a Big Data Text Processing Pipeline in Cloud Dataflow (https://codelabs.developers.google.com/codelabs/cloud-dataflow-starter)	Dataflow
Data Lifecycle on Google Cloud (https://cloud.google.com/solutions/data-lifecycle-cloud-platform)	BigQuery, Datastore, Cloud Spanner, Cloud Firestore, Cloud SQL, Dataflow, Dataprep by Trifacta, Cloud Composer, Cloud Translation, Video Intelligence API

How to Do Serverless Pixel Tracking (https://cloud.google.com/solutions/serverless-pixel-tracking-tutorial)	BigQuery
Loading, storing, and archiving time series data on Google Cloud (https://cloud.google.com/solutions/loading-storing-archiving-time-series)	
Migrating and integrating data into BigQuery using Informatica Intelligent Cloud Services (https://cloud.google.com/solutions/partners/migrating-and-integrating-into-bigquery-using-iics)	BigQuery
Migrating HDFS Data from On-Premises to Google Cloud (https://cloud.google.com/solutions/migration/hadoop/hadoop-access-management-gcp-migration-data)	Cloud Interconnect, Cloud Identity and Access Management
Migrating On-Premises Hadoop Infrastructure to Google Cloud (https://cloud.google.com/solutions/migration/hadoop/hadoop-gcp-migration-overview)	Dataproc, Virtual Private Cloud, Cloud VPN
Running RStudio® Server on a Cloud Dataproc Cluster (https://cloud.google.com/solutions/running-rstudio-server-on-a-cloud-dataproc-cluster)	Dataproc
Scenarios for Exporting Stackdriver Logging: Compliance Requirements (https://cloud.google.com/solutions/exporting-stackdriver-logging-for-compliance-requirements)	Cloud Identity and Access Management, Key Management Service, Cloud Audit Logs
Streaming Data from Cloud Storage into BigQuery Using Cloud Functions (https://cloud.google.com/solutions/streaming-data-from-cloud-storage-into-bigquery-using-cloud-functions)	Cloud Functions, BigQuery, Pub/Sub, Cloud Firestore
Transferring Big Data Sets to GCP (https://cloud.google.com/solutions/transferring-big-data-sets-to-gcp)	Storage Transfer Service, Transfer Appliance

Containers tutorials

Tutorial

Additional Google Cloud Products

Best Practices for Operating Containers (https://cloud.google.com/solutions/best-practices-for-operating-containers)	Google Kubernetes Engine, Stackdriver
Deploying .NET Applications on GCP (https://cloud.google.com/solutions/deploy-dotnet-applications)	Compute Engine, Google Kubernetes Engine, App Engine,
Deploying production-ready GitLab on Google Kubernetes Engine (https://cloud.google.com/solutions/deploying-production-ready-gitlab-on-gke)	Compute Engine, Google Kubernetes Engine, Cloud Load Balancing, Cloud SQL, Memorystore, Container Registry, Stackdriver

Infrastructure and architecture tutorials

Tutorial	Additional Google Cloud Products
Architecture: Complex Event Processing (https://cloud.google.com/solutions/architecture/complex-event-processing)	App Engine, Compute Engine, Cloud Bigtable, BigQuery, Dataflow, Pub/Sub, Datalab
Automating Infrastructure with Cloud Composer (https://cloud.google.com/solutions/automating-infrastructure-using-cloud-composer)	Cloud Composer, Google Kubernetes Engine, Compute Engine, Cloud SQL
Choosing the Right Architecture for Global Data Distribution (https://cloud.google.com/solutions/architecture/global-data-distribution)	Firebase, App Engine, Pub/Sub, Virtual Private Cloud, Cloud Load Balancing, Storage Transfer Service
Cloud Functions with Cloud Storage (https://cloud.google.com/functions/docs/tutorials/storage)	Cloud Functions
Content Delivery with Fastly and Cloud Storage (https://cloud.google.com/solutions/cdn-fastly)	
Deploying highly available SAP storage infrastructure with Elastifile (https://cloud.google.com/solutions/partners/deploying-highly-available-sap-storage-infrastructure-with-elastifile)	Compute Engine
Google Cloud for OpenStack Users (https://cloud.google.com/docs/compare/openstack)	Compute Engine, Cloud Load Balancing, Cloud SQL
Sending emails with SendGrid and Cloud Functions	Cloud Functions, Pub/Sub, BigQuery

(<https://cloud.google.com/functions/docs/tutorials/sendgrid>)

[Setting up a CI/CD pipeline for your data-processing workflow](https://cloud.google.com/solutions/cicd-pipeline-for-data-processing)

(<https://cloud.google.com/solutions/cicd-pipeline-for-data-processing>)

Cloud Build, Cloud Source Repositories, Cloud Composer, Dataflow

[Setting up a HIPAA-aligned project](https://cloud.google.com/solutions/setting-up-a-hipaa-aligned-project)

(<https://cloud.google.com/solutions/setting-up-a-hipaa-aligned-project>)

Cloud Identity and Access Management, Stackdriver, Cloud Audit Logs, BigQuery, Pub/Sub

[Using Jenkins for Distributed Builds on Compute Engine](https://cloud.google.com/solutions/using-jenkins-for-distributed-builds-on-compute-engine)

(<https://cloud.google.com/solutions/using-jenkins-for-distributed-builds-on-compute-engine>)

Compute Engine, Cloud Identity and Access Management

[Using Microsoft SQL Server backups for point-in-time recovery on Compute Engine](https://cloud.google.com/solutions/backup-and-archival-of-sql-with-point-in-time-recovery)

(<https://cloud.google.com/solutions/backup-and-archival-of-sql-with-point-in-time-recovery>)

Compute Engine

Machine learning tutorials

Tutorial	Additional Google Cloud Products
<p><u>An Image Search Application that Uses the Cloud Vision API</u> (https://cloud.google.com/solutions/image-search-app-with-cloud-vision)</p>	<p>App Engine, Pub/Sub, AutoML Vision, Cloud Vision</p>
<p><u>Building an Image Search Application Using the Cloud Vision API (Tutorial)</u> (https://cloud.google.com/solutions/building-an-image-search-app-with-cloud-vision-tutorial)</p>	<p>App Engine, Pub/Sub, AutoML Vision, Cloud Vision</p>
<p><u>Codelab: Using Cloud Vision with Node.js</u> (https://codelabs.developers.google.com/codelabs/cloud-vision-nodejs)</p>	<p>Cloud Vision</p>
<p><u>Processing User-Generated Content Using the Video Intelligence and Cloud Vision APIs (tutorial)</u> (https://cloud.google.com/solutions/processing-user-generated-content-using-video-intelligence)</p>	<p>Cloud Functions, BigQuery, Pub/Sub</p>
<p><u>Serving Websites</u> (https://cloud.google.com/solutions/web-serving-overview)</p>	<p>App Engine, Compute Engine, Google Kubernetes Engine</p>

Media tutorials

Tutorial	Additional Google Cloud Products
Creating a render farm in GCP using OpenCue (https://cloud.google.com/solutions/creating-a-render-farm-on-gcp-using-opencue)	Compute Engine, Container Registry, Cloud SQL
Processing Media Using Cloud Pub/Sub and Compute Engine (https://cloud.google.com/solutions/media-processing-pub-sub-compute-engine)	BigQuery, Pub/Sub, App Engine
Running C++ Binaries using Apache Beam for Grid Computing Workloads (https://cloud.google.com/solutions/running-external-binaries-beam-grid-computing)	Dataflow
Serverless Pixel Tracking Architecture (https://cloud.google.com/solutions/serverless-pixel-tracking)	BigQuery, Cloud CDN, Cloud Load Balancing
Architecture for using Cloud Pub/Sub for long-running tasks (https://cloud.google.com/solutions/using-cloud-pub-sub-long-running-tasks)	BigQuery, Pub/Sub, App Engine, Compute Engine

Networking tutorials

Tutorial	Additional Google Cloud Products
Automated Network Deployment: <ul style="list-style-type: none"> • Overview (https://cloud.google.com/solutions/automated-network-deployment-overview) • Startup (https://cloud.google.com/solutions/automated-network-deployment-startup) • Building a VPN Between GCP and AWS (https://cloud.google.com/solutions/automated-network-deployment-multicloud) 	Compute Engine, Virtual Private Cloud, Cloud Deployment Manager, Cloud Router
File Servers on Compute Engine (https://cloud.google.com/solutions/filers-on-compute-engine)	Compute Engine

Security tutorials

Tutorial	Additional Google Cloud Products
Best Practices for Using Cloud IAM and Cloud Billing in Higher Education (https://cloud.google.com/solutions/best-practices-for-iam-and-billing-in-higher-education)	Compute Engine, G Suite, Carrier Peering, Cloud Interconnect, Resource Manager
DDoS Mitigation on Google Cloud (https://cloud.google.com/files/GCPDDoSprotection-04122016.pdf)	Compute Engine, App Engine

Web development tutorials

Tutorial	Additional Google Cloud Products
Google Cloud Bookshelf App: <ul style="list-style-type: none"> • for .Net (https://cloud.google.com/dotnet/getting-started/tutorial-app) • for Go (https://cloud.google.com/go/getting-started/tutorial-app) • for Java (https://cloud.google.com/java/getting-started/tutorial-app) • for Node.js (https://cloud.google.com/nodejs/getting-started/tutorial-app) • for Python (https://cloud.google.com/python/getting-started/tutorial-app) • for PHP (https://cloud.google.com/php/getting-started/tutorial-app) • for Ruby (https://cloud.google.com/ruby/getting-started/tutorial-app) 	App Engine, Cloud SQL, Datastore, Pub/Sub, Compute Engine
Codelab: Build a Node.js Web App using Google Cloud (https://codelabs.developers.google.com/codelabs/cloud-nodejs)	Datastore
Deploying event-sourced systems with Cloud Spanner (https://cloud.google.com/solutions/deploying-event-sourced-systems-with-cloud-spanner)	Cloud Spanner, Pub/Sub, Cloud Functions, BigQuery, Memorystore

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Last updated December 4, 2019.