

# Manual



User GoogleCloud (Free 300 Dollars)

# Prerequisite

Recommend to login on google chrome with gmail account.

บัญชีของฉัน

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## ควบคุม ปกป้อง และรักษาบัญชีของคุณ ให้ปลอดภัย ทั้งหมดนี้ ในที่เดียว

บัญชีของฉันช่วยให้คุณเข้าถึงการตั้งค่าได้อย่างรวดเร็ว รวมถึงเครื่องมือที่ช่วยให้คุณปกป้องข้อมูล ปกป้องความเป็นส่วนตัว และเลือกว่าจะให้ข้อมูลของคุณท่าให้บริการต่างๆ ของ Google ทำงานให้คุณตื้นตันได้อย่างไร

<p>การลงชื่อเข้าใช้และความปลอดภัย</p> <p>ควบคุมรหัสผ่านและการเข้าถึงบัญชี Google</p> <p>การลงชื่อเข้าใช้ Google</p> <p>กิจกรรมบนโลกไซเบอร์และภัยคุกคาม</p>	<p>ข้อมูลและความเป็นส่วนตัว</p> <p>จัดการการตั้งค่าการเปิดเผยข้อมูลของคุณและข้อมูลที่เราใช้ในกระบวนการเปลี่ยนประสบการณ์ในแบบของคุณ</p> <p>ข้อมูลส่วนตัว</p> <p>ลักษณะกิจกรรมใน Google ของคุณ</p>	<p>การตั้งค่าบัญชี</p> <p>ตั้งค่าภาษา การเข้าถึง และการตั้งค่าอื่นๆ ที่ช่วยคุณในการใช้งาน Google</p> <p>ภาษาและเครื่องมือป้อนข้อมูล</p> <p>ภาษาอังกฤษ</p>
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# Register for Google Cloud

1. Open url: <https://cloud.google.com> and "Try IT FREE"

The screenshot shows the Google Cloud Platform homepage. At the top, there's a navigation bar with links like 'Why Google', 'Products', 'Solutions', 'Launcher', 'Pricing', 'Customers', 'Documentation', 'Support', and 'Partners'. Below the navigation bar, a large blue button labeled 'TRY IT FREE' is prominently displayed. To its right is a 'CONTACT SALES' button. The main heading 'Build What's Next' is followed by the subtext 'Better software. Faster.' Below this, there's a list of three bullet points: '✓ Use Google's core infrastructure, data analytics and machine learning.', '✓ Secure and fully featured for all enterprises.', and '✓ Committed to open source and industry leading price-performance.' At the bottom of the page, there are three sections: 'GCP Region Expansion', 'Cloud Video Intelligence', and 'Google Cloud & Intel'. Each section has a brief description and a link to a specific page.

2. Select Country and Access Condition

The screenshot shows the 'Google Cloud Platform ฟรี' (Google Cloud Platform Free) registration form. The form asks for the user's country and access conditions. Under 'ประเทศ' (Country), the dropdown menu is set to 'ไทย' (Thailand). Under 'การยอมรับว่า' (I accept), two checkboxes are selected: 'ใช่' (Yes) and 'ไม่' (No). A note below the checkboxes states: 'โปรดตกลงว่าการใช้บริการและ API ที่เกี่ยวข้องจะต้องดูแลด้านความปลอดภัยของข้อมูลและการใช้งานในเครือข่ายที่ถูกกฎหมาย' (I agree that the use of services and APIs will be handled in accordance with laws and regulations regarding data protection and usage). At the bottom of the form, there's a 'ย้อนหลังและดำเนินการต่อ' (Back and Continue) button. To the right of the form, there's a sidebar with three informational cards: 1. 'เข้าถึงผลิตภัณฑ์ Cloud Platform ทั่วโลก' (Access global Cloud Platform products) - describes using Google's infrastructure, data analytics, and machine learning. 2. 'เครดิต \$300 ฟรี' (Free credit \$300) - describes getting up to \$300 in free credits for Google Cloud Platform over 12 months. 3. 'ไม่มีการเรียกเก็บเงินอัตโนมัติหลังจากสิ้นสุดการทดลองใช้ฟรี' (No automatic billing after the free trial period ends) - describes the trial ending after 12 months.

3. Input require data and accept condition (Need to input credit card/some confidential data)

The screenshot shows the Google Cloud Platform Free Trial landing page. It features a blue header bar with the text "ลอง Cloud Platform ฟรี" and "Google". Below the header, there's a section titled "ชื่อและที่อยู่" (Name and Address) containing a profile icon, the name "ประเทศไทย", and the address "ชื่อธุรกิจ: Kubernetes Thailand Lab". A "เพิ่ม" (Add) button is next to the address field. To the right, there's a summary box with three items: 1. "เข้าถึงผลิตภัณฑ์ Cloud Platform ทั้งหมด" (Access all Cloud Platform products) with a note about using it for Firebase and Google Maps API. 2. "เครดิต \$300 ฟรี" (Free credit \$300) with a note about using it for Google Cloud Platform services. 3. "ไม่มีการเรียกเก็บเงินอัตโนมัติหลังจากสิ้นสุดการทดลองใช้ฟรี" (No automatic billing after the trial ends) with a note about the trial period being 12 months.

4. After finished. Choose to create new project name “KubernetesProject” and record project code for reference

The screenshot shows the Google Cloud Platform dashboard for the project "KubernetesProject". The left sidebar lists various services: API, การเรียกเก็บเงิน, Cloud Launcher, การสนับสนุน, IAM และผู้ดูแลระบบ, ประมวลผล, App Engine, Compute Engine, Container Engine, พัฒนาระบบคลาวด์, and เครือข่าย. The main dashboard has tabs for "หน้าแรก" (Home), "หน้าแดชบอร์ด" (Dashboard), and "กิจกรรม" (Activities). The "Dashboard" tab is selected. It displays several cards: 1. "ข้อมูลโครงการ" (Project Information) showing the project name "KubernetesProject" and ID "#221262056775". 2. "ทรัพยากร" (Resources) which is currently empty. 3. "ติดตาม" (Monitoring) showing a line graph for API requests per second over time, with a value of 0.9667. 4. "สถานะ Google Cloud Platform" (Google Cloud Platform Status) showing a green status bar. 5. "การเรียกเก็บเงิน" (Billing) showing a balance of \$0.00 and a note about using it for the trial period. 6. "การรายงานข้อผิดพลาด" (Error Reporting) showing a note about reporting errors to the developer.

# Install GCloud Tool

Following Gcloud Instruction/Download-install with step like below

## 1. Install gcloud tool

Ref: <https://cloud.google.com/sdk/downloads>

The screenshot shows the Google Cloud Platform Documentation page for the Cloud SDK. The left sidebar contains navigation links for Cloud SDK, Quickstarts, How-to Guides, APIs & Reference, and Concepts. The main content area is titled "Installing Cloud SDK" and provides instructions for downloading and installing the Google Cloud SDK. It includes sections on System requirements, Installation options, and Versioned archives. The right sidebar lists system requirements, installation options, and versioned archives.

Google Cloud Platform

Documentation

Cloud SDK Documentation

Installing Cloud SDK

This page contains instructions for downloading and installing Google Cloud SDK.

System requirements

Cloud SDK runs on Linux, Mac OS X and Windows, and requires Python 2.7.x. Some tools bundled with Cloud SDK have additional requirements. For example, Java tools for Google App Engine development require Java 1.7 or later.

Installation options

Do one of the following to install Cloud SDK:

- Download a [versioned archive](#) of any release, including previous releases
- Run the [interactive installer](#) to download and install the latest release
- Use [apt-get](#) (Debian and Ubuntu only) to download and install the latest release
- Use [yum](#) (Red Hat and CentOS) to download and install the latest release

These installation methods install the default Cloud SDK components, which include `gcloud`, `gsutil` and `bq` command-line tools. You can [install additional components](#) using the `gcloud components install` command, or by installing the appropriate `deb` or `RPM` packages.

Versioned archives

Cloud SDK provides downloadable, versioned archives for each release. Each versioned archive contains a self-contained installation of Cloud SDK in a directory named `google-cloud-sdk` that can be copied to any location on your file system.

## 1.1 For windows (Google Cloud SDK)

1.1.1 Click "Cloud SDK Installer" for continue install

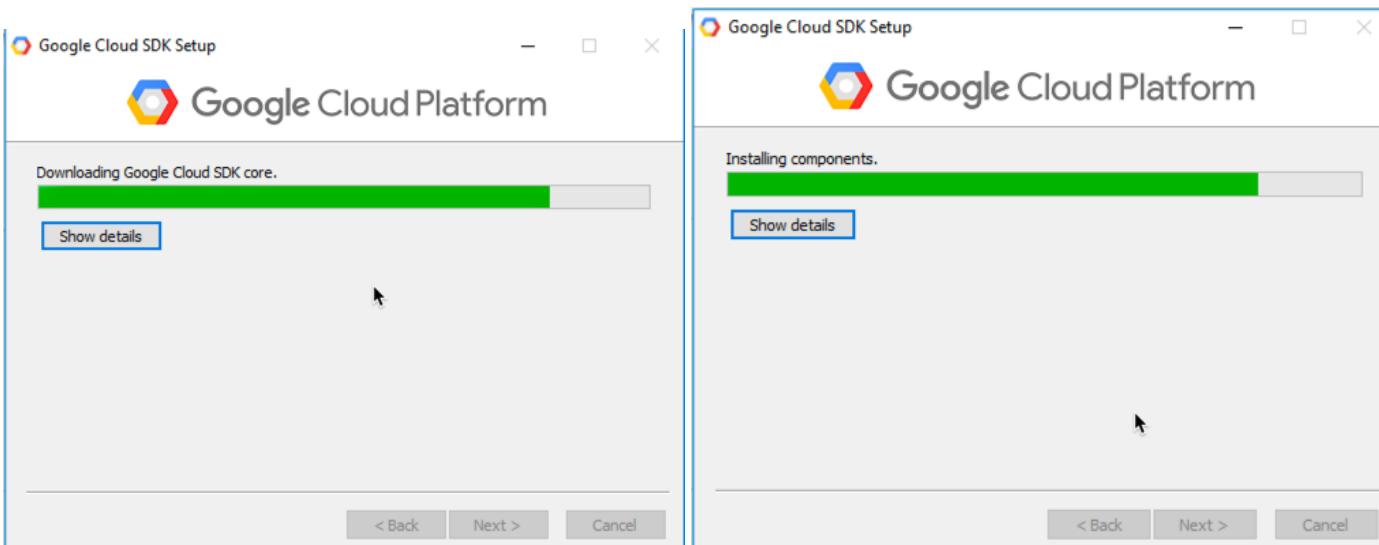
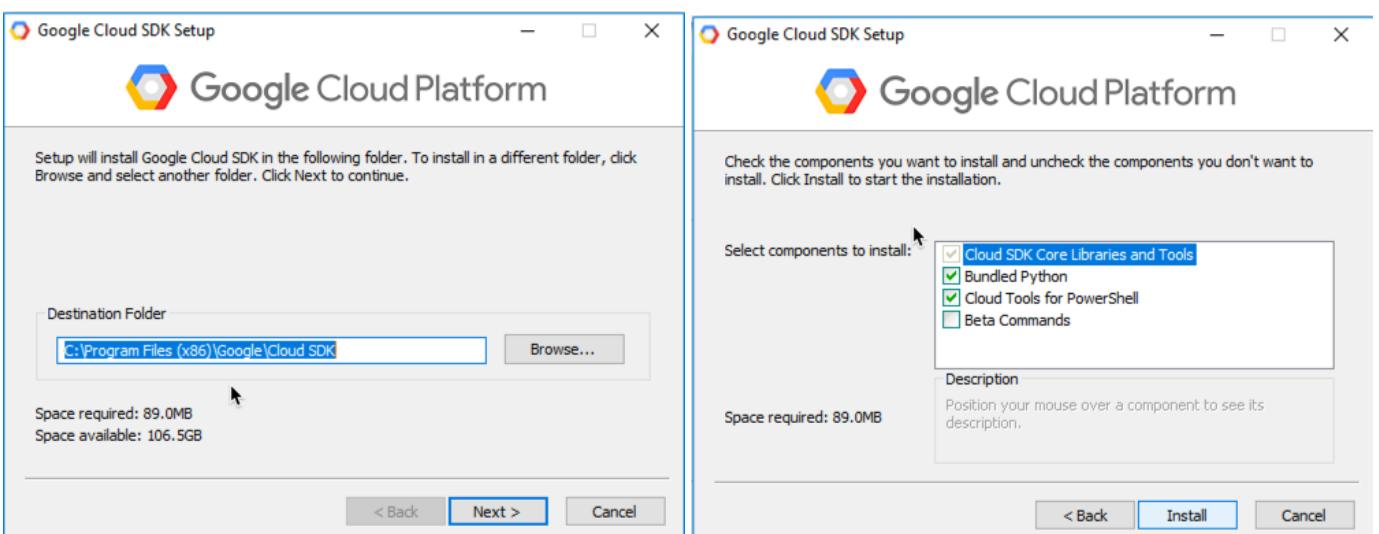
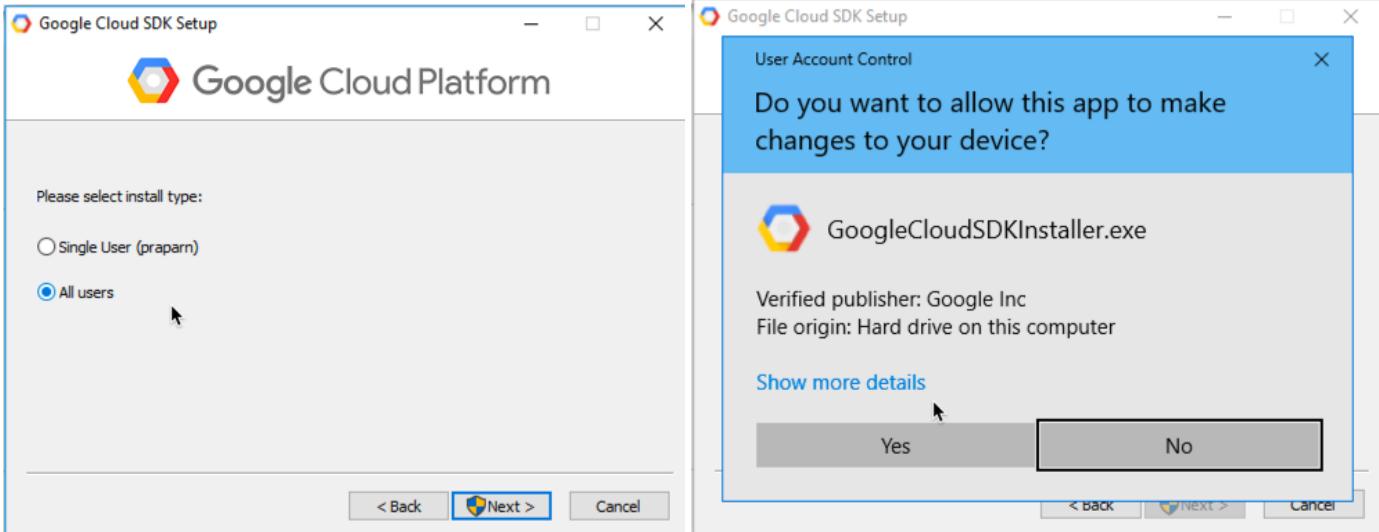
The screenshot shows the Google Cloud Platform homepage with the 'Cloud SDK' section selected. A note at the top right says: 'Note: The installer is designed to make it easy for a human user to install the latest version of Cloud SDK. If you want to use a script to install a specific version in non-interactive mode – for example, to install the same version automatically every time you build a production system – use a [versioned archive of Cloud SDK instead](#)'. Below this, there are tabs for LINUX, MAC OS X, and WINDOWS, with WINDOWS selected. The steps for Windows installation are listed:

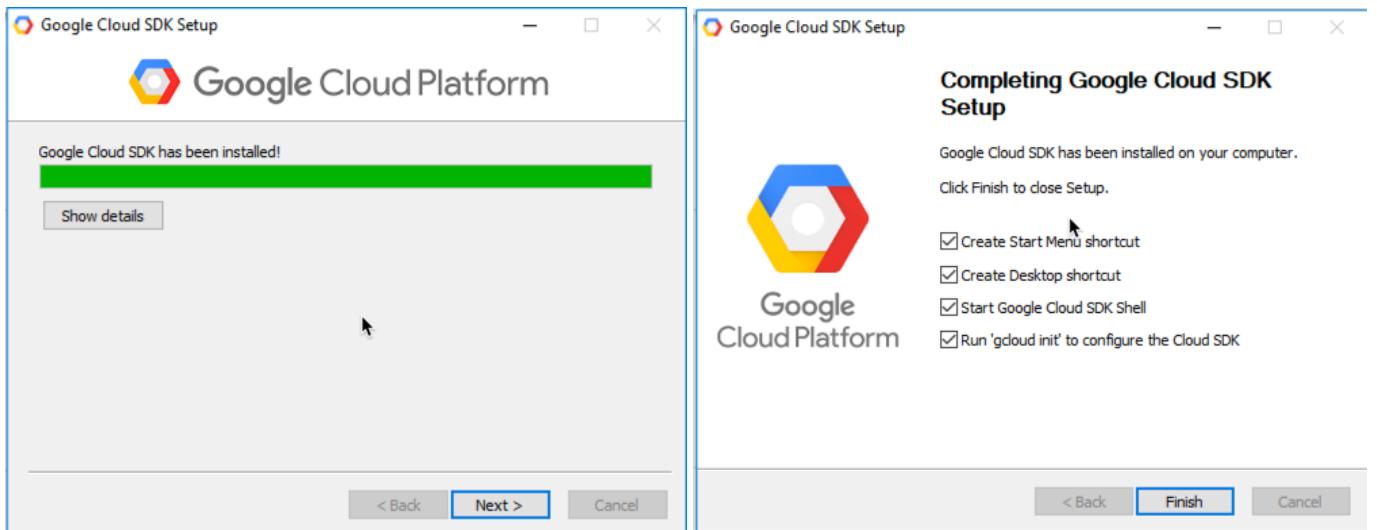
1. Download the [Cloud SDK installer](#). The installer is signed by Google Inc.
2. Launch the installer and follow the prompts. If Python 2 with a release version of Python 2.7.9 or later is not installed on your system, make sure the option to install **Bundled Python** is checked. Cloud SDK doesn't currently support Python 3.
3. After installation has completed, accept the following options:
  - Start Cloud SDK Shell
  - Run gcloud initThe installer starts a terminal window and runs the `gcloud init` command.
4. The default installation does not include the App Engine extensions required to deploy an application using `gcloud` commands. These components can be installed using the [Cloud SDK component manager](#).

A modal dialog at the bottom asks 'What do you want to do with GoogleCloudSDKInstaller.exe (360 KB)?' with options 'Run', 'Save', 'Cancel', and a close button. The URL <https://dl.google.com/dl/cloudsdk/channels/rapid/GoogleCloudSDKInstaller.exe> is shown in the address bar.

1.1.2 Following installation step

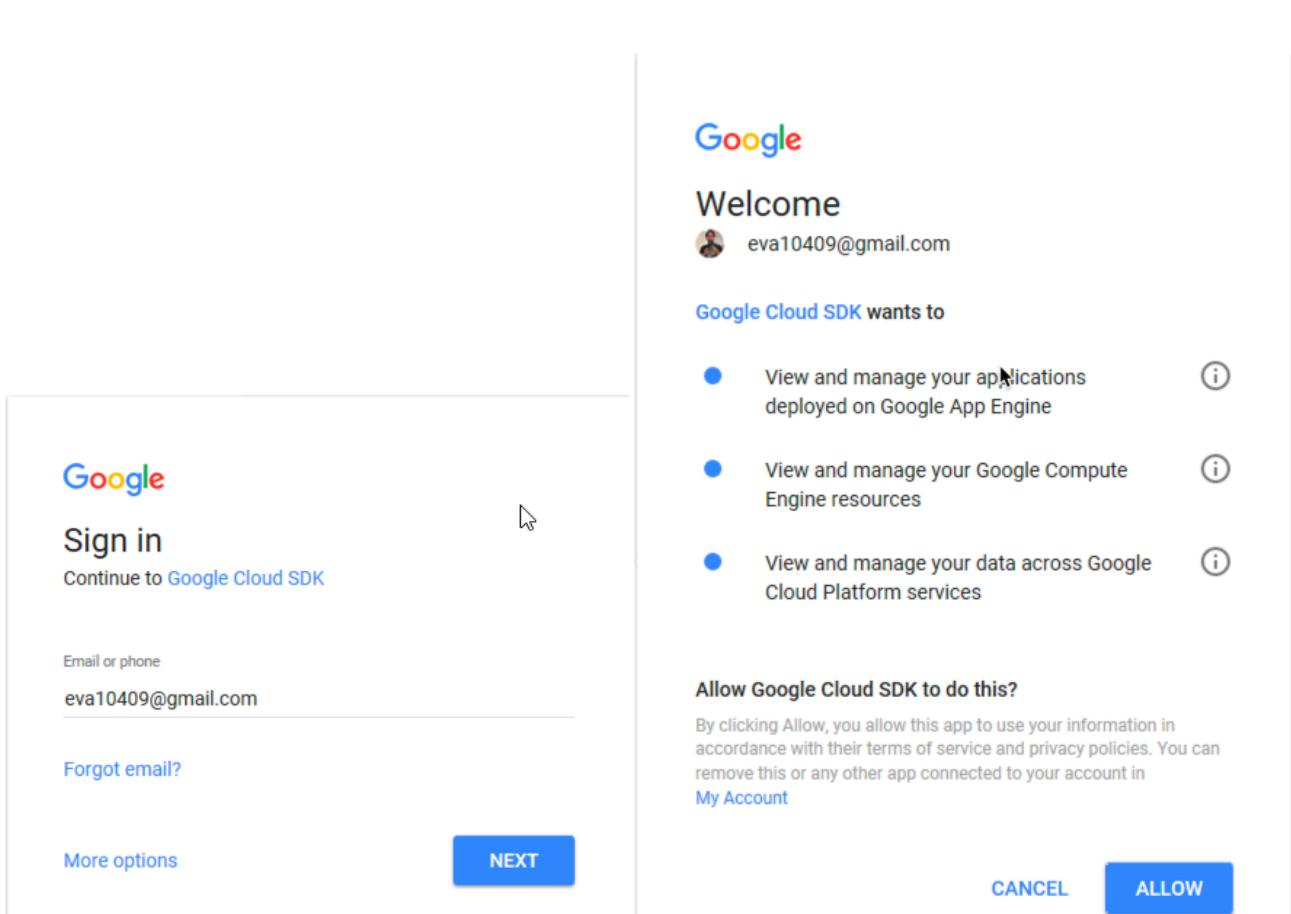
The screenshot shows two windows of the Google Cloud SDK Setup wizard. The left window is the 'Welcome to Google Cloud SDK Setup' screen, which includes a logo, a welcome message, and a checkbox for sending anonymous usage statistics. The right window is the 'Google Cloud Platform' license agreement screen, which contains the Apache License v. 2.0 text, a link to the full license, and a note about additional terms for Cloud Platform products. Both windows have 'Next >', 'Cancel', and 'I Agree' buttons.





```
Select gcloud init
Welcome to the Google Cloud SDK! Run "gcloud -h" to get the list of available commands.
Welcome! This command will take you through the configuration of gcloud.
Your current configuration has been set to: [default]
You can skip diagnostics next time by using the following flag:
  gcloud init --skip-diagnostics
Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic (1/1 checks) passed.
You must log in to continue. Would you like to log in (Y/n)? Y
Your browser has been opened to visit:
https://accounts.google.com/o/oauth2/auth?redirect_uri=http%3A%2F%2Flocalhost%3A8085%2F&prompt=select_account&response_type=code&client_id=32555940559.apps.googleusercontent.com&scope=https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fccloud-platform+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fappengine.admin+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2F%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&access_type=offline
```

1.1.3 Login via browser to google cloud



Cloud SDK



[SEND FEEDBACK](#)

You are now  
authenticated with the  
Google Cloud SDK!

**Contents**

Information about command-line tools and client libraries

Tutorials

Feedback

The authentication flow has completed successfully. You may close this window, or check out the resources below.

Information about command-line tools ↑  
and client libraries

To learn more about `gcloud` command-line commands, see the [gcloud Tool Guide](#).

- 1.1.1 Back to terminal. Select project that we used to create project that we will operate and select default compute region to "n" for finished

```
Select C:\WINDOWS\system32\cmd.exe
You are logged in as: [eval0409@gmail.com].
Pick cloud project to use:
[1] dockerswarm-174112
[2] kubernetesproject-170714
[3] Create a new project
Please enter numeric choice or text value (must exactly match list
item): 2
Your current project has been set to: [kubernetesproject-170714].
Do you want to configure a default Compute Region and Zone? (Y/n)? n
Created a default .boto configuration file at [C:\Users\praparn\.boto]. See this file and https://cloud.google.com/storage/docs/gsutil/commands/config for more
information about configuring Google Cloud Storage.
Your Google Cloud SDK is configured and ready to use!
* Commands that require authentication will use eval0409@gmail.com by default
* Commands will reference project `kubernetesproject-170714` by default
Run `gcloud help config` to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts and/or projects.
Run `gcloud topic configurations` to learn more.

Some things to try next:
* Run `gcloud --help` to see the Cloud Platform services you can interact with. And run `gcloud help COMMAND` to get help on any gcloud command.
* Run `gcloud topic -h` to learn about advanced features of the SDK like arg files and output formatting
```

- 1.1.2 Setup location/region/zone by command:

```
gcloud config set project <your project id>
gcloud config set compute/region asia-east1
gcloud config set compute/zone asia-east1-a
```

```
C:\Users\praparn>gcloud config set project kubernetesproject-170714
Updated property [core/project].
C:\Users\praparn>gcloud config set compute/region asia-east1
Updated property [compute/region].
C:\Users\praparn>gcloud config set compute/zone asia-east1-a
Updated property [compute/zone].
```

### 1.1.3 Test create machine by command:

```
gcloud compute instances create "kubernetes-ms" --machine-type "n1-standard-1" --maintenance-policy "MIGRATE" --image "ubuntu-1604-xenial-v20170619a" --image-project "ubuntu-os-cloud" --boot-disk-size "10" --boot-disk-type "pd-standard" --boot-disk-device-name "kubernetes-ms"
```

```
C:\Users\praparn>gcloud compute instances create "kubernetes-ms" --machine-type "n1-standard-1" --maintenance-policy "MIGRATE" --image "ubuntu-1604-xenial-v20170619a" --image-project "ubuntu-os-cloud" --boot-disk-size "10" --boot-disk-type "pd-standard" --boot-disk-device-name "kubernetes-ms"
WARNING: You have selected a disk size of under [200GB]. This may result in poor I/O performance. For more information, see: https://developers.google.com/compute/docs/disks#performance.
Created [https://www.googleapis.com/compute/v1/projects/kubernetesproject-170714/zones/asia-east1-a/instances/kubernetes-ms].
NAME      ZONE      MACHINE_TYPE  PREEMPTIBLE  INTERNAL_IP  EXTERNAL_IP  STATUS
kubernetes-ms  asia-east1-a  n1-standard-1          10.140.0.2   35.194.181.96  RUNNING
C:\Users\praparn>
```

### 1.1.4 Test ssh to target machine by command: gcloud compute ssh "kubernetes-ms"

```
Select Command Prompt - gcloud compute ssh "kubernetes-ms"
NAME      ZONE      MACHINE_TYPE  PREEMPTIBLE  INTERNAL_IP  EXTERNAL_IP  STATUS
kubernetes-ms  asia-east1-a  n1-standard-1          10.140.0.2   35.194.181.96  RUNNING
C:\Users\praparn>gcloud compute ssh "kubernetes-ms"
WARNING: The PuTTY PPK SSH key file for gcloud does not exist.
WARNING: The public SSH key file for gcloud does not exist.
WARNING: The private SSH key file for gcloud does not exist.
WARNING: You do not have an SSH key for gcloud.
WARNING: SSH keygen will be executed to generate a key.
This tool needs to create the directory [C:\Users\praparn\.ssh] before being able to generate SSH keys.

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

1.1.5 Answer Y for continue and store key in cache "Y"

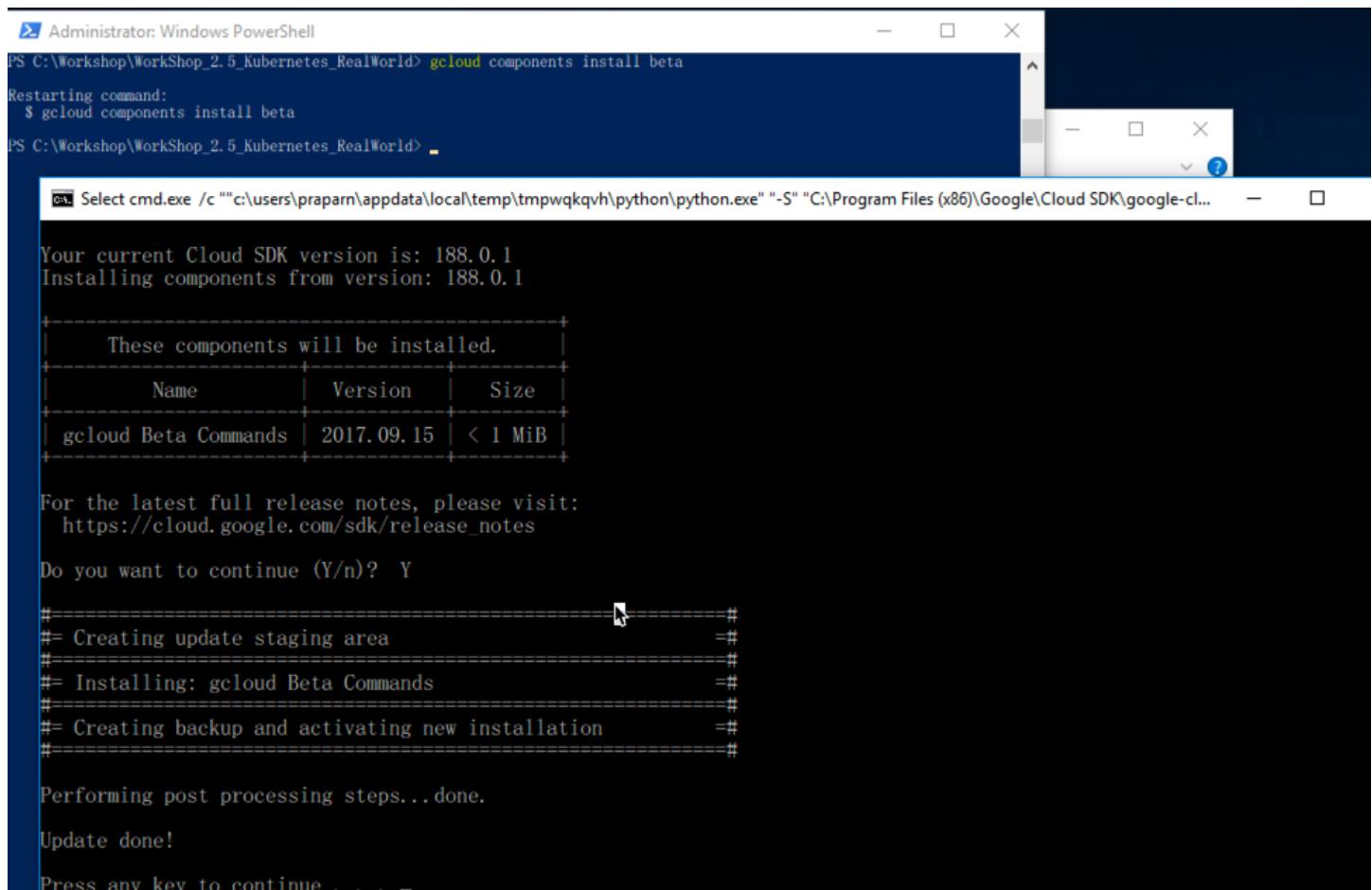
C:\Users\praparn>gcloud compute ssh "kubernetes-ms"  
WARNING: The PuTTY PPK SSH key file for gcloud does not exist.  
WARNING: The public SSH key file for gcloud does not exist.  
WARNING: The private SSH key file for gcloud does not exist.  
WARNING: You do not have an SSH key for gcloud.  
WARNING: SSH keygen will be executed to generate a key.  
This tool needs to create the directory [C:\Users\praparn\.ssh] before  
being able to generate SSH keys.  
Do you want to continue (Y/n)? Y  
Updating project ssh metadata.../Up  
Updating project ssh metadata...do  
Waiting for SSH key to propagate.  
The server's host key is not cached  
have no guarantee that the server i  
think it is.  
The server's rsa2 key fingerprint i  
ssh-rsa 2048 0c:02:77:b4:5e:01:8a:  
If you trust this host, enter "y" t  
PuTTY's cache and carry on connecti  
If you want to carry on connecting  
adding the key to the cache, enter  
If you do not trust this host, pres  
connection.  
Store key in cache? (y/n)

praparn@kubernetes-ms: ~  
Using username "praparn".  
Authenticating with public key "DESKTOP-AHF0IBF\praparn@DESKTOP-AHF0IBF"  
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.8.0-16-generic x86\_64)  
\* Documentation: https://help.ubuntu.com  
\* Management: https://landscape.canonical.com  
\* Support: https://ubuntu.com/advantage  
Get cloud support with Ubuntu Advantage Cloud Guest:  
http://www.ubuntu.com/business/services/cloud  
0 packages can be updated.  
0 updates are security updates.  
praparn@kubernetes-ms:~\$

1.1.6 Exist from putty and stop/delete test machine by command

Microsoft Windows [Version 10.0.15063]  
(c) 2017 Microsoft Corporation. All rights reserved.  
C:\Users\praparn>gcloud compute ssh kubernetes-ms  
C:\Users\praparn>gcloud compute instances stop kubernetes-ms -q  
Stopping instance(s) kubernetes-ms...done.  
Updated [https://www.googleapis.com/compute/v1/projects/kubernetesproject-170714/zones/asia-east1-a/instances/kubernetes-ms].  
C:\Users\praparn>gcloud compute instances delete kubernetes-ms -q  
Deleted [https://www.googleapis.com/compute/v1/projects/kubernetesproject-170714/zones/asia-east1-a/instances/kubernetes-ms].  
C:\Users\praparn>

1.1.7      Install additional component by command: gcloud components install beta



Administrator: Windows PowerShell  
PS C:\Workshop\WorkShop\_2.5\_Kubernetes\_RealWorld> gcloud components install beta  
Restarting command:  
\$ gcloud components install beta  
PS C:\Workshop\WorkShop\_2.5\_Kubernetes\_RealWorld>

```
cmd Select cmd.exe /c ""c:\users\praparn\appdata\local\temp\tmpwqkqv\python\python.exe" "-S" "C:\Program Files (x86)\Google\Cloud SDK\google-cl..."
```

Your current Cloud SDK version is: 188.0.1  
Installing components from version: 188.0.1

Name	Version	Size
gcloud Beta Commands	2017.09.15	< 1 MiB

For the latest full release notes, please visit:  
[https://cloud.google.com/sdk/release\\_notes](https://cloud.google.com/sdk/release_notes)

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

```
#=====#=  
#= Creating update staging area =#  
#= Installing: gcloud Beta Commands =#  
#= Creating backup and activating new installation =#  
#======#=
```

Performing post processing steps...done.

Update done!

Press any key to continue . . .

## 1.2 For MAC OS X

1.2.1 Run command: curl <https://sdk.cloud.google.com> | bash and following step

```
praparn — install_google_cloud_sdk.bash — 123×29
Last login: Tue Feb 13 20:49:37 on console
mac-test-gcloud:~ praparn$ curl https://sdk.cloud.google.com | bash
% Total    % Received % Xferd  Average Speed   Time   Time  Current
          Dload  Upload Total Spent   Left Speed
100  443     0  443     0      908   0 --:--:-- --:--:--:--:--:-- 909
Downloading Google Cloud SDK install script: https://dl.google.com/dl/cloudsdk/channels/rapid/install_google_cloud_sdk.bash
#####
Running install script from: /var/folders/51/cyp2x0ln45q5c7_bdx0m7khm000gn/T/tmp.XXXXXXXXXX.t1z2oh8d/install_google_cloud_
sdk.bash
which curl
curl -# -f https://dl.google.com/dl/cloudsdk/channels/rapid/google-cloud-sdk.tar.gz
#####
Installation directory (this will create a google-cloud-sdk subdirectory) (/Users/praparn):/Users/praparn
```

```
praparn — Python -S ~/google-cloud-sdk/bin/bootstrapping/install.py — 123×29
x google-cloud-sdk/platform/ext-runtime/ruby/lib/gae_ext_runtime/
x google-cloud-sdk/platform/ext-runtime/ruby/lib/gae_ext_runtime/__init__.py
x google-cloud-sdk/platform/ext-runtime/ruby/lib/gae_ext_runtime/comm.py
x google-cloud-sdk/platform/ext-runtime/ruby/runtime.yaml
x google-cloud-sdk/platform/ext-runtime/ruby/templates/
x google-cloud-sdk/platform/ext-runtime/ruby/templates/Dockerfile.template
x google-cloud-sdk/platform/ext-runtime/ruby/templates/dockerignore.template
x google-cloud-sdk/platform/ext-runtime/ruby/test/
x google-cloud-sdk/platform/ext-runtime/ruby/test/runtime_test.py
x google-cloud-sdk/VERSION
x google-cloud-sdk/.install/
x google-cloud-sdk/.install/gcloud-deps.snapshot.json
x google-cloud-sdk/.install/gcloud-deps.manifest
x google-cloud-sdk/.install/core.snapshot.json
x google-cloud-sdk/.install/core.manifest
x google-cloud-sdk/.install/.download/

/Users/praparn/google-cloud-sdk/install.sh
Welcome to the Google Cloud SDK!

To help improve the quality of this product, we collect anonymized usage data
and anonymized stacktraces when crashes are encountered; additional information
is available at <https://cloud.google.com/sdk/usage-statistics>. You may choose
to opt out of this collection now (by choosing 'N' at the below prompt), or at
any time in the future by running the following command:

gcloud config set disable_usage_reporting true

Do you want to help improve the Google Cloud SDK (Y/n)? n
```

```
praparn — Python -S ~/google-cloud-sdk/bin/bootstrapping/install.py — 123x29

Your current Cloud SDK version is: 188.0.1
Installing components from version: 188.0.1

These components will be installed.



| Name                                                | Version    | Size    |
|-----------------------------------------------------|------------|---------|
| BigQuery Command Line Tool                          | 2.0.28     | < 1 MiB |
| BigQuery Command Line Tool (Platform Specific)      | 2.0.26     | < 1 MiB |
| Cloud SDK Core Libraries (Platform Specific)        | 2017.09.15 | < 1 MiB |
| Cloud Storage Command Line Tool                     | 4.28       | 3.3 MiB |
| Cloud Storage Command Line Tool (Platform Specific) | 4.27       | < 1 MiB |
| Default set of gcloud commands                      |            |         |
| gcloud cli dependencies                             | 2017.10.20 | 1.4 MiB |



For the latest full release notes, please visit:
https://cloud.google.com/sdk/release\_notes

[- Creating update staging area
- Installing: BigQuery Command Line Tool
- Installing: BigQuery Command Line Tool (Platform Spec... -]
```

```
praparn — -bash — 123x29

[- Creating backup and activating new installation -]

Performing post processing steps...done.

Update done!

Modify profile to update your $PATH and enable shell command
completion?

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

The Google Cloud SDK installer will now prompt you to update an rc
file to bring the Google Cloud CLIs into your environment.

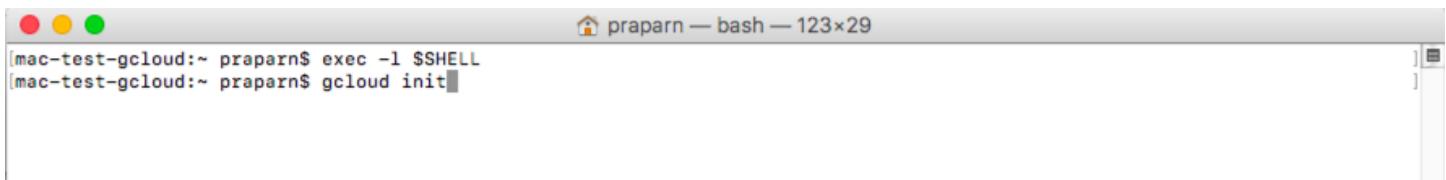
Enter a path to an rc file to update, or leave blank to use
[/Users/praparn/.bash_profile]:
[/Users/praparn/.bash_profile] has been updated.

==> Start a new shell for the changes to take effect.

For more information on how to get started, please visit:
https://cloud.google.com/sdk/docs/quickstarts

[mac-test-gcloud:~ praparn$ ]
```

1.2.2     Restart shell by command: exec -l \$SHELL and gcloud init



A screenshot of a Mac OS X terminal window titled "paparn — bash — 123x29". The window shows two commands entered: "exec -l \$SHELL" and "gcloud init". The "gcloud init" command is still running, indicated by the red progress bar at the bottom of the terminal.

```
[mac-test-gcloud:~ paparn$ exec -l $SHELL
[mac-test-gcloud:~ paparn$ gcloud init]
```

1.2.3     Login to gcloud following step on screen



A screenshot of a Mac OS X terminal window titled "paparn — Python -S ~/google-cloud-sdk/lib/gcloud.py init — 123x29". The window shows the "gcloud init" command running, which prompts the user to log in. It also shows a warning about a browser error and a URL for account selection.

```
[mac-test-gcloud:~ paparn$ exec -l $SHELL
[mac-test-gcloud:~ paparn$ gcloud init
Welcome! This command will take you through the configuration of gcloud.

Your current configuration has been set to: [default]

You can skip diagnostics next time by using the following flag:
  gcloud init --skip-diagnostics

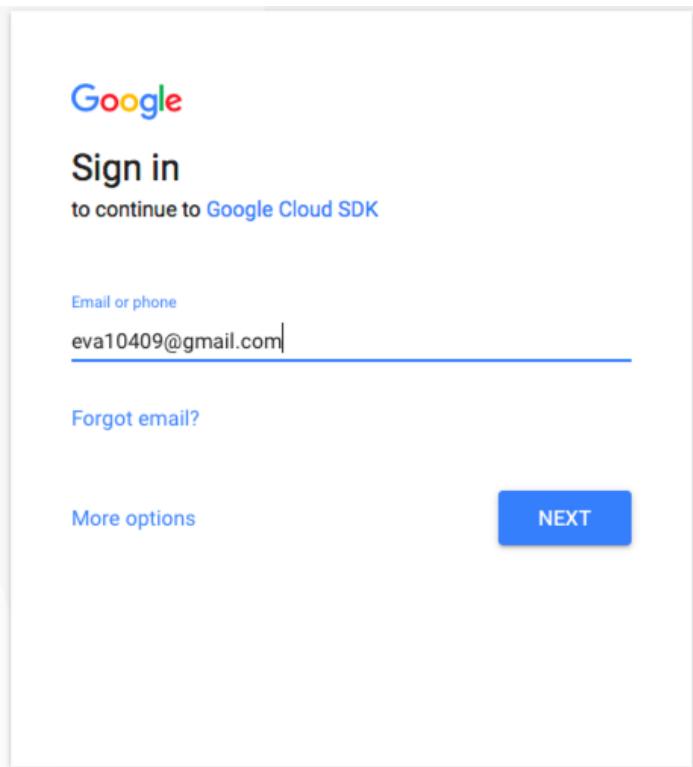
Network diagnostic detects and fixes local network connection issues.
Checking network connection...done.
Reachability Check passed.
Network diagnostic (1/1 checks) passed.

You must log in to continue. Would you like to log in (Y/n)? Y

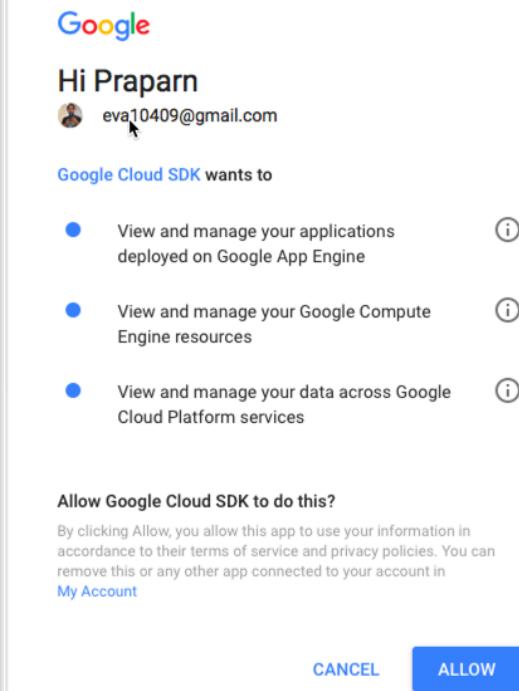
76:84: execution error: Can't get application "Google Chrome". (-1728)
Your browser has been opened to visit:

  https://accounts.google.com/o/oauth2/auth?redirect_uri=http%3A%2Flocalhost%3A8085%2F&prompt=select_account&response_
  type=code&client_id=32555940559.apps.googleusercontent.com&scope=https%3A%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email+h
  ttps%3A%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2Fwww.googleapis.com%2Fauth%2Fappengine.admin+https%3A%
  2F%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&access_type=offline
```

1.2.4 Login via browser to our google account



The screenshot shows the Google Sign-in page. At the top, it says "Sign in to continue to Google Cloud SDK". Below that is a "Email or phone" field containing "eva10409@gmail.com". To the right of the field is a "NEXT" button. On the left, there's a "Forgot email?" link and a "More options" link. The background is white with some light gray shading.



Cloud SDK

You are now authenticated with the Google Cloud SDK!



[SEND FEEDBACK](#)

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- 1.2.5 Back to terminal. Select project that we used to create project that we will operate and select default compute region to "n" for finished

```
praparn — bash — 123x38
https://accounts.google.com/o/oauth2/auth?redirect_uri=http%3A%2Flocalhost%3A8085%2F&prompt=select_account&response_type=code&client_id=32555940559.apps.googleusercontent.com&scope=https%3A%2Fwww.googleapis.com%2Fauth%2Fuserinfo.email+https%3A%2Fwww.googleapis.com%2Fauth%2Fcloud-platform+https%3A%2Fwww.googleapis.com%2Fauth%2Fappengine.admin+https%3A%2Fwww.googleapis.com%2Fauth%2Fcompute+https%3A%2Fwww.googleapis.com%2Fauth%2Faccounts.reauth&access_type=offline

You are logged in as: [eva10409@gmail.com].

Pick cloud project to use:
[1] dockerswarm-174112
[2] kubernetesproject-170714
[3] Create a new project
Please enter numeric choice or text value (must exactly match list item): 2

Your current project has been set to: [kubernetesproject-170714]. 

Do you want to configure a default Compute Region and Zone? (Y/n)? n

Created a default .boto configuration file at [/Users/praparn/.boto]. See this file and
[https://cloud.google.com/storage/docs/gsutil/commands/config] for more
information about configuring Google Cloud Storage.
Your Google Cloud SDK is configured and ready to use!

* Commands that require authentication will use eva10409@gmail.com by default
* Commands will reference project `kubernetesproject-170714` by default
Run `gcloud help config` to learn how to change individual settings

This gcloud configuration is called [default]. You can create additional configurations if you work with multiple accounts
and/or projects.
Run `gcloud topic configurations` to learn more.

Some things to try next:

* Run `gcloud --help` to see the Cloud Platform services you can interact with. And run `gcloud help COMMAND` to get help on any gcloud command.
* Run `gcloud topic -h` to learn about advanced features of the SDK like arg files and output formatting
[mac-test-gcloud:~ praparn$ ]
```

- 1.2.6 Setup project/region/zone by command:

```
gcloud config set project <your project id>
```

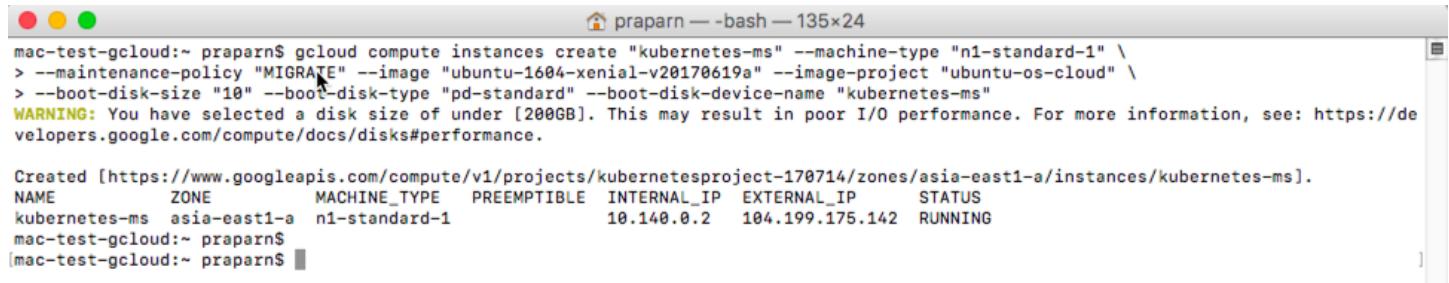
```
gcloud config set compute/region asia-east1
```

```
gcloud config set compute/zone asia-east1-a
```

1.2.7 Install additional component by command: gcloud components install beta

1.2.8 Test create machine by command:

```
gcloud compute instances create "kubernetes-ms" --machine-type "n1-standard-1" \
--maintenance-policy "MIGRATE" --image "ubuntu-1604-xenial-v20170619a" --image-project "ubuntu-os-cloud" \
--boot-disk-size "10" --boot-disk-type "pd-standard" --boot-disk-device-name "kubernetes-ms"
```



```
mac-test-gcloud:~ praparn$ gcloud compute instances create "kubernetes-ms" --machine-type "n1-standard-1" \
> --maintenance-policy "MIGRATE" --image "ubuntu-1604-xenial-v20170619a" --image-project "ubuntu-os-cloud" \
> --boot-disk-size "10" --boot-disk-type "pd-standard" --boot-disk-device-name "kubernetes-ms"
WARNING: You have selected a disk size of under [200GB]. This may result in poor I/O performance. For more information, see: https://developers.google.com/compute/docs/disks#performance.

Created [https://www.googleapis.com/compute/v1/projects/kubernetesproject-170714/zones/asia-east1-a/instances/kubernetes-ms].
NAME          ZONE      MACHINE_TYPE  PREEMPTIBLE  INTERNAL_IP  EXTERNAL_IP   STATUS
kubernetes-ms  asia-east1-a  n1-standard-1           10.140.0.2    104.199.175.142  RUNNING
mac-test-gcloud:~ praparn$
```

### 1.2.9 Test ssh to target machine by command: gcloud compute ssh "kubernetes-ms"

```
praparn — Python -S ~/google-cloud-sdk/lib/gcloud.py compute ssh kubernetes-ms — 135x14
[mac-test-gcloud:~ praparn$ gcloud compute ssh "kubernetes-ms"
WARNING: The public SSH key file for gcloud does not exist.
WARNING: The private SSH key file for gcloud does not exist.
WARNING: You do not have an SSH key for gcloud.
WARNING: SSH keygen will be executed to generate a key.
This tool needs to create the directory [/Users/praparn/.ssh] before
being able to generate SSH keys.

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

### 1.2.10 Generate key for ssh by specific passphrase for public/private rsa key pair

```
praparn — Python -S ~/google-cloud-sdk/lib/gcloud.py compute ssh kubernetes-ms — 135x30
[mac-test-gcloud:~ praparn$ gcloud compute ssh "kubernetes-ms"
WARNING: The public SSH key file for gcloud does not exist.
WARNING: The private SSH key file for gcloud does not exist.
WARNING: You do not have an SSH key for gcloud.
WARNING: SSH keygen will be executed to generate a key.
This tool needs to create the directory [/Users/praparn/.ssh] before
being able to generate SSH keys.

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

Generating public/private rsa key pair.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /Users/praparn/.ssh/google_compute_engine.
Your public key has been saved in /Users/praparn/.ssh/google_compute_engine.pub.
The key fingerprint is:
SHA256:16+/Fc7RmBr7gMTa/jG2vI+TSIMdFLCY0Jux2ER2HCK praparn@mac-test-gcloud.shared
The key's randomart image is:
+---[RSA 2048]---+
|   o.0.... |
|   oEooo .. |
|   =.o .. |
| + *   ... + |
| . =   So... = . |
| .+=o * o |
| ..oo0.+ |
| ...+o0 |
| oo0=o |
+---[SHA256]---+
Updating project ssh metadata...-
```

### 1.2.11 Enter passphrase for key '/Users/xxxx/.ssh/google\_compute\_engine' (Same passphrase) and continue

```
Updating project ssh metadata...-Updated [https://www.googleapis.com/compute/v1/projects/kubernetesproject-170714].
Updating project ssh metadata...done.
Waiting for SSH key to propagate.
Warning: Permanently added 'compute.7422813588427851994' (ECDSA) to the list of known hosts.
Enter passphrase for key '/Users/praparn/.ssh/google_compute_engine':
Enter passphrase for key '/Users/praparn/.ssh/google_compute_engine':
Welcome to Ubuntu 16.04.2 LTS (GNU/Linux 4.8.0-56-generic x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/advantage

Get cloud support with Ubuntu Advantage Cloud Guest:
 http://www.ubuntu.com/business/services/cloud

0 packages can be updated.
0 updates are security updates.

praparn@kubernetes-ms:~$
```

### 1.2.12 Start destroy test machine by exit and stop by command

```
gcloud compute instances stop kubernetes-ms -q
```

```
gcloud compute instances delete kubernetes-ms -q
```

The screenshot shows a terminal window titled "praparn — praparn@kubernetes-ms: ~ — bash — 135x30". The session starts with a message about Ubuntu Advantage Cloud Guest. It then shows the output of running "gcloud compute instances stop kubernetes-ms -q" and "gcloud compute instances delete kubernetes-ms -q". Both commands fail with errors related to invalid command line arguments. The user then exits the session.

```
Get cloud support with Ubuntu Advantage Cloud Guest:  
http://www.ubuntu.com/business/services/cloud  
  
0 packages can be updated.  
0 updates are security updates.  
  
[praparn@kubernetes-ms:~$ exit  
logout  
Connection to 104.199.175.142 closed.  
[mac-test-gcloud:~ praparn$ gcloud compute instances stop kubernetes-ms -q  
Stopping instance(s) kubernetes-ms...done.  
Updated [https://www.googleapis.com/compute/v1/projects/kubernetesproject-170714/zones/asia-east1-a/instances/kubernetes-ms].  
[mac-test-gcloud:~ praparn$ gcloud compute instances delete kubernetes-ms -q  
ERROR: (gcloud.compute.instances.delete) Failed to read command line argument [-q] because it does not appear to be valid 7-bit ASCII.  
  
gcloud compute instances delete kubernetes-ms -q  
                                ^ invalid character  
[mac-test-gcloud:~ praparn$ gcloud compute instances delete kubernetes-ms  
The following instances will be deleted. Any attached disks configured  
to be auto-deleted will be deleted unless they are attached to any  
other instances or the '--keep-disks' flag is given and specifies them  
for keeping. Deleting a disk is irreversible and any data on the disk  
will be lost.  
- [kubernetes-ms] in [asia-east1-a]  
  
Do you want to continue (Y/n)? Y  
  
Deleted [https://www.googleapis.com/compute/v1/projects/kubernetesproject-170714/zones/asia-east1-a/instances/kubernetes-ms].  
[mac-test-gcloud:~ praparn$ ]
```

# Generate Key/Import key (Option)

Following Gcloud Instruction for generate and import SSH Keys to GCloud

<https://cloud.google.com/compute/docs/instances/adding-removing-ssh-keys>

The screenshot shows the Google Cloud Platform Documentation page for "Adding and Removing SSH Keys". The page is part of the Compute Engine documentation. On the left, there's a sidebar with links for Compute Engine Product Overview, Documentation, Quickstarts (All Quickstarts, Using a Linux VM, Using a Windows VM), and How-to Guides (All How-to Guides, Creating VM Instances, Adding Storage, Creating and Managing Custom Images, Managing Your Instances, Stopping or Deleting an Instance, Resetting or Restarting an Instance, Creating Disk Snapshots, Moving an Instance Between Zones). The main content area has a breadcrumb navigation (Compute Engine > Documentation) and a rating section with five stars and the text "ส่งความคิดเห็น". The main title is "Adding and Removing SSH Keys". Below the title, a note states: "This guide shows you how to use the `gcloud` tool or API methods to add or remove project-wide SSH keys or instance-only SSH keys. You can use the `gcloud` tool or the API methods to automate SSH key management across the instances in your project rather than letting Compute Engine manage your keys for you. Users with these SSH keys are administrators on your instances that can run commands with `sudo`. By default, SSH access to instances as the `root` user is disabled even if you specify an SSH key in project or instance metadata for `root`." A blue callout box contains a note: "Note: Setting the `sshKeys` metadata value on the instance metadata instead of the project metadata is deprecated. Compute Engine will stop supporting this metadata value in March 2017. Set the `ssh-keys` instance metadata value to add ssh keys for users on individual instances instead." Another yellow callout box contains a caution: "Caution: Using the `gcloud` tool or the API to manage SSH keys on Compute Engine is recommended only for advanced users. See [risks of manual key management](#)."

Following Gcloud Instruction for generate and import SSH Keys to GCloud

\*Remark: After generate key with format finished. You must use gcloud for insert sshKeys authentication with Public key to Google Cloud

Add or remove project-wide public keys using the [gcloud tool](#).

1. Obtain your existing project-wide `sshKeys` metadata value for your instance.

```
gcloud compute project-info describe

...
metadata:
  fingerprint: Rq1XCvmRVik=
  items:
  - key: sshKeys
    value: [USERNAME]:ssh-rsa [EXISTING_KEY_VALUE_1] [USERNAME]\n[USERNAME]:ssh-rsa [EXISTING_KEY_VALUE_2]
  ...
  ...
```

where:

- `[USERNAME]` is the username for your existing keys.
- `[EXISTING_KEY_VALUE_1]` and `[EXISTING_KEY_VALUE_2]` are public key values that are already applied to your project.

2. Merge your existing keys with any new keys that you are adding, and leave out any keys that you want to delete. For this example, the file contains a new `[KEY_VALUE]` followed by one of the existing key values that you obtained in the previous step. The `[EXISTING_KEY_VALUE_1]` is left out, and is removed from the instance in the next step.

```
[USERNAME]:ssh-rsa [KEY_VALUE] [USERNAME]
[USERNAME]:ssh-rsa [EXISTING_KEY_VALUE_2] [USERNAME]
```

where:

- `[USERNAME]` is the username for your existing keys.
- `[KEY_VALUE]` is the new key value that you are adding to the project.
- `[EXISTING_KEY_VALUE_1]` is a public key values that is already applied to your project, but you need to remove it.
- `[EXISTING_KEY_VALUE_2]` is a public key values that is already applied to your project and you want to keep.

3. Use the `compute project-info add-metadata` command to set the project-wide `sshKeys` value. For this example, include the `--metadata-from-file` flag and specify the path to your file on your local client.

```
gcloud compute project-info add-metadata
--metadata-from-file sshKeys=[KEY_FILE_NAME].pub
```

where `[KEY_FILE_NAME]` is the name of your public key file.