Google-Cloud-Platform's

why what how

Strayn 2016.10.12

WHY Google?

Free
for 60 days

Fancy
ML-firsted Google

WHY Google?

And it WORKs...

Free
for 60 days

Fancy
ML-firsted Google

How GCP works

What we do locally

1) Collect your data

2) Label your data

```
"sad", "Feeling kind of low...."
"excited", "OMG! Just had a fabulous day!"
"bored", "Eating eggplant. Why bother?"
```

What we do with GCP

1) Upload data to STORAGE

2) Train it with API

3) Predict as you want

Why google is better?

BAG OF WORDS

- Data Collections

  api/rvest/tm

- Correlation Mining

  qdap

- Fancy Displays

  wordcloud/network/pyramidplot/
  treeplot

GOOGLE

- Entities

  Save time for Dictionary of Nouns

- Sentiment

  Save time for learner tuning

- Syntax

  Save time for dictionary of grammar

WHAT?

Google Cloud Platform   dmg6 ▾

Home

- **Dashboard**
- Activity

Dashboard

✏ CUSTOMIZE

ℹ Project: dmg6

ID: dmg6-145123 (# 129451453671)

→ Manage project settings

▬ Billing

$0.00
Approximate charges so far this month

→ View detailed charges

Resources

- App Engine
  0 instances
- Compute Engine
  1 instance
- Cloud Storage
  3 buckets

⧉ Trace

⚙ Compute Engine

CPU (%) ▾

```
0.12
0.1
0.08
0.06
0.04
0.02
       Oct 12, 13:30        Oct 12, 14:11
```

☑ CPU: 0.133

→ Go to the Compute Engine dashboard

API APIs

Requests (requests/sec)

```
0.01
0.008
0.006
0.004
0.002
       Oct 12, 13:30        Oct 12, 14:11
```

☑ Requests: 0

→ Go to APIs overview

◎ App Engine

Summary (count/sec) ▾

There is no data for this chart.

→ Go to the App Engine dashboard

ⓘ Error Reporting

No sign of any errors. Have you set up Error Reporting?

→ Set up Error Reporting

📅 News

New undersea cable expands capacity for Google APAC customers and users
2 hours ago

Transform your business; become a Google Certified Professional Data Engineer

Google Cloud Platform   dmg6 ▾

Home

Dashboard

Dashboard

Activity

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Google APIs   dmg6 ▾

API Manager

- Dashboard
- Library
- Credentials

Library

Google APIs   Private APIs

🔍 Search all 100+ APIs

Popular APIs

Google Cloud APIs
Compute Engine API
BigQuery API
Cloud Storage Service
Cloud Datastore API
Cloud Deployment Manager API
Cloud DNS API
Cloud Monitoring API
Cloud Pub/Sub API
Cloud SQL API
Cloud Storage JSON API
Compute Engine Instance Group
Manager API
Compute Engine Instance Groups API
Container Engine API
Prediction API
Genomics API
Vision API

⌄ Less

Google Maps APIs
Google Maps Android API
Google Maps SDK for iOS
Google Maps JavaScript API
Google Places API for Android
Google Places API for iOS
Google Maps Roads API
Google Static Maps API
Google Street View Image API
Google Maps Embed API
Google Places API Web Service
Google Maps Geocoding API
Google Maps Directions API
Google Maps Distance Matrix API
Google Maps Geolocation API
Google Maps Elevation API
Google Maps Time Zone API

⌄ Less

Google Apps APIs
Drive API
Calendar API
Gmail API
Sheets API
Google Apps Marketplace SDK
Admin SDK
Contacts API
CalDAV API

⌄ Less

Mobile APIs
Google Cloud Messaging ⧉
Google Play Game Services
Google Play Developer API
Google Places API for Android

Social APIs
Google+ API
Blogger API
Google+ Pages API
Google+ Domains API

YouTube APIs
YouTube Data API
YouTube Analytics API
YouTube Reporting API

Advertising APIs
AdSense Management API
DCM/DFA Reporting And Trafficking API
Ad Exchange Seller API
Ad Exchange Buyer API
DoubleClick Search API
DoubleClick Bid Manager API

Other popular APIs
Analytics API
Translate API
Custom Search API
URL Shortener API
PageSpeed Insights API
Fusion Tables API
Web Fonts Developer API

Google API toolbox

Link back

Google Cloud Platform   dmg6 ▾

API Manager

🔷	**Dashboard**
⚏	Library
⚐	Credentials

Dashboard   ➕ ENABLE API

API	▾ Requests	Errors	Error ratio	Latency, median	Latency, 98%	
☑ Google Compute Engine API	5	0	0%	— ⍰	— ⍰	Disable
Admin SDK	—	—	—	—	—	Disable
Analytics API	—	—	—	—	—	Disable
BigQuery API	—	—	—	—	—	Disable
Contacts API	—	—	—	—	—	Disable
Container Analysis API Private API ⍰	—	—	—	—	—	Disable
Genomics API	—	—	—	—	—	Disable
Gmail API	—	—	—	—	—	Disable
Google Calendar API	—	—	—	—	—	Disable
Google Cloud APIs	—	—	—	—	—	Disable
Google Cloud Container Builder API	—	—	—	—	—	Disable
Google Cloud Dataproc API	—	—	—	—	—	Disable
Google Cloud Dataproc Control API Private API ⍰	—	—	—	—	—	Disable
Google Cloud Datastore API	—	—	—	—	—	Disable
Google Cloud Deployment Manager API	—	—	—	—	—	Disable
Google Cloud Deployment Manager V2 API	—	—	—	—	—	Disable
Google Cloud DNS API	—	—	—	—	—	Disable
Google Cloud Monitoring API	—	—	—	—	—	Disable
Google Cloud Pub/Sub API	—	—	—	—	—	Disable
Google Cloud SQL	—	—	—	—	—	Disable
Google Cloud SQL API	—	—	—	—	—	Disable
Google Cloud Storage	—	—	—	—	—	Disable
Google Cloud Storage JSON API	—	—	—	—	—	Disable
Google Cloud Vision API	—	—	—	—	—	Disable
Google Compute Engine Instance Group Manager API	—	—	—	—	—	Disable

APIs I currently enable

Google Cloud Platform

搜索   控制台

Why Google   Products   Solutions   Launcher   Pricing   Customers   **Documentation**   Support   Partners

Contact Sales

Cloud Prediction API
Product Overview
Documentation
Quickstart

How-to Guides
All How-to Guides
Developer's Guide
Smart Autofill Spreadsheets Add-on
⏵ Use Cases

APIs & Reference
All APIs & Reference
⏵ V1.6 (Latest) ⚙
Samples and Libraries
Prediction Gallery
PMML Support
Performance Tips
Batch HTTP Requests

Resources
All Resources
Pricing
Glossary
Release Notes
⏵ Support
Service Level Agreement

Prediction API   ⟩   Documentation

☆ ☆ ☆ ☆ ☆

Pricing and Terms of Service

Pricing

This page describes the pricing schedule for using the Google Prediction API, including free usage quota.

When charging in local currency, Google will convert the prices listed into applicable local currency pursuant to the conversion rates published by leading financial institutions.

Free Quota

Usage is free for the first six months, up to the following limits per Google Cloud Platform Console project. This free quota applies even when billing is enabled, until the six-month expiration time.

- **Usage limits:**
  - **Predictions**: 100 predictions/day
  - **Hosted model predictions**: Hosted models have a usage limit of 100 predictions/day/user across all models.
  - **Training**: 5MB trained/day
  - **Streaming updates**: 100 streaming updates/day
- **Lifetime cap:** 20,000 predictions.
- **Expiration:** Free quota expires six months after activating Google Prediction for your project in the Google Cloud Platform Console.

Note that some Prediction API usage scenarios depend on Google Cloud Storage, which has different pricing terms from the Prediction API.

Paid Usage

Paid usage comes with a 99.9% availability service level agreement. Read more about the SLA here.

Link back

Cooked data on kaggle sizes 3.4MB

the Prediction API.

Paid Usage

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Monitor your usage on the Google Cloud Platform Console. Any usage beyond the free usage quota will fail if you have not enabled billing for the project. Once you exceed the free quota, the following prices and limits apply:

- **Base fee:** $10 monthly fee per Google Cloud Platform Console project.
- **Usage fees:**
  - **Prediction:**
    - **10,000** predictions/month: $0.00
    - **10,001+** predictions/month: $0.50/1,000 predictions beyond the initial 10,000
  - **Training:**
    - **$0.002/MB bulk trained** (maximum size of each dataset: 2.5GB)
    - **0-10,000 streaming updates:** $0.00
    - **10,001+ streaming updates:** $0.05/1,000 updates beyond the initial 10,000.
- **Usage limits:**
  - If you intend to make more than 40,000 predictions/day, please contact us.
  - Google Prediction has a default limit of 2,000,000 predictions/day per project for your own models.
  - Hosted models have a usage limit of 100 predictions/day/user across all demonstration models. Developers can set higher paid usage limits for models they create. Please see each model's documentation for more details.

> ⚠️ **Important:** These charges do *not* include any Google Cloud Storage fees that might be required to hold training data. Please see the pricing sheet for Google Cloud Storage to determine any additional costs that you might incur.

Terms of Service

And it's not a bad idea to pay

HOW?

HOW?
RTFM

Basically 3 ways to use it

1)Through Google API Manager
2)Through Spreadsheet
3)Through Python

Sample Codes

#In the request body, supply data with the following structure:

```
{
  "input": {
    "csvInstance": [
      'hello'
    ]
  }
}
```

```
import httplib2, webapp2
from oauth2client.appengine import AppAssertionCredentials
from apiclient.discovery import build

http =
AppAssertionCredentials('https://www.googleapis.com/auth/prediction').authorize(httplib2.Http())
service = build('prediction', 'v1.6', http=http)

class MakePrediction(webapp2.RequestHandler):
  def get(self):
    result = service.hostedmodels().predict(project='414649711441',
hostedModelName='sample.sentiment', body={'input' {'csvInstance': ['hello']}}).execute()

    self.response.headers['Content-Type'] = 'text/plain'
    self.response.out.write('Result: ' + repr(result))

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

App Engine+Compute Engine

Terms you might confuse

Model

1) Hosted/Trained models
2) Query Parameters
3) Batch: send multi query
4) PMML

Security

1) OAUTH 2.0
2) KEY

Get hands dirty

```
root@my_ubu:~$ bash next
If you want to share my GCP, reply this email with the gmail you want to be used
on this GCP project, and I will send invitation to this address.Or if you want to
play your own GCP, it's OK too.
root@my_ubu:~$ sudo shutdown -h now
```