



Google Cloud Platform

cloud.google.com/



Google Cloud Platform - Starter Guide



Cloud Platform Family



Google Cloud Platform

Compute

Storage

Big Data/Analysis

Services



App Engine



Compute Engine



Cloud Storage



Cloud Datastore



Cloud SQL

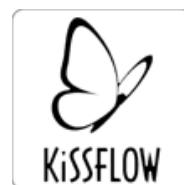
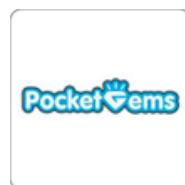
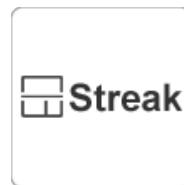
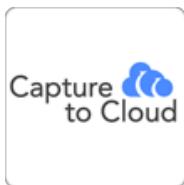


BigQuery



Cloud Endpoints

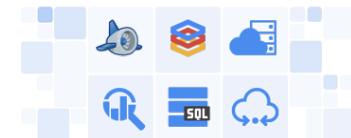
Google Cloud Platform Start Already



Start from Google Cloud Project



Start from Create Google Cloud Platform Project



Create Project

Google Developers Console

<http://cloud.google.com/console>

Projects

Billing

Account settings

CREATE PROJECT

New Project

Project name

My Project 1

Project ID

fabled-triumph-512

Create

Cancel

Enable Billing

Google Developers Console

◀ gcs-photo-share

Overview

APIs & auth

Permissions

Settings

Support

◀ gcs-photo-share

Overview

APIs & auth

Permissions

Settings

Support

App Engine

Compute Engine

Billing

Enable billing to access the full set of services and increased usage limits.

Enable billing

Delete project

Project owners may delete a project

Billing required

In order to use Google Compute Engine, you must enable billing in the project.

Enable Billing

Cancel

Related SDK / Tool Installation

Google Developers Console

simonsu@mitac.com.tw | Sign out

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Google Cloud SDK

The Google Cloud SDK contains command line tools and libraries that allow you to create, manage, and deploy resources on the Google Cloud Platform, including App Engine, Compute Engine, and Cloud Storage. [Learn more](#)

[Download](#)

Android Studio (Preview)

Android Studio is a new Android development environment based on IntelliJ IDEA. Android Studio includes a full tool set for building cloud based backends for your Android applications, including support for Java App Engine and Cloud Endpoints. [Learn more](#)

[Download](#)

Google Plugin for Eclipse

The Google Plugin for Eclipse is a set of software development tools that enables Java developers to quickly design, build, optimize, and deploy cloud-based applications with support for App Engine, Cloud SQL, and Cloud Endpoints. [Learn more](#)

[Download](#)

Cloud Playground

Cloud Playground is a place for developers to experiment and play with App Engine, Cloud Storage, and Cloud SQL, right from a browser. [Learn more](#)

[Launch](#)

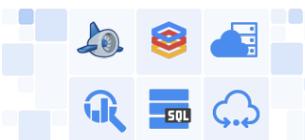
Cloud Partners

Discover the Google Cloud Platform ecosystem of technology and services partners. [Browse Partners](#)

Cloud Datastore



Cloud Datastore -
Schemaless object datastore with robust, scalable storage...





Features

- NoSQL database service
- Support ACID transactions
- High availability, Strong / Eventual consistency
- Google infrastructure & management
 - No planned downtime.
 - Replicated across multiple datacenters.
 - Automatically scales to handle traffic increase.
 - Monitored by Google engineers.



Developer Support

- GAE integrate (Python, Java, Go, Php)
- Local development server
- Auto / Customize index
- JSON API over REST
- GQL query language
- CLI tool - GCD
- Web tool - Google Cloud Console
- Usage statistic

Compare

Google Cloud Datastore

- Location
 - US, UK
- Access auth
 - Oauth2
- API
 - RESTful
 - XML
- Support
 - ACID transaction
 - Consistency

Getting Start...

Google Developers Console

+Simon 

< mitac-cp300 [CREATE ENTITY](#)

Overview APIs & auth Permissions Settings Support App Engine Compute Engine Cloud Storage

Cloud Datastore **Dashboard** Query Indexes

Cloud SQL BigQuery Cloud Development

Need to enable billing for your App Engine project or Cloud Datastore instance? Use the [App Engine Admin Console](#).

Create new entity

Namespace **Default** Kind **Comment**

Key **ID**

content	a string	Indexed		+	-
owner	a string	Indexed		+	-
ownerId	a string	Indexed		+	-
photoid	a number	Indexed		+	-
timestamp	a number	Indexed		+	-

[Create entity](#) [Cancel](#)

[Return to original console](#) [Send feedback](#) [Privacy & Terms](#)

Mapping RDBMS to Datastore

RDBMS	Table	Row	Column
Datastore	Kind	Entity	Property

GAE Code

```
 DatastoreService datastore =  
     DatastoreServiceFactory.getDatastoreService();  
 Entity employee = new Entity("Employee");  
 employee.setProperty("name", "Simon uy");  
 employee.setProperty("createDate", new Date());  
 employee.setProperty("isManager", true);  
 datastore.put(employee);
```

Quick Start

- Features: <https://cloud.google.com/products/cloud-datastore#features>
- Pricing: <https://cloud.google.com/products/cloud-datastore#pricing>
- Documentation: <https://cloud.google.com/products/cloud-datastore#documentation>

Google Cloud Storage



download sample applications, read howto guides, and learn how to use Google Cloud Storage with other Google products.

SAMPLES

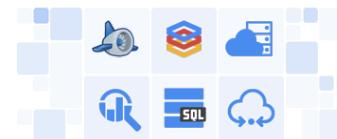
ask questions, discuss solutions, and join our vibrant community of developers.

COMMUNITY

watch videos, screen casts, and presentations that walk through how to use Google Cloud Storage.

VIDEOS

Google Cloud Storage -
Object storage service, without limit and global deployed





What is Cloud Storage?

Google Cloud Console

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New Bucket

Overview APIs & auth Permissions Billing Settings Support App Engine Compute Engine Cloud Storage Cloud Datastore Preview Cloud SQL BigQuery Cloud Development

Home /

- bds-report
- bds-tmp-usc1
- mitac-cp300
- mitac-cp300-eu
- mitac-cp300-us
- photos
- test23423452345

SDK, API Support

Web Console

GAE Integrate

Oauth2 Integrate

Unlimited

Global Deploy



GCS - Features

- High Capacity and Scalability
- Strong Data Consistency
- Google Cloud Console Projects
- Bucket Locations
- REST APIS
- OAuth 2.0 Authentication
- Authenticated Browser Downloads
- Google Account Support for Sharing

Compare

Google CloudStorage

- Location
 - US, UK
- Replicate strategy
 - Global
 - Specify zone
- Access auth
 - Oauth2
- Others
 - Publish as a web site
 - SDK, API

S3@AWS

- Location
 - US, EU, Asia
- Replicate strategy
 - Specify zone
- Access auth
 - API Key
- Others
 - Publish as a web site
 - SDK, API



Getting Start

Google Developers Console

◀ mitac-cp300

NEW FOLDER

Upload

Overview

Home / fw-log /

APIs & auth

NAME	SIZE	TYPE	LAST UPLOADED
<input type="checkbox"/> 4097903628/	—	Folder	—
<input type="checkbox"/> fw-logger/	—	Folder	—
<input type="checkbox"/> fw-udp10.log-20140113023001	113.21MB	application/json	2014年1月16日 AM11:47:04
<input type="checkbox"/> fw-udp10.log-20140113030001	86.18MB	application/json	2014年1月16日 AM11:59:50
<input type="checkbox"/> fw-udp10.log-20140113033001	86.2MB	application/json	2014年1月16日 PM12:04:25
<input type="checkbox"/> fw-udp10.log-20140113040001	85.12MB	application/json	2014年1月16日 PM12:08:29
<input type="checkbox"/> fw-udp10.log-20140113043001	81.48MB	application/json	2014年1月16日 PM12:12:19
<input type="checkbox"/> fw-udp10.log-20140113050001	82.26MB	application/json	2014年1月16日 PM12:16:03
<input type="checkbox"/> fw-udp10.log-20140113053001	71.06MB	application/json	2014年1月16日 PM12:19:43
<input type="checkbox"/> fw-udp10.log-20140113060001	52.79MB	application/json	2014年1月16日 PM12:22:25

Permissions

Settings

Support

App Engine

Compute Engine

Cloud Storage

Storage browser

Project dashboard ▾

Cloud Datastore

Cloud SQL

BigQuery ▾

Cloud Functions

Cloud Pub/Sub

GAE Code

```
BlobstoreService blobstoreService = BlobstoreServiceFactory.  
getBlobstoreService(); UploadOptions uploadOptions =  
UploadOptions.Builder  
.withGoogleStorageBucketName("<BUCKET>");  
String uploadUrl =  
blobstoreService.createUploadUrl("/<callback>", uploadOptions);  
resp.getWriter()  
.println("<form action=" + uploadUrl +  
" method=\"post\" enctype=\"multipart/form-data\">");
```

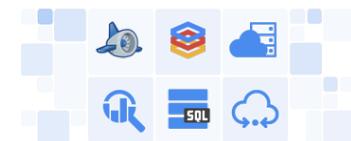
Quick Start

- Features: <https://cloud.google.com/products/cloud-storage#features>
- Case Studies: <https://cloud.google.com/products/cloud-storage#case-studies>
- Pricing: <https://cloud.google.com/products/cloud-storage#pricing>
- Documentation: <https://cloud.google.com/products/cloud-storage#documentation>

Google Cloud SQL

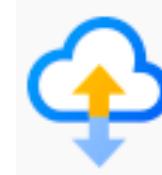


Google Cloud SQL - Full managed MySQL database instance



Features

- Familiar Infrastructure
- Flexible Charging
- Security, Availability, Durability
- EU and US Data Centers
- Easier Migration; No Lock-in
- Managed by Google



Connect tools

- Using the command line prompt
- API console SQL prompt
- Admin tools and reporting tools
- External applications
- From App Engine: Java, Python
- From Google Apps Script scripts

Compare

Google CloudSQL

- DB type
 - MySQL
- Location
 - US, UK
- Availability strategy
 - Backup
 - Replicate
- Security
 - SSL
 - Access Firewall
- Global strategy
 - Specify zone
 - With AppEngine
- Service integrate
 - Dump to Cloud Storage
 - BigQuery Integrate

RDS@AWS

- DB type
 - MySQL, Oracle, Microsoft SQL Server, PostgreSQL
- Location
 - US, EU, Asia
- Availability strategy
 - Backup
 - Snapshot
- Security
 - Access Firewall
 - VPC/VPN

SQLServer@Azure

- DB type
 - Microsoft SQL
- Location
 - US, EU, Asia
- Availability strategy
 - Data sync
- Security
 - Access Firewall

Getting Start

Google Developers Console

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< mitac-cp300 [Edit](#) [Import...](#) [Restart](#) [Delete](#)

Overview APIs & auth Permissions Settings Support App Engine Compute Engine Cloud Storage Cloud Datastore **Cloud SQL** BigQuery Cloud Development Activities

mitac-cp300:iii-foodsafety [Overview](#) Operations Access Control

Storage [1 hour](#) [6 hours](#) [12 hours](#) [1 day](#) [2 days](#) [4 days](#) [7 days](#) [14 days](#) [30 days](#)

Storage used

Total bytes

618.69M
464.01M
309.34M
154.67M

Mar 03 13:35 Mar 04 00:10 Mar 04 10:45 Mar 04 21:20 Mar 05 07:55 Mar 05 18:30 Mar 06 05:05 Mar 06 15:40 Mar 07 02:15 Mar 07 13:30

Storage used 618.69M

Properties

Storage Used	618.7MB
Region	United States
Backup Window	10:00 AM — 02:00 PM
Binary Log	Disabled
File System Replication	Synchronous
Preferred location	None

Backups

Mar 7, 2014 10:35:04 AM	Restore
Mar 6, 2014 11:04:48 AM	Restore
Mar 5, 2014 10:48:20 AM	Restore
Mar 4, 2014 10:44:05 AM	Restore
Mar 3, 2014 10:08:19 AM	Restore
Mar 2, 2014 10:04:57 AM	Restore

GAE Code

```
Class.forName("com.mysql.jdbc.GoogleDriver");
String url = //Cloud SQL
    "jdbc:google:mysql://instance-name/";
Connection conn = DriverManager.getConnection(url);

String url= //Local Test
    "jdbc:google:mysql://instance-name/";
Connection conn = DriverManager.getConnection(url);
```

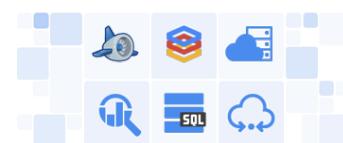
Quick Start

- Features: <https://cloud.google.com/products/cloud-sql#features>
- Case Studies: <https://cloud.google.com/products/cloud-sql#case-studies>
- Pricing: <https://cloud.google.com/products/cloud-sql#pricing>
- Documentation: <https://cloud.google.com/products/cloud-sql#documentation>

Google BigQuery

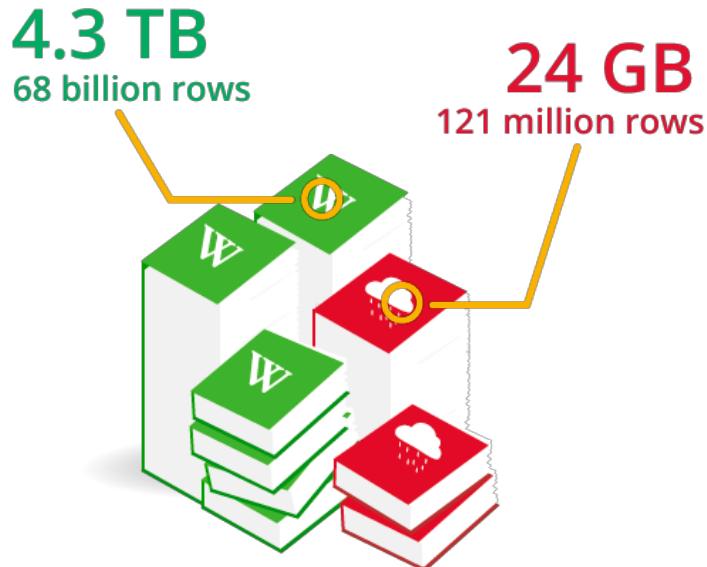


Google BigQuery - Big data with SQL like query feature, but fast...



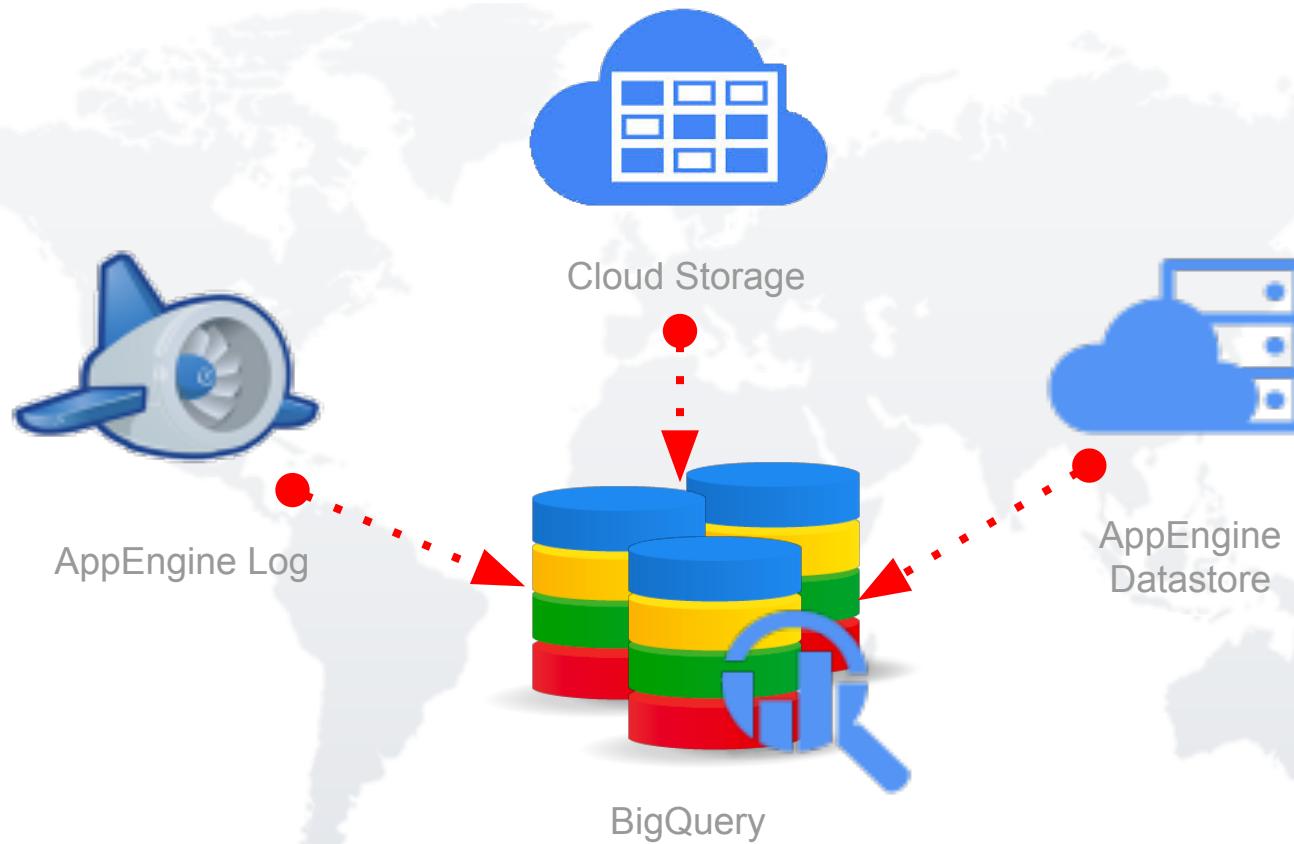


BigQuery Features



- TB level data analysis
- Fast mining response
- SQL like query language
- Multi-dataset interactive support
- Cheap and pay by use
- Offline job support

Google Cloud Platform Integrate





Supported User Interfaces

- Browser tool
- CLI - bq command
- REST API
- SDK (client libraries)
- 3'rd party tools



INFORMATICA®

QlikView



JASPERSOFT



METRIC INSIGHTS

PERVASIVE

talend*

SQLstream

Simba
Technologies

Compare

Google BigQuery

- Service strategy
 - Base on Google search
- Store Location
 - Global
- Query strategy
 - SQL like language
- Security
 - OAuth2
- Source
 - JSON, CSV
- Developer support
 - Java, Python SDK
 - Apps Script SDK
 - RESTful API
 - 3rd Party tools

EMR@AWS

- Service strategy
 - Base on Google released Map/Reduce spec
- Store Location
 - Base on EMR machines
- Query strategy
 - Map/Reduce java sdk
- Security
 - N/A
- Source
 - Text, CSV
- Developer support
 - Java SDK

Getting Start

搜尋 圖片 郵件 雲端硬碟 日曆 協作平台 網上論壇 聯絡人 更多 ▾ simonsu@mitac.com.tw ▾ 

Google bigquery

COMPOSE QUERY

New Query

```
1 SELECT TOP(word, 30) AS word, COUNT(*) AS word_count
2 FROM publicdata:samples.shakespeare WHERE LENGTH(word) > 10;
```

RUN QUERY Save Query Enable Options 

No datasets found in this project.
Please create a dataset or select a new project from the menu above.

EaseLife Cloud 

No datasets found in this project.
Please create a dataset or select a new project from the menu above.

publicdata:samples

- github_nested
- github_timeline
- gsod
- natality
- shakespeare
- trigrams
- wikipedia

New Query

```
1 SELECT TOP(word, 30) AS word, COUNT(*) AS word_count
2 FROM publicdata:samples.shakespeare WHERE LENGTH(word) > 10;
```

RUN QUERY Save Query Enable Options 

Recent Queries

Query Text:
SELECT TOP(word, 30) AS word, COUNT(*) AS word_count FROM publicdata:samples.shakespeare WHERE LENGTH(word) > 10;
Edit Query Mar 6

Job ID: easelife-gcp-project:job_ChL9rOOsTlGSr9GGLZb3pLzJ6pg
Start Time: 1:51pm, 6 Mar 2014
End Time: 1:51pm, 6 Mar 2014
Bytes Processed: 0 B (results cached)
Destination Table: easelife-gcp-project_19e73947767acfef031a1d0bf1173d359b4e3e18.anon09f885951a39819112c9c7a01fc01e4218c8051

Edit Query Run Query Save Query Show Previous Results

Query Text:
SELECT TOP(word, 30) AS word, COUNT(*) AS word_count FROM publicdata:samples.shakespeare WHERE LENGTH(word) > 10;
Edit Query Feb 26

Query Text:
SELECT TOP(word, 300) AS word, COUNT(*) AS word_count FROM publicdata:samples.shakespeare WHERE LENGTH(word) > 10;
Edit Query Feb 26

Query Text:
SELECT TOP(word, 300) AS word, COUNT(*) AS word_count FROM publicdata:samples.shakespeare WHERE LENGTH(word) > 10 LIMIT 10;
Edit Query Feb 26

Query Text:
SELECT TOP(word, 300) AS word, COUNT(*) AS word_count FROM publicdata:samples.shakespeare WHERE LENGTH(word) > 10 limit 10;
Edit Query Feb 26

Apps Script Code

```
var queryResults = BigQuery.Jobs.query(request, projectId);
var jobId = queryResults.jobReference.jobId;
queryResults = BigQuery.Jobs.getQueryResults(projectId, jobId);
var rows = queryResults.rows;
while (queryResults.pageToken) {
  queryResults = BigQuery.Jobs.getQueryResults(projectId, jobId, {
    pageToken: queryResults.pageToken
  });
  rows = rows.concat(queryResults.rows);
}
```

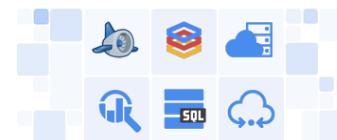
Quick Start

- Features: <https://cloud.google.com/products/bigquery#features>
- Case Studies: <https://cloud.google.com/products/bigquery#case-studies>
- Pricing: <https://cloud.google.com/products/bigquery#pricing>
- Documentation: <https://cloud.google.com/products/bigquery#documentation>

Google App Engine

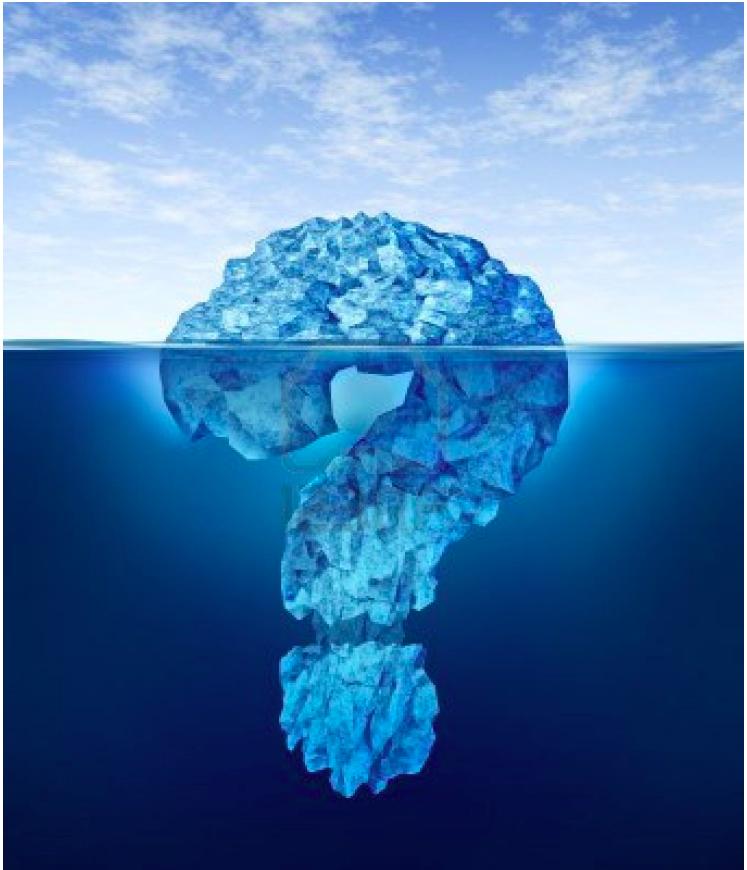


Google App Engine - A managed, scaled, robust PaaS





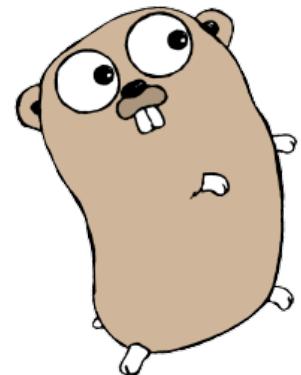
Why GAE?



- Load balancing
- Caching
- IDE tool
- Monitor
- Distribute
- HA / DR
- Version control
- Resources
- Pay by use
- Common
- Scale out / in



Google App Engine



Your Choice = AUTO SCALE = Lower Cost



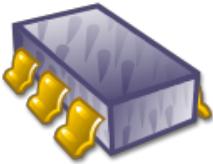
Features



Cloud Storage



Datastore



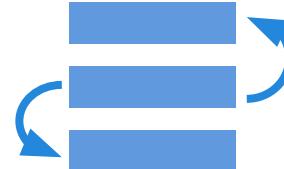
Memcache



CloudSQL



BigQuery



Task Queue



Cron

Compare

Google AppEngine

- Java, PHP, Python, Go support
- Services:
 - Memcache
 - Task Queue
 - Cron
 - Datastore
 - CloudSQL
 - CloudStorage
 - Eage Cache
 - Google APIs
- Others:
 - IDE full support
 - Auto scale in/out
 - Global already
- New:
 - Publish with git

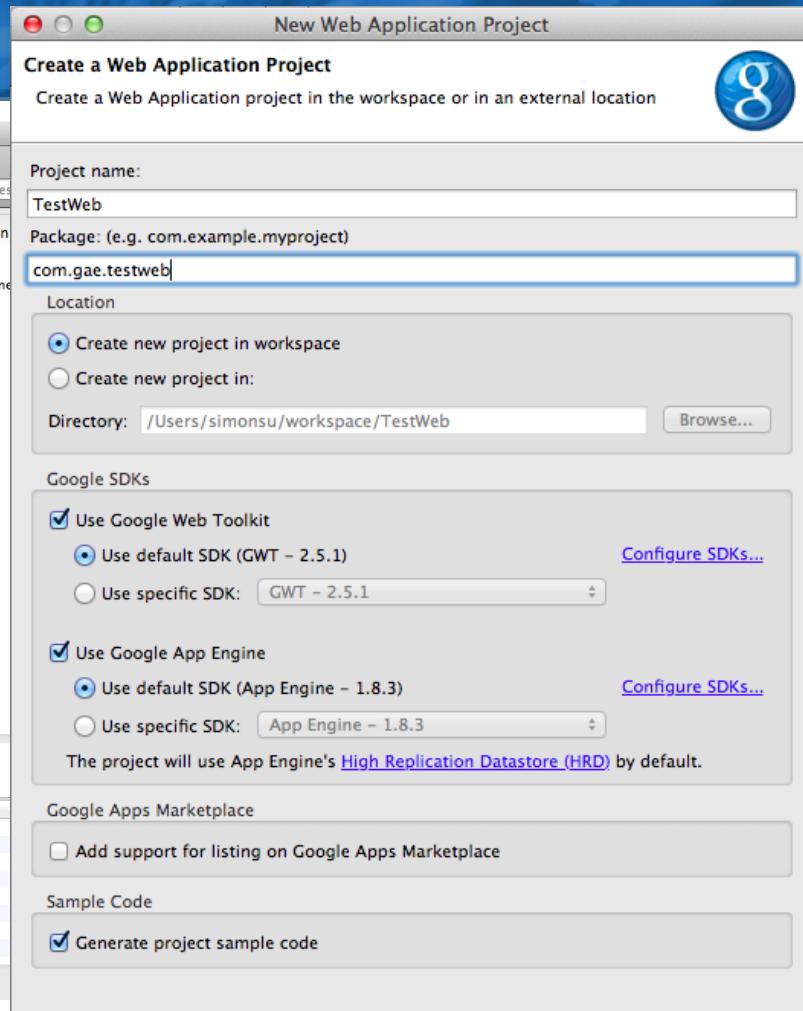
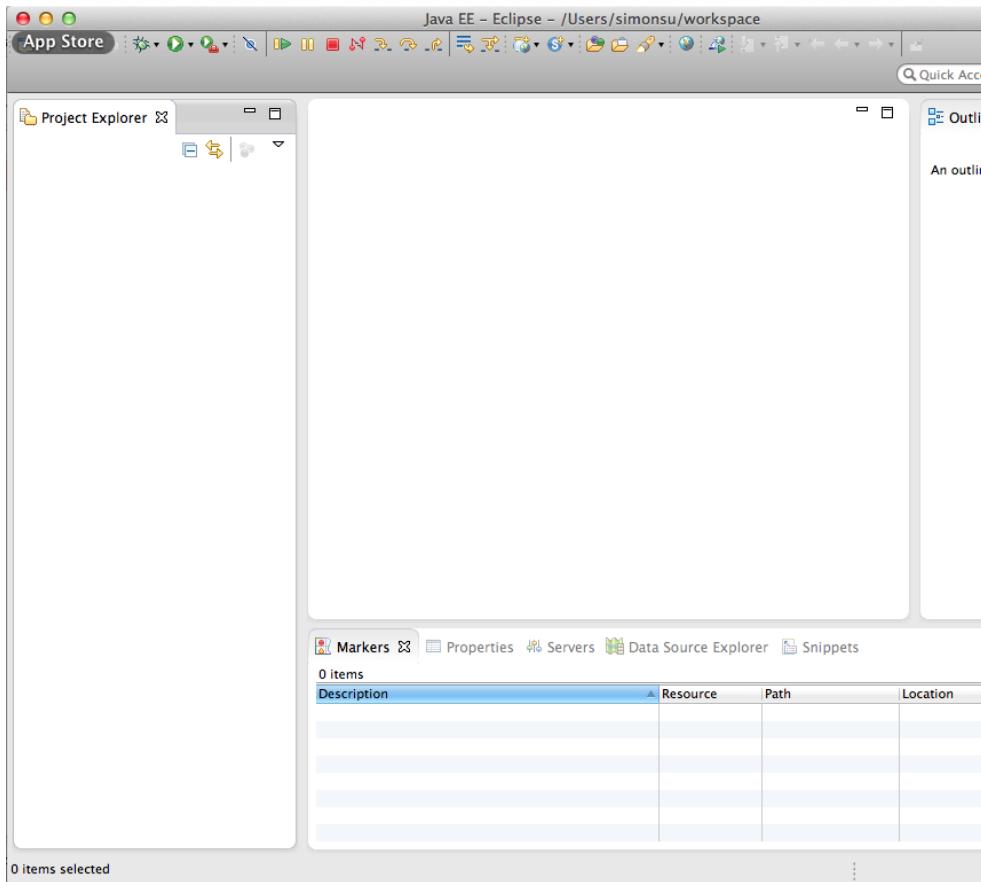
Heroku

- Ruby, Java, Node.js, Python support
- Service:
 - Vendor provided apps
- Others:
 - CLI only
 - Manual scale in/out
 - Publish with git

Azure

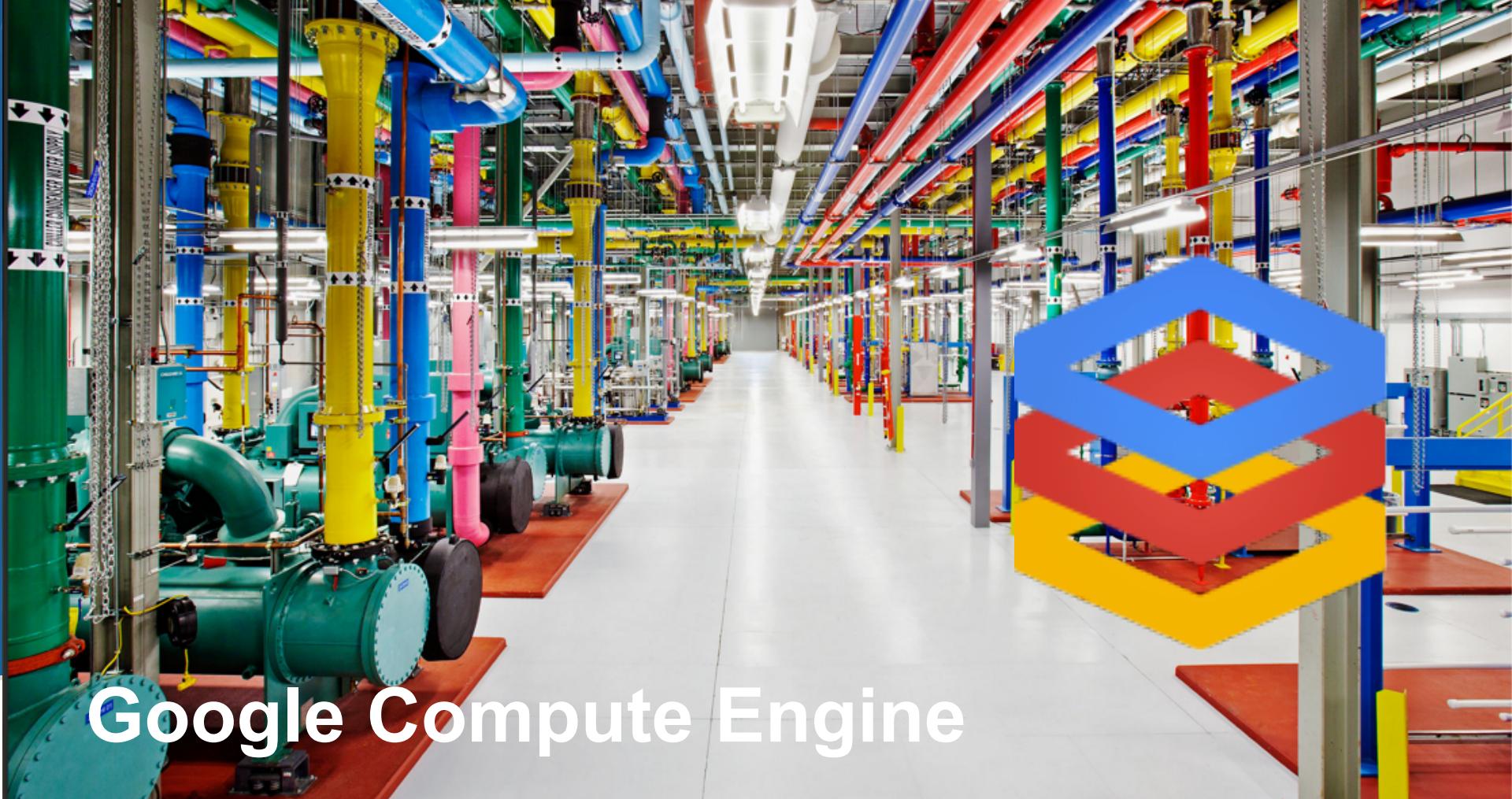
- IIS, Node.js, Python, PHP support
- Service:
 - SQL Service
 - Table Service
 - Blob Service
 - Media Services
 - Service Bus
 - Notification Hubs
 - Scheduler
 - BizTalk Services
 - Active Directory
 - Multi-Factor Authentication
- Others:
 - IDE full support
 - Publish with git

Getting Start



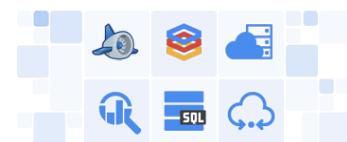
Quick Start

- Features: <https://cloud.google.com/products/app-engine#features>
- Case Studies: <https://cloud.google.com/products/app-engine#case-studies>
- Pricing: <https://cloud.google.com/products/app-engine#pricing>
- Documentation: <https://cloud.google.com/products/app-engine#documentation>



Google Compute Engine

Google Computing Engine - Run virtual machines at Google Scale





Features

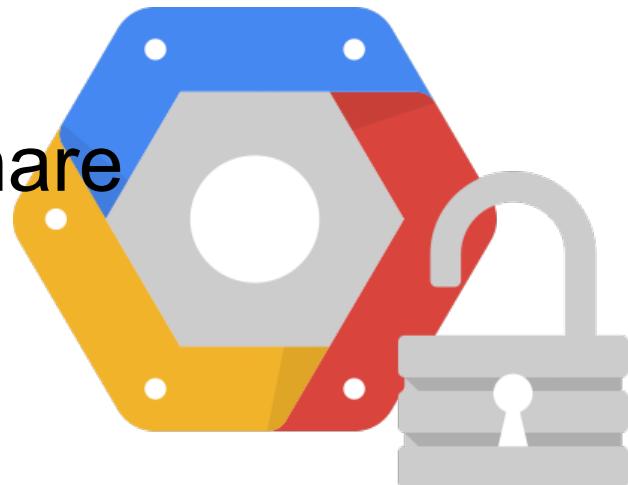
- Scale, performance, and value
- Flexibility and an Open Environment
- Predictable Performance
- Strong Security
- Environmental Impact
- Big Router
- Global fiber





Google Style Management

- Fancy management console
- Share permissions with Google Account
- Tag for machine, ACL, routing
- Software Defined Networking
- Start Script
- Mass technical documents share



Compare

Google Compute Engine

- Location
 - US, UK
- Machine strategy
 - CentOS, Debian, Ubuntu, SuSE, Redhat...
 - Bring self-kernel
- Network strategy (SDN)
 - L4 load balancer
 - Routing configure
 - Firewall ACL
- Other
 - TAG, Start Script, Image, Snapshot
 - Availability policy
 - auto-restart
 - on host maintenance

EC2@AWS

- Location
 - US, EU, Asia
- Machine strategy
 - Amazon Linux, Ubuntu, Redhat, SuSE, Windows
- Network strategy
 - ELB
 - CloudFront
 - Global IDC
 - Firewall ACL
- Other
 - TAG, User Data Script, AMI, Snapshot
 - IAM
 - CloudWatch

VM@Azure

- Location
 - US, EU, Asia
- Machine strategy
 - Windows, Ubuntu, SuSE, OpenLogic, Oracle Linux
- Network strategy
 - VPC
 - Traffic Manager
- Other
 - Resizable

Getting Start

Google Developers Console 

mitac-cp300 

Overview APIs & auth Permissions Settings Support App Engine Compute Engine **VM instances** Disks Snapshots Images Networks Metadata Load balancing Zones Operations Quotas Cloud Storage Cloud Datastore Cloud SQL BigQuery 

Create a new instance

Name  lowercase, no spaces

Description  Optional

Tags  comma separated

Metadata  key value  

Summary

us-central1-a
1 vCPU, 3.75 GB RAM
default
Default network for the project

Note: [per-minute charges](#) will begin now

Create **Cancel**

Equivalent [REST](#) or [command line](#)

Location and resources

Zone  us-central1-a

Machine type  n1-standard-1

Boot source  New persistent disk from image

Image  Choose an image

Additional disks  Optional Choose a disk

Networking

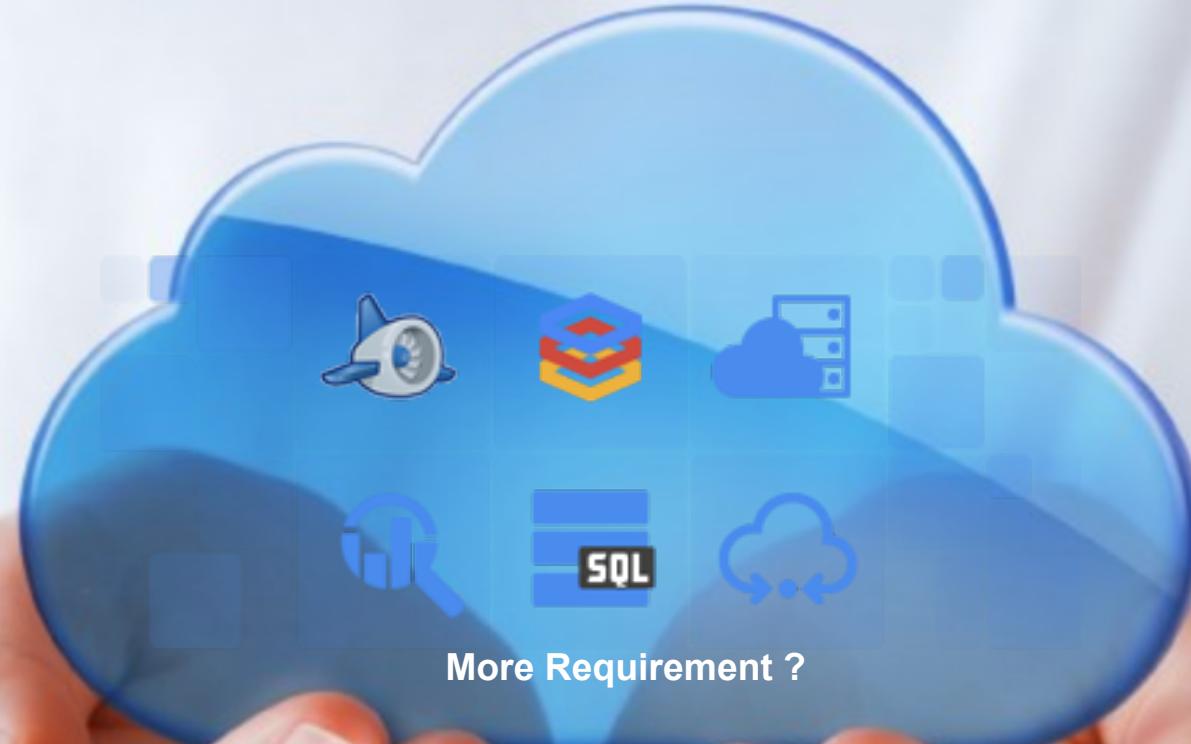
[Return to original console](#) [Send feedback](#) [Privacy & Terms](#)

Start a Google Machine

```
gcloud compute instances create my-new-instance \
    --service-account my-new-service-account@my-project.iam.gserviceaccount.com \
    --image-family centos-6-x86_64 \
    --image-project centos-cloud \
    --machine-type n1-standard-1 \
    --network default \
    --subnet default \
    --tags http-server,https-server \
    --scopes https://www.googleapis.com/auth/compute \
    --region us-central1
```

Quick Start

- Features: <https://cloud.google.com/products/compute-engine#features>
- Case Studies: <https://cloud.google.com/products/compute-engine#case-studies>
- Pricing: <https://cloud.google.com/products/compute-engine#pricing>
- Documentation: <https://cloud.google.com/products/compute-engine#documentation>



More Requirement ?