-------CDH ON GOogle ClOud

---Google Cloud
1.New Project- Cloudera Director(cloudera-director-182505)
2.CLick root tab and navigate to Api & Services
-Credentials->create credentials->service account key->select account->new service account
-Service account name->Test
-Role->project->owner
-key type-Json

Click CREATE (new private key is downloaded in json format)

2.Click on root & under root click ComputeEngine->create VM Instances
 -Name-node1
-Zone-us-central1-c
-Machine Type-Core->4, Memory->26 gb
-Boot Disk Type-Standard Persistent Disk, Size-200 gb
-Identity and Api Access
Select your service account which you have created in step 2 example-Test

3.Firewall(tick both options)
tick-Allow Http Traffic
tick-Allow Https Traffic

Click CREATE (instance is created)

4.SSH into your own local terminal not in instance terminal
-Generate an SSH key using the following command:
 $ ssh-keygen -f ~/.ssh/sarfaraz -t rsa   (change name of key as per your choice here key name is-sarfaraz)
 This generates a public/private key pair.
 to ensure this navigate into your local terminal-
 cd .ssh
 ls
 sarfaraz.pub(public key), sarfaraz(private key) two keys file one with .pub extension and another without extension but name are same.

5.In the Compute Engine menu, click Metadata
Click the SSH Keys tab and click Add SSH Keys.
Copy your key data into the input box
 for copying key data type below command in local terminal
 cd .ssh
 ls
 cat sarfaraz.pub (which is mine public key and copy the key data and paste it in input box)

 Click Save. Your public key is now available to all instances in the project.

6.Installing Gcloud COMPUTE(on local terminal)
Cloudera recommends installing the gcloud compute command-line tool because it allows you to manage your Google Compute Engine resources more easily.
Steps to install and configure gcloud compute.

Create an environment variable for the correct distribution

```
export CLOUD_SDK_REPO="cloud-sdk-$(lsb_release -c -s)"

# Add the Cloud SDK distribution URI as a package source
echo "deb http://packages.cloud.google.com/apt $CLOUD_SDK_REPO main" |
sudo tee -a /etc/apt/sources.list.d/google-cloud-sdk.list

# Import the Google Cloud Platform public key
curl https://packages.cloud.google.com/apt/doc/apt-key.gpg | sudo apt-key
add -

# Update the package list and install the Cloud SDK
sudo apt-get update && sudo apt-get install google-cloud-sdk

Initialize the SDK

# Run the following at a command prompt:

gcloud init
Accept the option to log in using your Google user account:

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

In your browser, log in to your Google user account when prompted and
click Allow to grant permission to access Google Cloud Platform
resources.
At the command prompt, select a Cloud Platform project from the list of
those where you have Owner, Editor or Viewer permissions:

Pick cloud project to use:(project name which u have created)
 [1] [my-project-1]
 [2] [my-project-2]
 ...
 Please enter your numeric choice:
If you only have one project, gcloud init selects it for you.
If you have the Google Compute Engine API enabled, gcloud init allows you
to choose a default Compute Engine zone:

Which compute zone would you like to use as project default?
 [1] [asia-east1-a]
 [2] [asia-east1-b]
 ...
 [14] Do not use default zone
 Please enter your numeric choice:
gcloud init confirms that you have complete the setup steps successfully:

gcloud has now been configured!



7.Access instance by SSH
-ssh -i sarfarazkey.pub -o UserKnownHostsFile=/dev/null \-o
CheckHostIP=no -o StrictHostKeyChecking=no sarfaraz@35.188.129.150
(change your username for example ubuntu@123.2.2.9 or xyz@232.43.2.2)
-sudo -i
-change root password
-passwd
-set the same password for root on all instances
-Make below changes in below config file
-nano /etc/ssh/sshd_config
-PermitRootLogin yes
```

-AuthorizedKeysFile /root/.ssh/authorized_keys
-ChallengeResponseAuthentication yes
-PasswordAuthentication yes

-service ssh restart
-ssh-keygen
-ssh-copy-id root@node1
-yes
-give root password
-sysctl -w vm.swappiness=0

Note: Do above changes on all instances

8.Cloudera download and installation
-wget http://archive.cloudera.com/cm5/installer/latest/cloudera-manager-installer.bin
-chmod u+x cloudera-manager-installer.bin
./cloudera-manager-installer.bin
-install by root user and give root user password
-continue installation by GUI.
-In case services are failed to start try to restart the cloudera services.
-Disable the google cloud firewall rule
  Click Networking->VPC network->firewall rule
  Click default-allow-internal and Click edit
  Do this changes- Source IP ranges->0.0.0.0/0 Protocols and ports->Allow all Save & Close
-Access Cloudera Manager with public ip for example- http://138.211.134.109:7180