



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

Cloud Computing

Working with Google Cloud

Carlos Sánchez Páez

14th March 2019



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- Computing
- Networking
- Big Data
- Machine Learning

4 Let's try it!



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- Computing
- Networking
- Big Data
- Machine Learning

4 Let's try it!

What is Google Cloud Platform?



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Set of Google's computing resources.

What is Google Cloud Platform?



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Set of Google's computing resources.
- They are internally used by Google for their products.

What is Google Cloud Platform?



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Set of Google's computing resources.
- They are internally used by Google for their products.
- Number 3 in the public cloud market (behind AWS and Azure).

What is Google Cloud Platform?



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Set of Google's computing resources.
- They are internally used by Google for their products.
- Number 3 in the public cloud market (behind AWS and Azure).
- Offers IaaS, PaaS, SaaS over more than 50 products.

Main advantages



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- You can freely choose the resources for your Virtual Machine or use a template.

Main advantages



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- You can freely choose the resources for your Virtual Machine or use a template.
- Lots of interactive tutorials.

Main advantages



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- You can freely choose the resources for your Virtual Machine or use a template.
- Lots of interactive tutorials.
- Project Control Panel.

Main advantages



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

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- You can freely choose the resources for your Virtual Machine or use a template.
- Lots of interactive tutorials.
- Project Control Panel.
- Android & IOS App.

Main advantages



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- You can freely choose the resources for your Virtual Machine or use a template.
- Lots of interactive tutorials.
- Project Control Panel.
- Android & IOS App.
- Online terminal or CLI available.

Index



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- Computing
- Networking
- Big Data
- Machine Learning

4 Let's try it!

Who uses it?



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!



The
New York
Times



More than 4 million paying customers (February 2018).

Index



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- Computing
- Networking
- Big Data
- Machine Learning

4 Let's try it!

Google Cloud Platform products

What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

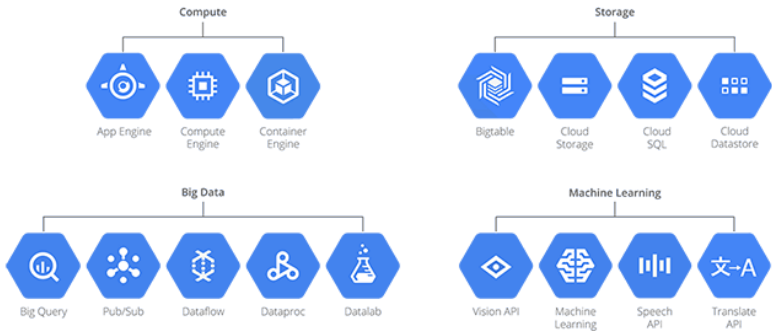
Networking

Big Data

Machine Learning

Let's try it!

Google Cloud Platform



Index



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- **Computing**
- Networking
- Big Data
- Machine Learning

4 Let's try it!

GCP Computing products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- App Engine: scalable apps in a serverless platform (PaaS).



GCP Computing products



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Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- App Engine: scalable apps in a serverless platform (PaaS).
- Compute Engine: scalable virtual machines (IaaS).



GCP Computing products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- App Engine: scalable apps in a serverless platform (PaaS).
- Compute Engine: scalable virtual machines (IaaS).
- Kubernetes: run containers (Docker).



Index



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- Computing
- **Networking**
- Big Data
- Machine Learning

4 Let's try it!

GCP Networking products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Cloud Armor: protection against DoS attacks.



GCP Networking products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Cloud Armor: protection against DoS attacks.
- Network Service Tiers: optimize network for performance or cost.



GCP Networking products



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Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Cloud Armor: protection against DoS attacks.
- Network Service Tiers: optimize network for performance or cost.
- Load balancing: intelligent scaling through multiple regions.



Index



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- Computing
- Networking
- **Big Data**
- Machine Learning

4 Let's try it!

GCP Big Data products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Dataprep: clean data for analysis.



GCP Big Data products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Dataprep: clean data for analysis.
- Dataflow: batch data processing.



GCP Big Data products



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Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Dataprep: clean data for analysis.
- Dataflow: batch data processing.
- Genomics (for bioinformatics)



Index



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- Computing
- Networking
- Big Data
- **Machine Learning**

4 Let's try it!

GCP Machine Learning products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Vision API: recognise objects in an image.



GCP Machine Learning products



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Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Vision API: recognise objects in an image.
- Speech API: voice to text.



GCP Machine Learning products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Vision API: recognise objects in an image.
- Speech API: voice to text.
- Natural Language API: extract information from a text (sentiment, importance in the whole text).



GCP Machine Learning products



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

- Vision API: recognise objects in an image.
- Speech API: voice to text.
- Natural Language API: extract information from a text (sentiment, importance in the whole text).
- Translate API: Google Translate.



Index



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

1 What is Google Cloud Platform?

2 Who uses it?

3 Google Cloud Platform products

- Computing
- Networking
- Big Data
- Machine Learning

4 Let's try it!

Source code



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

```
import webapp2
class MainPage(webapp2.RequestHandler):
    def get(self):
        self.response.headers
            ['Content-Type'] = 'text/plain'
        self.response.write('Hello world!')

app = webapp2.WSGIApplication([
    ('/', MainPage),
], debug=True)
```

Step 1: creating the project

What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

Google Cloud Platform

cc-test


App Engine

Tu primera aplicación con Python

1 Selecciona una ubicación

¿En qué región te gustaría distribuir tu aplicación?

Tu aplicación se distribuirá desde la región seleccionada. Cualquier persona puede usar la aplicación, pero los usuarios que estén más cerca tendrán una menor latencia. La región del proyecto no se puede cambiar más adelante.



Google Map data ©2019 Terms of Use

Selecciona una región

us-central

Siguiente

Control panel



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

The screenshot shows the Google Cloud Platform console dashboard for a project named 'cc-test'. The interface is in Spanish and features a top navigation bar with the Google Cloud logo, project name, and search bar. The main content area is divided into several sections:

- Panel de Control (Control Panel):** Contains a summary of project information, resources, and actions.
- Información del proyecto (Project Information):** Displays project details such as name, ID, and number.
- Recursos (Resources):** Shows the current resource usage, including storage and compute.
- Trazas (Traces):** Provides a view of the project's activity and logs.
- Empezar (Get Started):** Offers a list of quickstart guides and tutorials.
- APIs (APIs):** Displays a list of APIs available to the project.
- Estado de Google Cloud Platform (Google Cloud Platform Status):** Shows the overall status of the platform and links to the status page.
- Error Reporting:** Provides a view of error reports and links to the error reporting page.
- Noticias (News):** Displays the latest news and updates from Google Cloud.
- Documentación (Documentation):** Offers a collection of documentation resources.

The dashboard also includes a sidebar with navigation links and a bottom status bar with the URL: <https://console.cloud.google.com/home/dashboard?project=cc-test-234210>.

Step 2: setting up the project in gcloud CLI



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

```
csp98@csp98-Linux: ~/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world
csp98@csp98-Linux: ~/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world 129x24

~/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world } master ● gcloud config set project cc-test-234210
~/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world } master ●
```

Step 3: testing the app in the local machine



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

```
dev_appserver.py app.yaml
dev_appserver.py app.yaml 130x24
~/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world Master dev_appserver.py app.yaml
INFO 2019-03-11 11:03:45,751 devappserver2.py:278] Skipping SDK update check.
INFO 2019-03-11 11:03:45,800 api_server.py:275] Starting API server at: http://localhost:37851
INFO 2019-03-11 11:03:45,803 dispatcher.py:256] Starting module "default" running at: http://localhost:8080
INFO 2019-03-11 11:03:45,803 admin_server.py:150] Starting admin server at: http://localhost:8000
INFO 2019-03-11 11:03:47,827 instance.py:294] Instance PID: 21952
```

Step 3: testing the app in the local machine



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

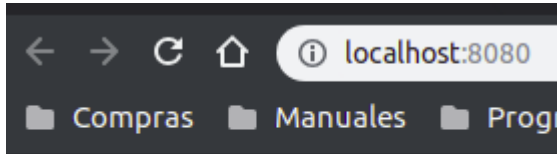
Computing

Networking

Big Data

Machine Learning

Let's try it!



Hello world!

Step 4: modifying the app



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

```
dev_appserver.py app.yaml
dev_appserver.py app.yaml 130x24
~/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world master ● dev_appserver.py
INFO 2019-03-11 11:03:45,751 devappserver2.py:278] Skipping SDK update check.
INFO 2019-03-11 11:03:45,800 api_server.py:275] Starting API server at: http://localhost:37851
INFO 2019-03-11 11:03:45,803 dispatcher.py:256] Starting module "default" running at: http://localhost:8000
INFO 2019-03-11 11:03:45,803 admin_server.py:150] Starting admin server at: http://localhost:8000
INFO 2019-03-11 11:03:47,827 instance.py:294] Instance PID: 21952
INFO 2019-03-11 11:04:10,239 module.py:861] default: "GET / HTTP/1.1" 200 12
INFO 2019-03-11 11:04:50,116 module.py:434] [default] Detected file changes:
/home/csp98/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world/main.py
INFO 2019-03-11 11:04:51,146 instance.py:294] Instance PID: 22186
```

Step 4: modifying the app



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

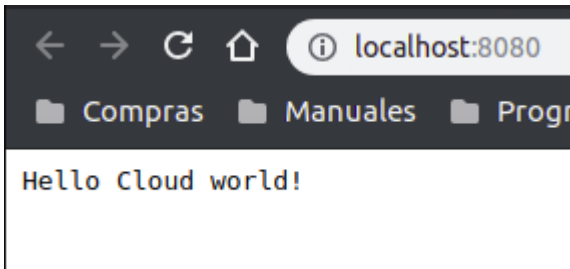
Computing

Networking

Big Data

Machine Learning

Let's try it!



Step 5: deploying the app



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

```
gcloud app deploy
gcloud app deploy 130x24
~/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world master gcloud app deploy
Services to deploy:

descriptor:    [/home/csp98/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world/app.yaml]
source:        [/home/csp98/Desktop/test_gc/python-docs-samples/appengine/standard/hello_world]
target project: [cc-test-234210]
target service: [default]
target version: [20190311t120101]
target url:     [https://cc-test-234210.appspot.com]

Do you want to continue (Y/n)?
```

Step 5: deploying the app



What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

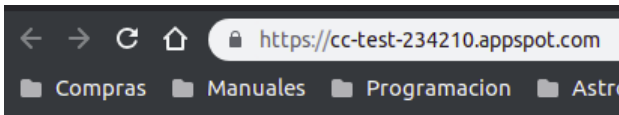
Computing

Networking

Big Data

Machine Learning

Let's try it!





What is Google Cloud Platform?

Who uses it?

Google Cloud Platform products

Computing

Networking

Big Data

Machine Learning

Let's try it!

Thanks for your attention!

Source code available at <http://www.github.com/csp98>

