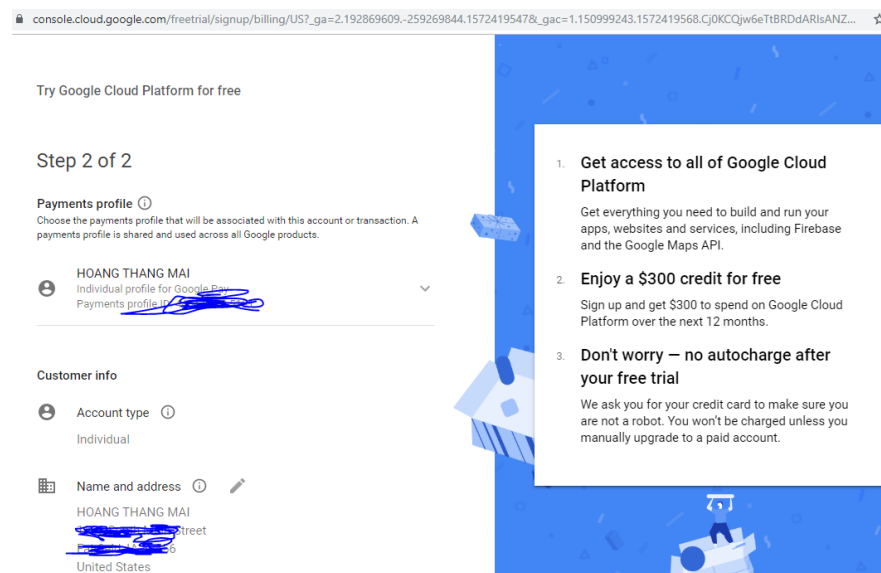


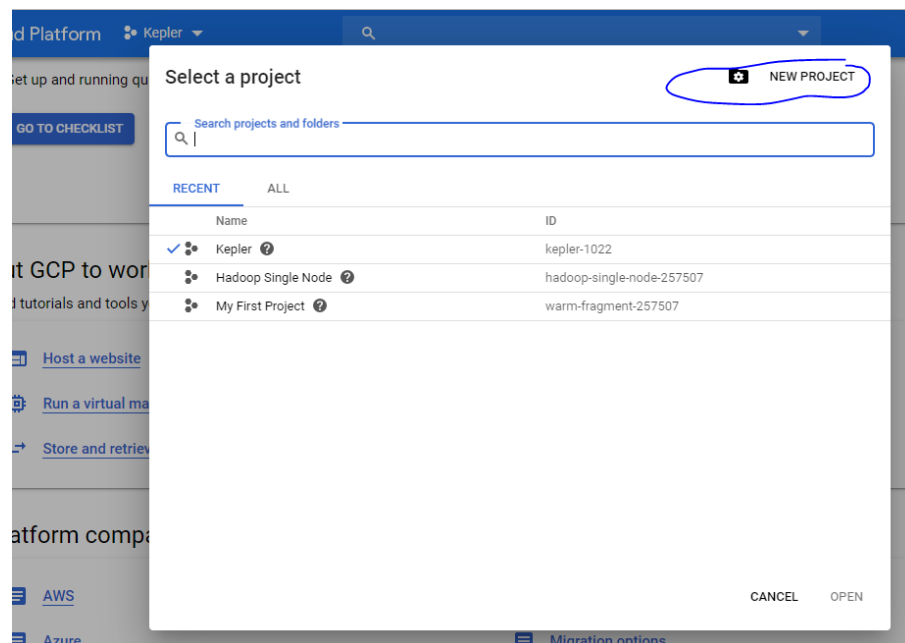
Set Up a Single Node Cluster using Google Cloud Instance

Step 1: Access into <https://cloud.google.com> to register account

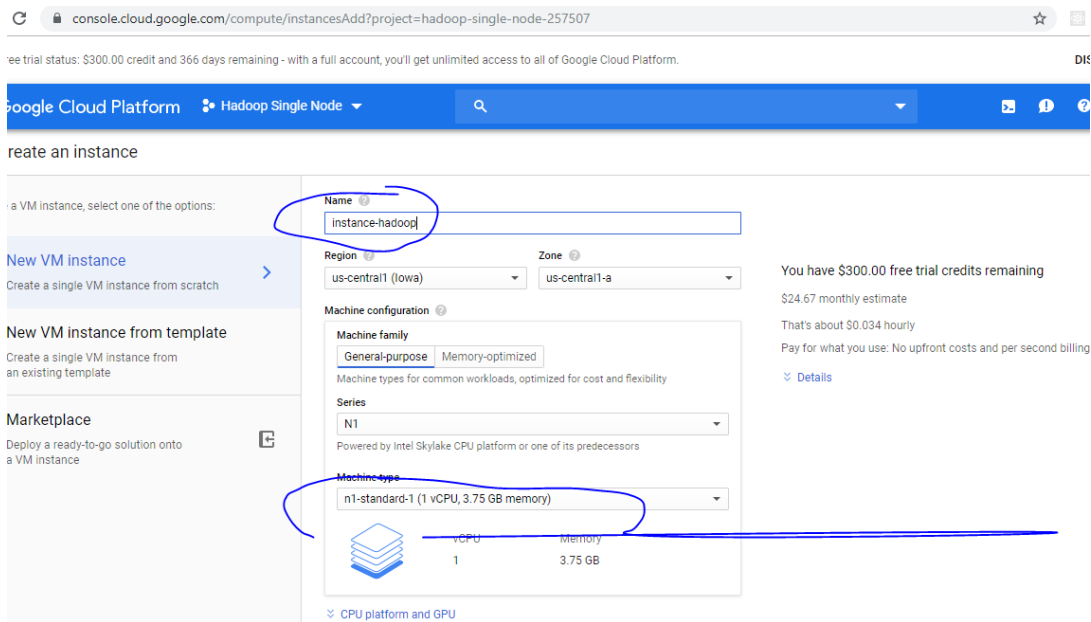
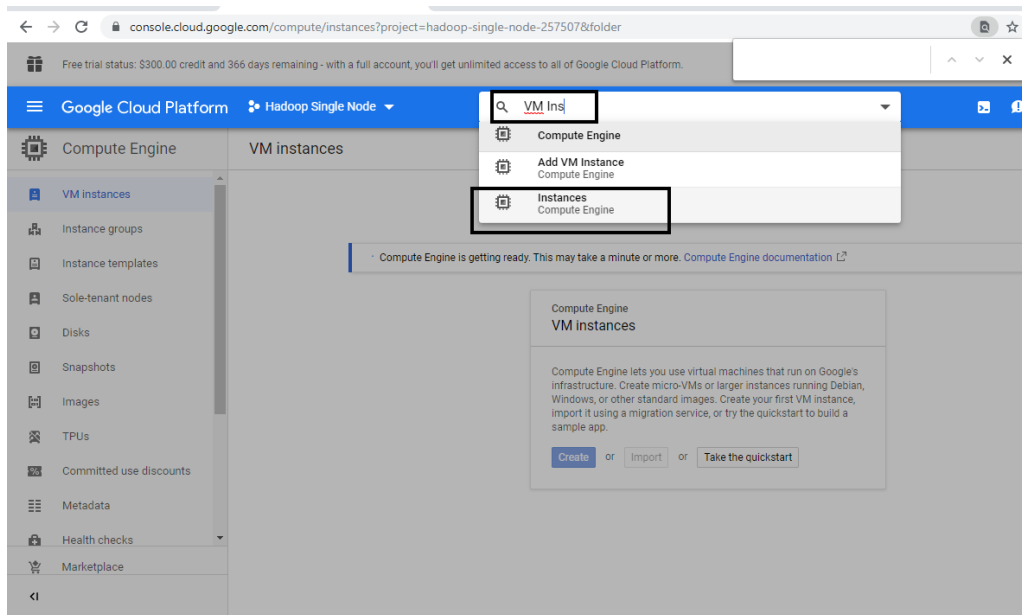
You will get \$300 credit for 1 year



Step 1: Create a new project



Step 3: Init an instance



Set Up a Single Node Cluster using Google Cloud Instance

→ ↻ console.cloud.google.com/compute/instancesAdd?project=hadoop-single-node-257507#PRECONFIGURED_IMAGE-debian-9-stretch-v20191014

Free trial status: \$300.00 credit and 366 days remaining - with a full account, you'll get unlimited access to all of Google Cloud Platform.

Google Cloud Platform Hadoop Single Node

Create an instance

1 3.75 GB

CPU platform and GPU

Container

☐ Deploy a container image to this VM instance. [Learn more](#)

Boot disk

New 20 GB standard persistent disk

Ubuntu 16.04 LTS

Change

Identity and API access

Service account

Compute Engine default service account

Access scopes

☒ Allow default access

☐ Allow full access to all Cloud APIs

☐ Set access for each API

Firewall

Add tags and firewall rules to allow specific network traffic from the Internet

☐ Allow HTTP traffic

☐ Allow HTTPS traffic

Recommend 20Gb hard-disk because we will have to download cloudera 4.7Gb then extract.

→ ↻ console.cloud.google.com/compute/instancesAdd?project=hadoop-single-node-257507&folder#PRECONFIGURED_IMAGE-debian-9-stretch-v20191014

Free trial status: \$300.00 credit and 366 days remaining - with a full account, you'll get unlimited access to all of Google Cloud Platform.

Google Cloud Platform

Create an instance

Boot disk

Select an image or snapshot to create a boot disk; or attach an existing disk

OS images Application images Custom images Snapshots Existing disks

amd64-usr published on 2019-10-23

☐ CoreOS beta 2275.2.0

amd64-usr published on 2019-10-16

☐ CoreOS stable 2247.5.0

amd64-usr published on 2019-10-16

☐ Ubuntu 14.04 LTS

amd64-trusty image built on 2019-05-14

☒ Ubuntu 16.04 LTS

amd64-xenial image built on 2019-10-24

☐ Ubuntu 18.04 LTS

amd64-bionic image built on 2019-10-21

☐ Ubuntu 19.04

amd64-disco image built on 2019-10-20

☐ Ubuntu 19.10

amd64-eoan image built on 2019-10-22

☐ Ubuntu 16.04 LTS Minimal

amd64-xenial minimal image built on 2019-10-24

☐ Ubuntu 18.04 LTS Minimal

amd64-bionic minimal image built on 2019-10-24

☐ Ubuntu 19.04 Minimal

amd64-disco minimal image built on 2019-10-19

☐ Ubuntu 19.10 Minimal

amd64-eoan minimal image built on 2019-10-22

Can't find what you're looking for? Explore hundreds of VM solutions in [Marketplace](#)

Boot disk type

Standard persistent disk

Size (GB)

10

Select Cancel

Set Up a Single Node Cluster using Google Cloud Instance

→ ↻ console.cloud.google.com/compute/instancesAdd?project=hadoop-single-node-257507&folder#PRECONFIGURED_IMAGE-debian-9-stretch-v20191014

Free trial status: \$300.00 credit and 366 days remaining - with a full account, you'll get unlimited access to all of Google Cloud Platform.

Google Cloud Platform Hadoop Single Node

Create an instance

Identity and API access ?

Service account ?
Compute Engine default service account

Access scopes ?

- ☒ Allow default access
- ☐ Allow full access to all Cloud APIs
- ☐ Set access for each API

Firewall ?

Add tags and firewall rules to allow specific network traffic from the Internet

- ☒ Allow HTTP traffic
- ☒ Allow HTTPS traffic

Management, security, disks, networking, sole tenancy

Your free trial credit will be used for this VM instance. [GCP Free Tier](#)

Create Cancel

Equivalent REST or command line

Step 4: SSH to the instance

← → ↻ console.cloud.google.com/compute/instances?project=hadoop-single-node-257507&folder&instancessize=50

Free trial status: \$300.00 credit and 366 days remaining - with a full account, you'll get unlimited access to all of Google Cloud Platform.

Google Cloud Platform Hadoop Single Node

Compute Engine VM instances

VM instances

Filter VM instances Columns

<input type="checkbox"/>	Name ^	Zone	Recommendation	In use by	Internal IP	External IP	Connect
<input checked="" type="checkbox"/>	instance-1	us-central1-a			10.128.0.2 (nic0)	35.225.132.197	SSH

Set Up a Single Node Cluster using Google Cloud Instance

```
mhthang_it@instance-1: ~ - Google Chrome
ssh.cloud.google.com/projects/hadoop-single-node-257507/zones/us-central1-a/instances/instance-1?authuser=0&hl=en_US&project=...

Connected, host fingerprint: ssh-rsa 0 79:AC:29:CC:8E:7E:02:C4:87:E1:9C:F9:22:79
:71:05:A4:49:57:3E:3A:60:EE:4F:47:4A:77:45:ED:63:31:5B
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.15.0-1047-gcp x86_64)

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

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

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

mhthang_it@instance-1:~$
```

Step 5: get Docker and update

curl -ssl https://get.docker.com/ | sh

```
Connected, host fingerprint: ssh-rsa 0 79:AC:29:CC:8E:7E:02:C4:87:E1:9C:F9:22:79
:71:05:A4:49:57:3E:3A:60:EE:4F:47:4A:77:45:ED:63:31:5B
Welcome to Ubuntu 16.04.6 LTS (GNU/Linux 4.15.0-1047-gcp x86_64)

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

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

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

mhthang_it@instance-1:~$ curl -ssl https://get.docker.com/ | sh
```

sudo apt-get update

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

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

mhthang_it@instance-1:~$ curl -ssl https://get.docker.com/ | sh
mhthang_it@instance-1:~$ sudo apt-get update
Hit:1 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial InRelease
Get:2 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-updates InRelease [109 kB]
Get:3 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-backports InRelease [107 kB]
Get:4 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial/universe amd64 Packages [7,532 kB]
Get:5 http://archive.canonical.com/ubuntu xenial InRelease [11.5 kB]
Get:6 http://security.ubuntu.com/ubuntu xenial-security InRelease [109 kB]
Get:7 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial/universe Translation-en [4,354 kB]
Get:8 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial/multiverse amd64 Packages [144 kB]
Get:9 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial/multiverse Translation-en [106 kB]
Get:10 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-updates/main amd64 Packages [1,055 kB]
Get:11 http://archive.canonical.com/ubuntu xenial/partner amd64 Packages [3,144 B]
Get:12 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-updates/universe amd64 Packages [768 kB]
Get:13 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-updates/universe Translation-en [322 kB]
Get:14 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-updates/multiverse amd64 Packages [16.9 kB]
Get:15 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-updates/multiverse Translation-en [8,468 B]
Get:16 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-backports/main amd64 Packages [7,280 B]
Get:17 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-backports/main Translation-en [4,456 B]
Get:18 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-backports/universe amd64 Packages [8,064 B]
Get:19 http://us-central1.gce.archive.ubuntu.com/ubuntu xenial-backports/universe Translation-en [4,328 B]
Get:20 http://archive.canonical.com/ubuntu xenial/partner Translation-en [1,620 B]
Get:21 http://security.ubuntu.com/ubuntu xenial-security/main amd64 Packages [770 kB]
Get:22 http://security.ubuntu.com/ubuntu xenial-security/universe amd64 Packages [463 kB]
Get:23 http://security.ubuntu.com/ubuntu xenial-security/universe Translation-en [190 kB]
Get:24 http://security.ubuntu.com/ubuntu xenial-security/multiverse amd64 Packages [5,728 B]
Get:25 http://security.ubuntu.com/ubuntu xenial-security/multiverse Translation-en [2,708 B]
Fetched 16.1 MB in 3s (4,826 KB/s)
Reading package lists... Done
mhthang_it@instance-1:~$
```

Set Up a Single Node Cluster using Google Cloud Instance

Check version of docker

```
Experimental: false
Server: Docker Engine - Community
Engine:
  Version: 19.03.4
  API version: 1.40 (minimum version 1.12)
  Go version: go1.12.10
  Git commit: 9013bf583a
  Built: Fri Oct 18 15:52:23 2019
  OS/Arch: linux/amd64
  Experimental: false
containerd:
  Version: 1.2.10
  GitCommit: b34a5c9af56e510852c35414db4c1f4fa6172339
runc:
  Version: 1.0.0-rc8+dev
  GitCommit: 3e425f80a8c931f88e6d94a8c831b9d5aa481657
docker-init:
  Version: 0.18.0
  GitCommit: fec3683
If you would like to use Docker as a non-root user, you should now consider
adding your user to the "docker" group with something like:

  sudo usermod -aG docker mhthang_it

Remember that you will have to log out and back in for this to take effect!

WARNING: Adding a user to the "docker" group will grant the ability to run
containers which can be used to obtain root privileges on the
docker host.
Refer to https://docs.docker.com/engine/security/security/#docker-daemon-attack-surface
for more information.
mhthang_it@instance-hadoop:~$ sudo apt-get update
Hit:1 http://us-central1-gce.archive.ubuntu.com/ubuntu xenial InRelease
Hit:2 http://us-central1-gce.archive.ubuntu.com/ubuntu xenial-updates InRelease
Hit:3 http://us-central1-gce.archive.ubuntu.com/ubuntu xenial-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu xenial-security InRelease
Hit:5 https://download.docker.com/linux/ubuntu xenial InRelease
Hit:6 http://archive.canonical.com/ubuntu xenial InRelease
Reading package lists... Done
mhthang_it@instance-hadoop:~$ docker -v
Docker version 19.03.4, build 9013bf583a
mhthang_it@instance-hadoop:~$
```

Step 6: Get the Cloudera Quickstart Image

sudo wget https://downloads.cloudera.com/demo_vm/docker/cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz

```
mhthang_it@instance-1:~$ sudo wget https://downloads.cloudera.com/demo_vm/docker/cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz
--2019-10-30 07:36:38-- https://downloads.cloudera.com/demo_vm/docker/cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz
Resolving downloads.cloudera.com (downloads.cloudera.com)... 99.84.168.18, 99.84.168.10, 99.84.168.90, ...
Connecting to downloads.cloudera.com (downloads.cloudera.com)|99.84.168.18|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 5096138910 (4.7G) [application/x-gzip]
Saving to: 'cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz'

eta-docker.tar.gz          59%[=====>]          2.81G  34.8MB/s  eta 52s
```

Step 7: Extract the cloudera quickstart tar file

tar xzf cloudera-quickstart-vm-*-docker.tar.gz

```
mhthang_it@instance-hadoop:~$ sudo apt-get update
Hit:1 http://us-central1-gce.archive.ubuntu.com/ubuntu xenial InRelease
Hit:2 http://us-central1-gce.archive.ubuntu.com/ubuntu xenial-updates InRelease
Hit:3 http://us-central1-gce.archive.ubuntu.com/ubuntu xenial-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu xenial-security InRelease
Hit:5 https://download.docker.com/linux/ubuntu xenial InRelease
Hit:6 http://archive.canonical.com/ubuntu xenial InRelease
Reading package lists... Done
mhthang_it@instance-hadoop:~$ docker -v
Docker version 19.03.4, build 9013bf583a
mhthang_it@instance-hadoop:~$ sudo wget https://downloads.cloudera.com/demo_vm/docker/cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz
--2019-10-30 08:01:38-- https://downloads.cloudera.com/demo_vm/docker/cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz
Resolving downloads.cloudera.com (downloads.cloudera.com)... 99.84.254.28, 99.84.254.82, 99.84.254.128, ...
Connecting to downloads.cloudera.com (downloads.cloudera.com)|99.84.254.28|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 5096138910 (4.7G) [application/x-gzip]
Saving to: 'cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz'

cloudera-quickstart-vm-5.13. 100%[=====>]          4.75G  48.9MB/s  in 85s

2019-10-30 08:02:38 (57.5 MB/s) - 'cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz' saved [5096138910/5096138910]

mhthang_it@instance-hadoop:~$ tar xzf cloudera-quickstart-vm-*-docker.tar.gz
```

```
2019-10-30 08:30:06 (37.1 MB/s) - 'cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz' saved [5096138910/5096138910]
mhthang_it@instance-hadoop:~$ tar xzf cloudera-quickstart-vm-*-docker.tar.gz
mhthang_it@instance-hadoop:~$ ls
cloudera-quickstart-vm-5.13.0-0-beta-docker  cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz
mhthang_it@instance-hadoop:~$
```

Step 8: Import Cloudera quickstart docker image

cd cloudera-quickstart-vm-5.13.0-0-beta-docker

sudo docker import cloudera-quickstart-vm-5.13.0-0-beta-docker.tar

Remove downloaded file if short of disk space

```
cloudera-quickstart-vm-5.13. 100%[=====] 4.75G 8.57MB/s in 2m 11s
2019-10-30 08:30:06 (37.1 MB/s) - 'cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz' saved [5096138910/5096138910]
mhthang_it@instance-hadoop:~$ tar xzf cloudera-quickstart-vm-*-docker.tar.gz
mhthang_it@instance-hadoop:~$ ls
cloudera-quickstart-vm-5.13.0-0-beta-docker  cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz
mhthang_it@instance-hadoop:~$ cd cloudera-quickstart-vm-5.13.0-0-beta-docker/
mhthang_it@instance-hadoop:~/cloudera-quickstart-vm-5.13.0-0-beta-docker$ sudo docker import cloudera-quickstart-vm-5.13.0-0-beta-docker.tar
Error response from daemon: Error processing tar file(exit status 1): write /var/lib/hadoop-hdfs/cache/hdfs/dfs/data/current/BP-1388946040-10.0.0.8-1508802350597/current/finalized/subdir0/subdir2/blk_1073742404: no space left on device
mhthang_it@instance-hadoop:~/cloudera-quickstart-vm-5.13.0-0-beta-docker$ ls
cloudera-quickstart-vm-5.13.0-0-beta-docker.tar
mhthang_it@instance-hadoop:~/cloudera-quickstart-vm-5.13.0-0-beta-docker$ cd
mhthang_it@instance-hadoop:~$ sudo rm cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz
mhthang_it@instance-hadoop:~$ cd cloudera-quickstart-vm-5.13.0-0-beta-docker/
mhthang_it@instance-hadoop:~/cloudera-quickstart-vm-5.13.0-0-beta-docker$ sudo docker import cloudera-quickstart-vm-5.13.0-0-beta-docker.tar
```

Step 9: Check the container image ID

sudo docker images

```
mhthang_it@instance-hadoop:~/cloudera-quickstart-vm-5.13.0-0-beta-docker$ ls
cloudera-quickstart-vm-5.13.0-0-beta-docker.tar
mhthang_it@instance-hadoop:~/cloudera-quickstart-vm-5.13.0-0-beta-docker$ cd
mhthang_it@instance-hadoop:~$ sudo rm cloudera-quickstart-vm-5.13.0-0-beta-docker.tar.gz
mhthang_it@instance-hadoop:~$ cd cloudera-quickstart-vm-5.13.0-0-beta-docker/
mhthang_it@instance-hadoop:~/cloudera-quickstart-vm-5.13.0-0-beta-docker$ sudo docker import cloudera-quickstart-vm-5.13.0-0-beta-docker.tar
sha256:e144772eb1eace261b1c96fd18054b101e79bcd19d0eaa589522fc0a822cf778
mhthang_it@instance-hadoop:~/cloudera-quickstart-vm-5.13.0-0-beta-docker$ cd
mhthang_it@instance-hadoop:~$ sudo docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
<none>              <none>             e144772eb1ea       About a minute ago  7GB
mhthang_it@instance-hadoop:~$
```

Step 10: Step Run docker image

sudo docker run --hostname=quickstart.cloudera --privileged=true -t -i -p 8777:8888 -p 7190:7180 -p 90:80 e144772eb1ea /usr/bin/docker-quickstart

Now, we are ready to run Hadoop, example with wordcount map reduce. Step to create and export Hadoop project, ref to Set Up a Single Node Cluster using VM or Docker document.

Step 11: Create folder

```
[root@quickstart ~]# hadoop fs -mkdir /user/cloudera/wordcount /user/cloudera/wordcount/input
```

```
[root@quickstart ~]# hadoop fs -mkdir /user/cloudera/wordcount /user/cloudera/wordcount/input
```

Step 11: Create documents

```
echo "Hadoop is an elephant" > file0
```

```
echo "Hadoop is as yellow as can be" > file1
```

```
echo "Oh what a yellow fellow is Hadoop" > file2
```

```
hadoop fs -put file* /user/cloudera/wordcount/input
```

```
[root@quickstart ~]# echo "Hadoop is an elephant" > file0
[root@quickstart ~]# echo "Hadoop is as yellow as can be" > file1
[root@quickstart ~]# echo "Oh what a yellow fellow is Hadoop" > file2
[root@quickstart ~]# hadoop fs -put file* /user/cloudera/wordcount/input
[root@quickstart ~]#
```

Step 12: Load *.jar file into cloudera

In this step, the wordcount.jar is downloaded from an hyperlink. You can find another way to copy file from your machine into google cloud instance.

```
[root@quickstart ~]# curl -o http://cuidot.vn/data/wordcount.jar
curl: no URL specified!
curl: try 'curl --help' or 'curl --manual' for more information
[root@quickstart ~]# curl -O http://cuidot.vn/data/wordcount.jar
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
101 4282 101 4282    0     0  2629      0  0:00:01  0:00:01 --:--:-- 20198
[root@quickstart ~]# ls
file0 file1 file2 hue.json wordcount.jar
[root@quickstart ~]#
```

Step 13: Run the WordCount application from the JAR file we created on Eclipse, giving the paths to the input and output directories in HDFS.

```
hadoop jar wordcount.jar org.myorg.WordCount /user/cloudera/wordcount/input
/user/cloudera/wordcount/output
```


Set Up a Single Node Cluster using Google Cloud Instance

```
[root@quickstart ~]# curl -o http://cuidot.vn/data/wordcount.jar
curl: no URL specified!
curl: try 'curl --help' or 'curl --manual' for more information
[root@quickstart ~]# curl -O http://cuidot.vn/data/wordcount.jar
% Total    % Received % Xferd  Average Speed   Time    Time     Current
                                 Dload  Upload   Total   Spent    Left     Speed
100 4282  100 4282    0     0  2629      0  0:00:01  0:00:01 --:--:-- 20198
[root@quickstart ~]# ls
file0 file1 file2 hue.json wordcount.jar
[root@quickstart ~]# hadoop jar wordcount.jar WordCount /user/cloudera/wordcount/input /user/cloudera/wordcount/output
19/10/30 09:03:30 INFO client.RMProxy: Connecting to ResourceManager at /0.0.0.0:8032
19/10/30 09:03:31 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with ToolRunner to remedy this.
19/10/30 09:03:31 INFO input.FileInputFormat: Total input paths to process : 3
19/10/30 09:03:31 INFO mapreduce.JobSubmitter: number of splits:3
19/10/30 09:03:32 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1572425408290_0001
19/10/30 09:03:33 INFO impl.YarnClientImpl: Submitted application application_1572425408290_0001
19/10/30 09:03:33 INFO mapreduce.Job: The url to track the job: http://quickstart.cloudera:8088/proxy/application_1572425408290_0001/
19/10/30 09:03:33 INFO mapreduce.Job: Running job: job_1572425408290_0001
```

Result:

```
[root@quickstart ~]# hadoop jar wordcount.jar WordCount /user/cloudera/wordcount/input /user/cloudera/wordcount/output
19/10/30 09:03:30 INFO client.RMProxy: Connecting to ResourceManager at /0.0.0.0:8032
19/10/30 09:03:31 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interface and execute your application with ToolRunner to remedy this.
19/10/30 09:03:31 INFO input.FileInputFormat: Total input paths to process : 3
19/10/30 09:03:31 INFO mapreduce.JobSubmitter: number of splits:3
19/10/30 09:03:32 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1572425408290_0001
19/10/30 09:03:33 INFO impl.YarnClientImpl: Submitted application application_1572425408290_0001
19/10/30 09:03:33 INFO mapreduce.Job: The url to track the job: http://quickstart.cloudera:8088/proxy/application_1572425408290_0001/
19/10/30 09:03:33 INFO mapreduce.Job: Running job: job_1572425408290_0001
19/10/30 09:03:49 INFO mapreduce.Job: Job job_1572425408290_0001 running in uber mode : false
19/10/30 09:03:49 INFO mapreduce.Job: map 0% reduce 0%
19/10/30 09:04:11 INFO mapreduce.Job: map 33% reduce 0%
19/10/30 09:04:12 INFO mapreduce.Job: map 67% reduce 0%
19/10/30 09:04:13 INFO mapreduce.Job: map 100% reduce 0%
19/10/30 09:04:31 INFO mapreduce.Job: map 100% reduce 100%
19/10/30 09:04:32 INFO mapreduce.Job: Job job_1572425408290_0001 completed successfully
19/10/30 09:04:33 INFO mapreduce.Job: Counters: 50
  File System Counters
    FILE: Number of bytes read=200
    FILE: Number of bytes written=574817
    FILE: Number of read operations=0
    FILE: Number of large read operations=0
    FILE: Number of write operations=0
    HDFS: Number of bytes read=482
    HDFS: Number of bytes written=80
    HDFS: Number of read operations=12
    HDFS: Number of large read operations=0
    HDFS: Number of write operations=2
  Job Counters
    Killed map tasks=1
    Launched map tasks=3
    Launched reduce tasks=1
    Data-local map tasks=3
    Total time spent by all maps in occupied slots (ms)=60450
    Total time spent by all reduces in occupied slots (ms)=16932
    Total time spent by all map tasks (ms)=60450
    Total time spent by all reduce tasks (ms)=16932
    Total vcore-milliseconds taken by all map tasks=60450
    Total vcore-milliseconds taken by all reduce tasks=16932
    Total megabyte-milliseconds taken by all map tasks=61908800
    Total megabyte-milliseconds taken by all reduce tasks=17338368
  Map-Reduce Framework
    Map input records=3
    Map output records=18
    Map output bytes=158
    Map output materialized bytes=212
    Input split bytes=396
    Combine input records=0
    Combine output records=0
    Reduce input groups=12
    Reduce shuffle bytes=212
    Reduce input records=18
    Reduce output records=12
    Spilled Records=36
    Shuffled Maps=3
    Failed Shuffles=0
    Merged Map outputs=3
    GC time elapsed (ms)=806
    CPU time spent (ms)=3340
    Physical memory (bytes) snapshot=828334080
    Virtual memory (bytes) snapshot=5230444544
```

Good Luck