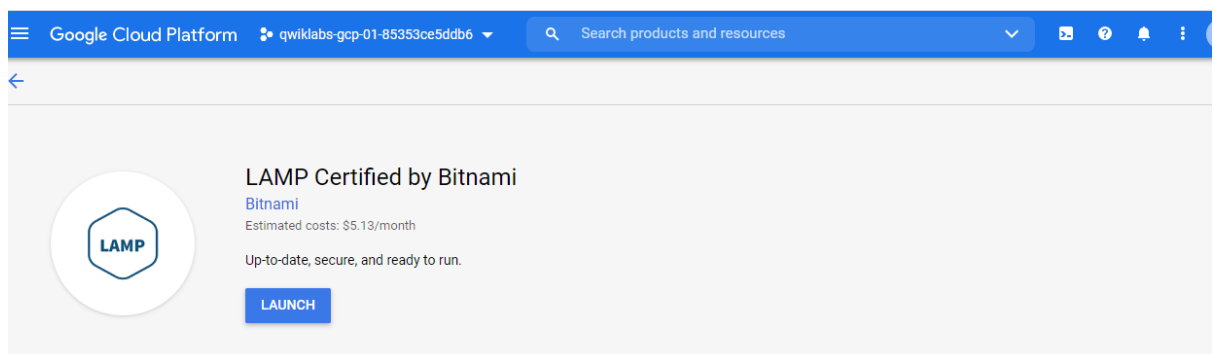
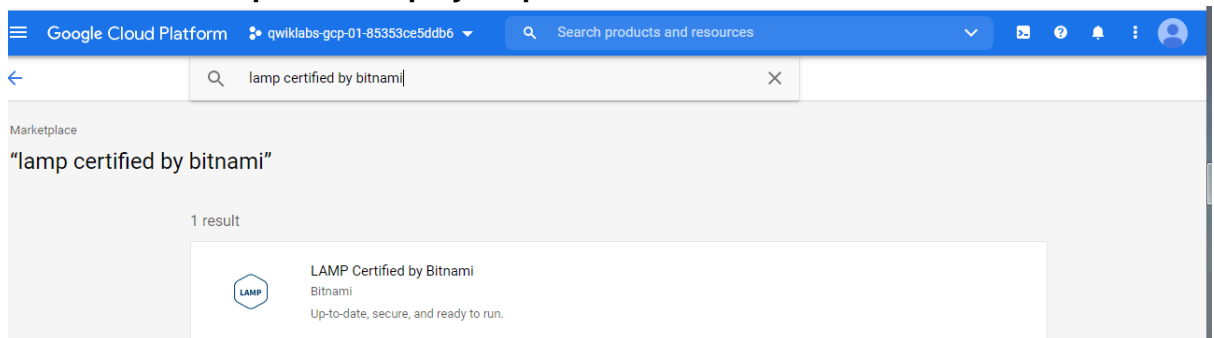


1. Google Cloud Phase II project Submission.

Projects on;

1. GCP Fundamentals: Getting Started with Cloud Marketplace
Use cloud marketplace to deploy lamp stack.



Runs on
Google Compute Engine

Type
[Virtual machines](#)
Single VM

Last updated
9/4/20, 11:07 PM

Category
[Developer tools](#)

Version
7.4.10-0

Operating system

Overview

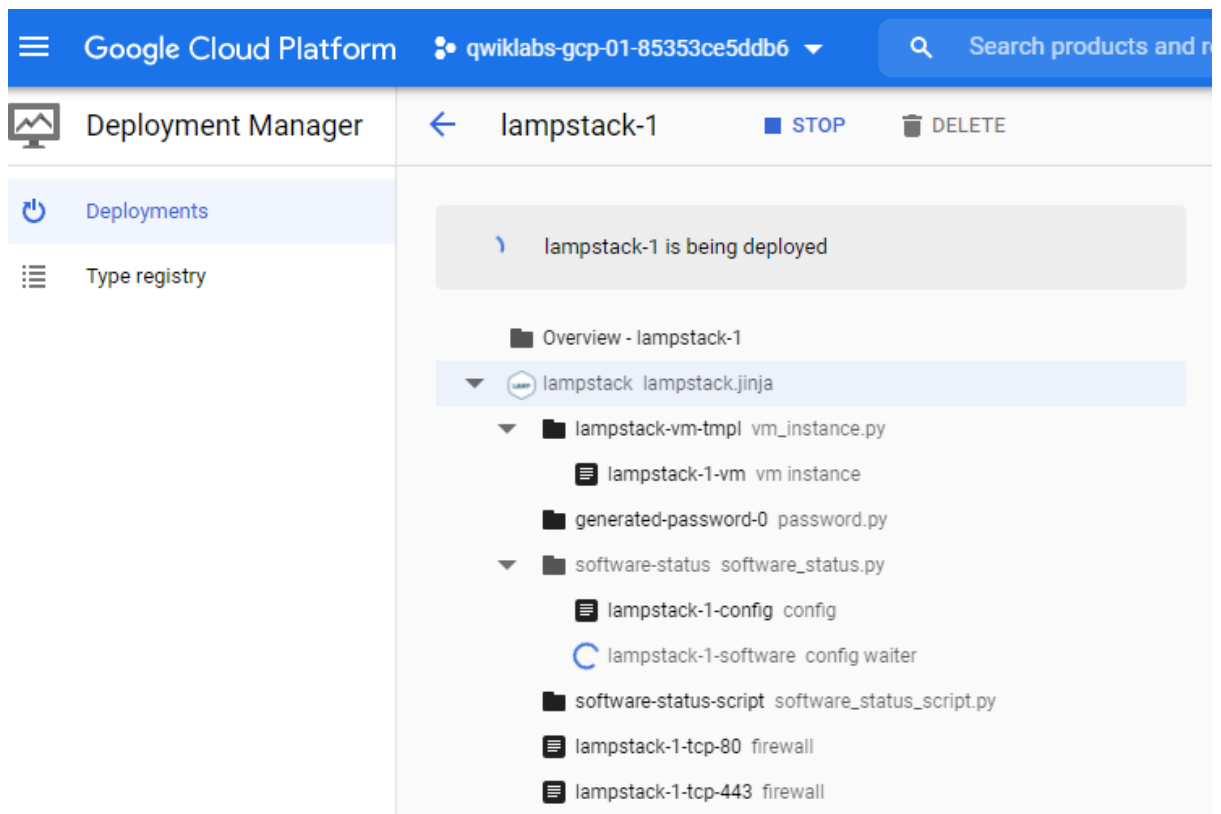
LAMP enables you to quickly start building your websites and applications by providing a coding framework. As a developer, it provides standalone project directories to store your applications. This image is configured for production environments. It includes SSL auto-configuration with Let's Encrypt certificates, and the latest releases of PHP, Apache, and MySQL on Linux. This application also includes phpMyAdmin, PHP main modules and Composer. This open source solution is packaged by Bitnami. Learn how to install, configure, and manage it at docs.bitnami.com. For deployment issues, reach out our support team at community.bitnami.com.

Why use Bitnami Certified Apps?

Bitnami certifies that our images are secure, up-to-date, and packaged using industry best practices.

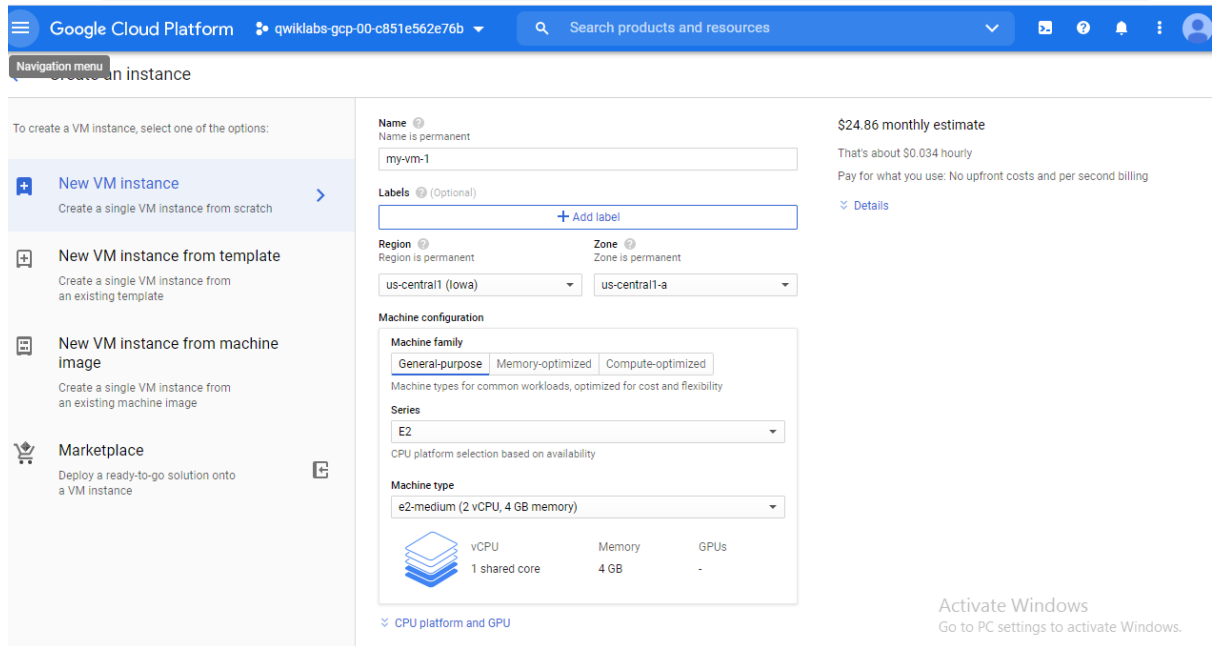
With Bitnami, you can trust what is in the app you're launching. We monitor all the applications we package for vulnerabilities, outdated components and libraries, and application updates. When any of these are identified, we patch and release every affected listing within a couple of days.

Activate Windows
Go to PC settings to activate Windows.



2. GCP Fundamentals: Getting Started with Compute Engine

Create an instance



Vm created.

3. GCP Fundamentals: Getting Started with Cloud Storage and Cloud SQL

Deploy web server vm

Creating using cloud storage bucket using gsutil command line

Create sql cloud instance.

4. GCP Fundamentals: Getting Started with Kubernetes Engine

```
Cloud Shell

cloudshell x + v

Welcome to Cloud Shell! Type "help" to get started.
To set your Cloud Platform project in this session use "gcloud config set project [PROJECT_ID]"
student_00_89fd72b038bf@cloudshell:~$ gcloud auth list
Credentialed Accounts
ACTIVE ACCOUNT
student-00-89fd72b038bf@qwiklabs.net
To set the active account, run:
$ gcloud config set account 'ACCOUNT'
student_00_89fd72b038bf@cloudshell:~$ Credentialed accounts:
bash: Credentialed: command not found
student_00_89fd72b038bf@cloudshell:~$ - <myaccount>@<mydomain>.com (active)Credentialed accounts:
bash: syntax error near unexpected token `('
student_00_89fd72b038bf@cloudshell:~$ - google1623327_student@qwiklabs.netgcloud config list projectgit clone https://github.com/googlecode/labels/orchestrate-with-kub
ernetes.git
bash: -: command not found
student_00_89fd72b038bf@cloudshell:~$ cd orchestrate-with-kubernetes/kubernetes
bash: cd: orchestrate-with-kubernetes/kubernetes: No such file or directory
student_00_89fd72b038bf@cloudshell:~$
student_00_89fd72b038bf@cloudshell:~$ ls
README-cloudshell.txt
student_00_89fd72b038bf@cloudshell:~$ gcloud config set compute/zone us-central1-a
Updated property [compute/zone].
student_00_89fd72b038bf@cloudshell:~$ gcloud container clusters create bootcamp --num-nodes 5 --scopes "https://www.googleapis.com/auth/projecthosting,storage-rw"
ERROR: (gcloud.container.clusters.create) The project property is set to the empty string, which is invalid.
To set your project, run:
$ gcloud config set project PROJECT_ID
or to unset it, run:
$ gcloud config unset project
student_00_89fd72b038bf@cloudshell:~$ kubectl version
Client Version: version.Info{Major:"1", Minor:"19", GitVersion:"v1.19.0", GitCommit:"e19964183377d0ec2052d1f1fa930c4d7575bd50", GitTreeState:"clean", BuildDate:"2020-10-26T14:30:33Z", GoVersion:"go1.15", Compiler:"gc", Platform:"linux/amd64"}
The connection to the server localhost:8080 was refused - did you specify the right host or port?
student_00_89fd72b038bf@cloudshell:~$ kubectl cluster-info
To further debug and diagnose cluster problems, use 'kubectl cluster-info dump'.
```

5. GCP Fundamentals: Getting Started with App Engine Initialising app engine using cloudshell.

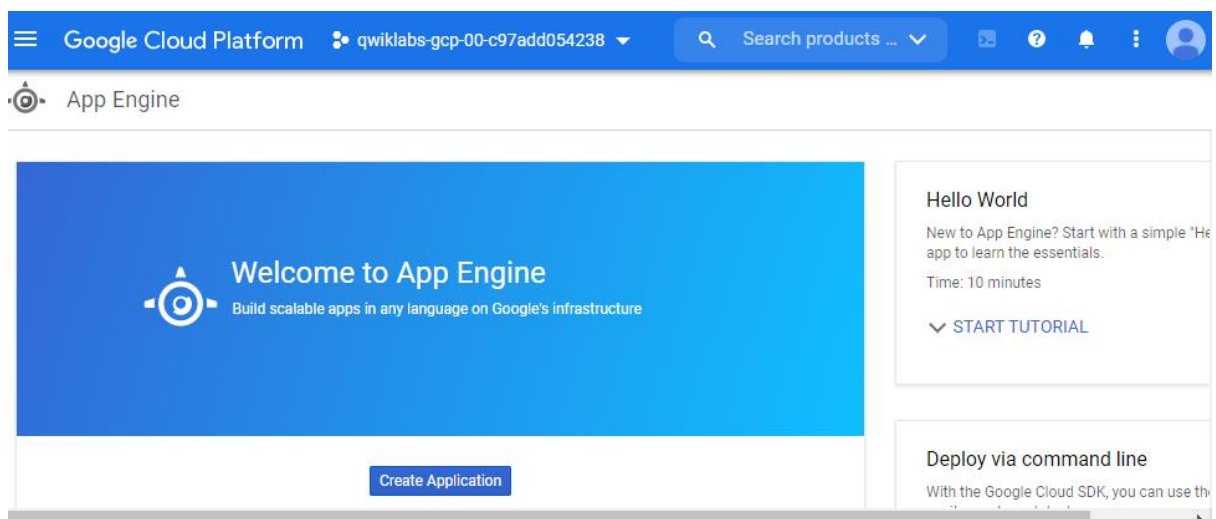
```
Cloud Shell

(qwiklabs-gcp-00-c97add054238) x + v

Terminal tabs have been recovered from an existing session. Dismiss

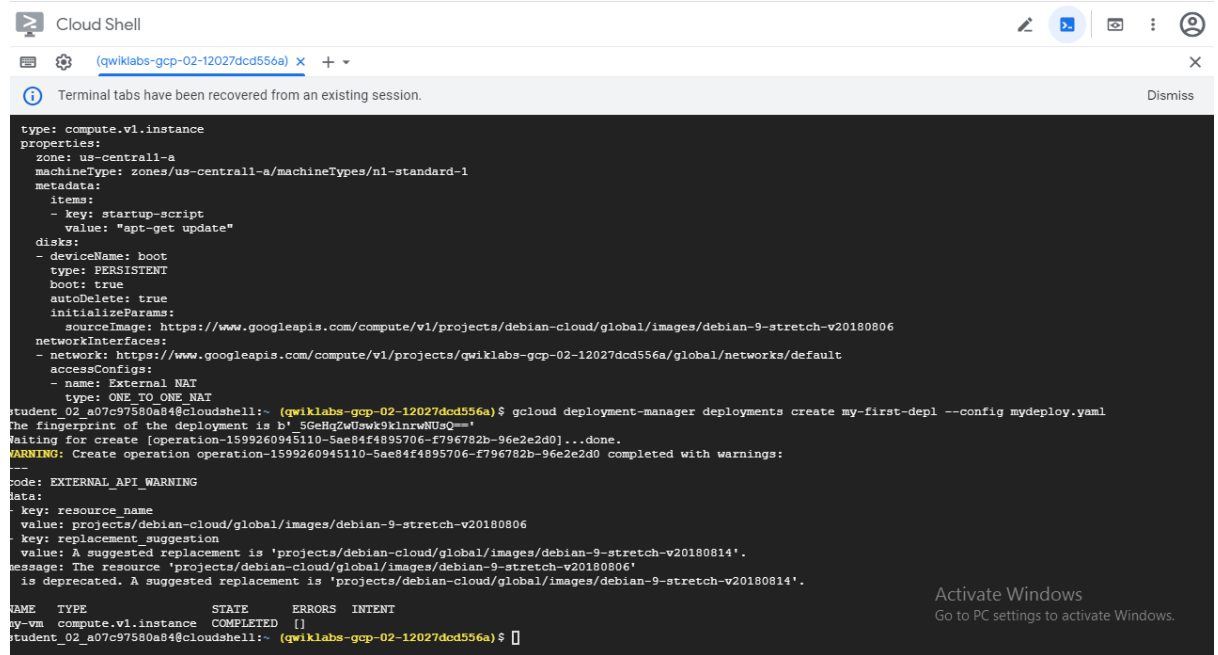
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to qwiklabs-gcp-00-c97add054238.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
student_00_ff446912a47c@cloudshell:~ (qwiklabs-gcp-00-c97add054238)$ gcloud app create --project=$DEVSHHELL_qwiklabs-gcp-00-c97add054238
ERROR: (gcloud) The project property must be set to a valid project ID, not the project name [-gcp-00-c97add054238]
To set your project, run:
$ gcloud config set project PROJECT_ID
or to unset it, run:
$ gcloud config unset project
student_00_ff446912a47c@cloudshell:~ (qwiklabs-gcp-00-c97add054238)$ git clone https://github.com/GoogleCloudPlatform/python-docs-samples
Cloning into 'python-docs-samples'...
remote: Enumerating objects: 54, done.
remote: Counting objects: 100% (54/54), done.
remote: Compressing objects: 100% (48/48), done.
remote: Total 38616 (delta 20), reused 14 (delta 5), pack-reused 38562
Receiving objects: 100% (38616/38616), 60.17 MiB | 20.50 MiB/s, done.
Resolving deltas: 100% (21512/21512), done.
student_00_ff446912a47c@cloudshell:~ (qwiklabs-gcp-00-c97add054238)$ student_00_ff446912a47c@cloudshell:~ (qwiklabs-gcp-00-c97add054238)$
-bash: syntax error near unexpected token `qwiklabs-gcp-00-c97add054238'
student_00_ff446912a47c@cloudshell:~ (qwiklabs-gcp-00-c97add054238)$
```

App engine dashboard.



6. Fundamentals: Getting Started with Deployment Manager and Stackdriver

Create a deployment manager using cloud console.

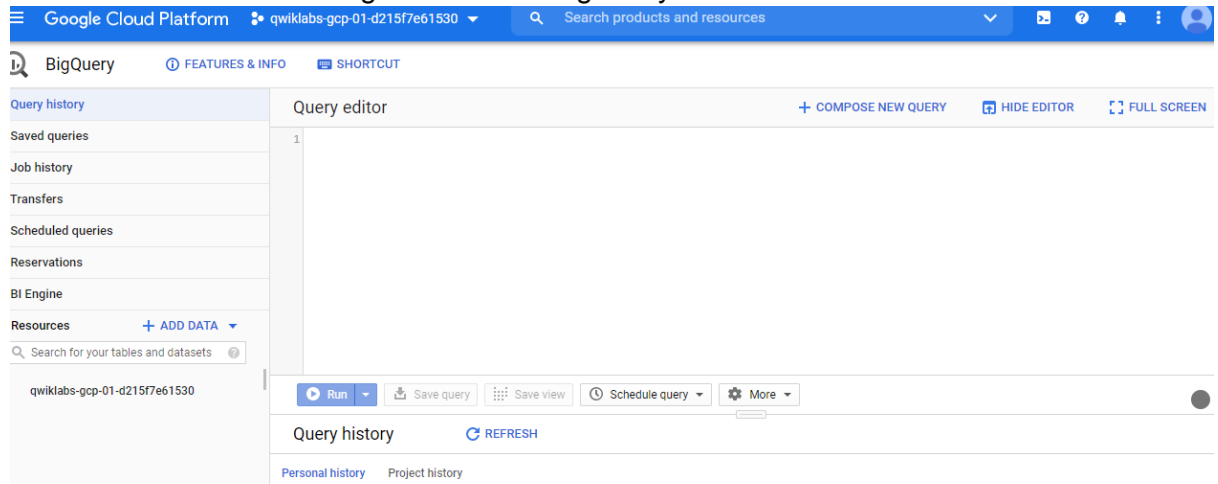


The screenshot shows a Cloud Shell terminal window with the following content:

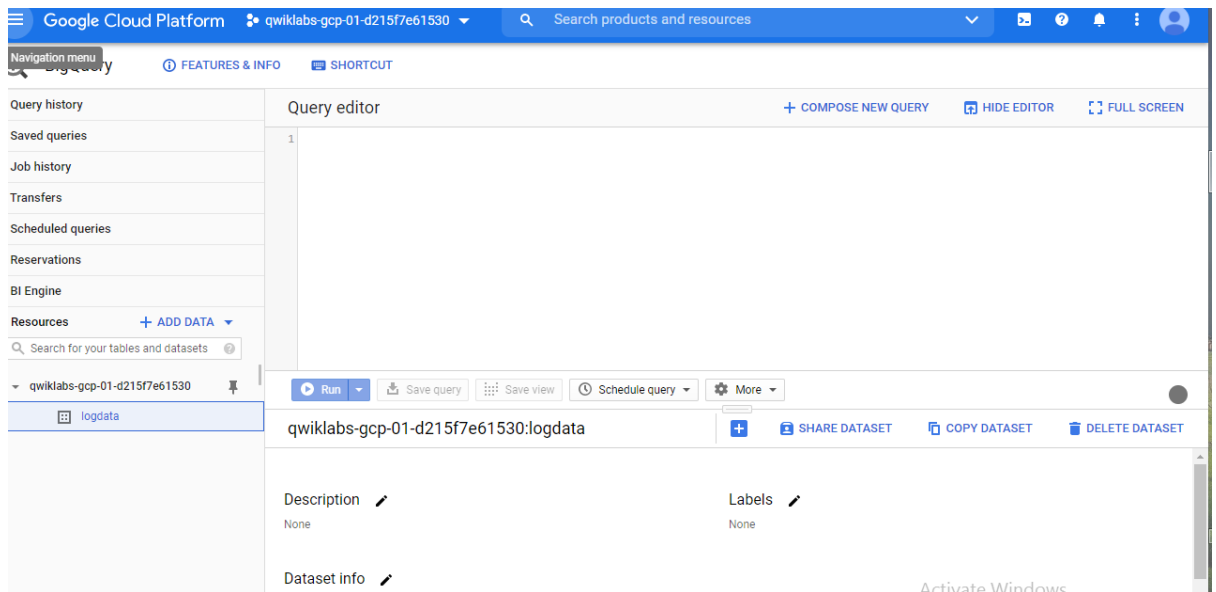
```
type: compute.v1.instance
properties:
  zone: us-central1-a
  machineType: zones/us-central1-a/machineTypes/n1-standard-1
  metadata:
    items:
      - key: startup-script
        value: "apt-get update"
  disks:
    - deviceName: boot
      type: PERSISTENT
      boot: true
      autoDelete: true
      initializeParams:
        sourceImage: https://www.googleapis.com/compute/v1/projects/debian-cloud/global/images/debian-9-stretch-v20180806
  networkInterfaces:
    - network: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-02-12027dcd556a/global/networks/default
      accessConfigs:
        - name: External NAT
          type: ONE_TO_ONE_NAT
student_02_a07c97580a84@cloudshell:~ (qwiklabs-gcp-02-12027dcd556a) $ gcloud deployment-manager deployments create my-first-depl --config mydeploy.yaml
The fingerprint of the deployment is b' 5GeHq2wUawK9klnrwNUaQ=='.
Waiting for create [operation-1599260945110-5ae84f4895706-f796782b-96e2e2d0]...done.
WARNING: Create operation operation-1599260945110-5ae84f4895706-f796782b-96e2e2d0 completed with warnings:
---
code: EXTERNAL_API_WARNING
data:
  key: resource name
  value: projects/debian-cloud/global/images/debian-9-stretch-v20180806
  key: replacement suggestion
  value: A suggested replacement is 'projects/debian-cloud/global/images/debian-9-stretch-v20180814'.
message: The resource 'projects/debian-cloud/global/images/debian-9-stretch-v20180806'
is deprecated. A suggested replacement is 'projects/debian-cloud/global/images/debian-9-stretch-v20180814'.
NAME      TYPE      STATE      ERRORS      INTENT
my-vm     compute.v1.instance  COMPLETED  []
student_02_a07c97580a84@cloudshell:~ (qwiklabs-gcp-02-12027dcd556a) $
```

An "Activate Windows" watermark is visible in the bottom right corner of the terminal window.

7. GCP Fundamentals: Getting Started with BigQuery

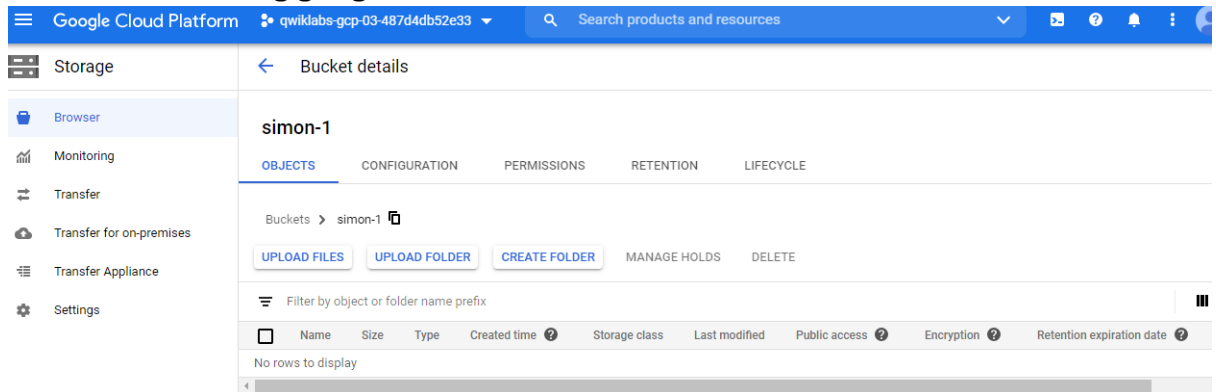


Creating a dataset called log data.

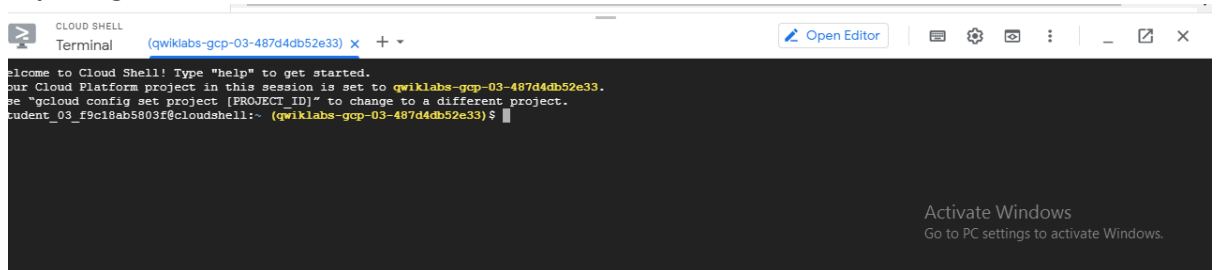


8. Console and Cloud Shell

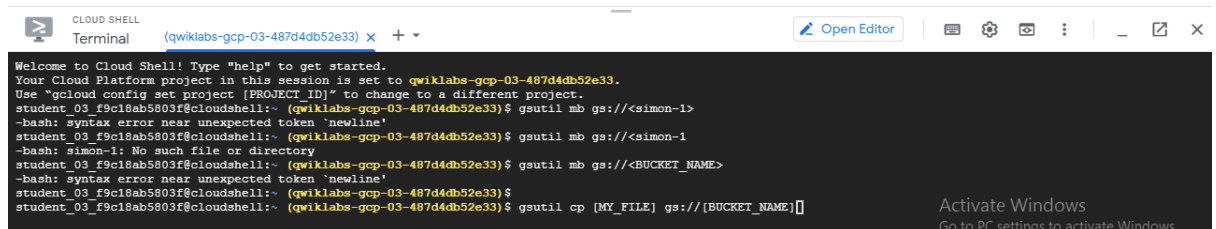
Create bucket using google cloud console.



Exploring cloudshell.



Create a bucket with console



9. VPC Networking

View subnets.

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

CREATE VPC NETWORK

REFRESH

Name	Region	Subnets	Mode	IP address ranges	Gateways	Firewall Rules	Global dynamic routing	Flow logs
▼ default		24	Auto ▼			4	Off	
	us-central1	default		10.128.0.0/20	10.128.0.1			Off
	europa-west1	default		10.132.0.0/20	10.132.0.1			Off
	us-west1	default		10.138.0.0/20	10.138.0.1			Off
	asia-east1	default		10.140.0.0/20	10.140.0.1			Off
	us-east1	default		10.142.0.0/20	10.142.0.1			Off
	asia-northeast1	default		10.146.0.0/20	10.146.0.1			Off
	asia-southeast1	default		10.148.0.0/20	10.148.0.1			Off
	us-east4	default		10.150.0.0/20	10.150.0.1			Off
	australia-southeast1	default		10.152.0.0/20	10.152.0.1			Off
	europa-west2	default		10.154.0.0/20	10.154.0.1			Off
	europa-west3	default		10.156.0.0/20	10.156.0.1			Off
	southamerica-east1	default		10.158.0.0/20	10.158.0.1			Off
	asia-south1	default		10.160.0.0/20	10.160.0.1			Off
	northamerica-northeast1	default		10.162.0.0/20	10.162.0.1			Off

Activate Windows
Go to PC settings to activate Windows.

View the routes.

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Routes

CREATE ROUTE

REFRESH

DELETE

ALL

DYNAMIC

PEERING

Filter table

<input type="checkbox"/>	Name ↑	Description	Destination IP range	Priority	Instance tags	Next hop	Network
<input type="checkbox"/>	default-route-030768b85f38381a	Default local route to the subnetwork 10.132.0.0/20.	10.132.0.0/20	0	None	Virtual network default	default
<input type="checkbox"/>	default-route-116589e036b61348	Default local route to the subnetwork 10.146.0.0/20.	10.146.0.0/20	0	None	Virtual network default	default
<input type="checkbox"/>	default-route-197c2177c9c1776b	Default local route to the subnetwork 10.154.0.0/20.	10.154.0.0/20	0	None	Virtual network default	default
<input type="checkbox"/>	default-route-1ab639ad0f80e71f	Default local route to the subnetwork 10.168.0.0/20.	10.168.0.0/20	0	None	Virtual network default	default
<input type="checkbox"/>	default-route-26ce18c5e1dd6328	Default local route to the subnetwork 10.178.0.0/20.	10.178.0.0/20	0	None	Virtual network	default

View the firewall rules.

VPC network

VPC networks

External IP addresses

Firewall

Routes

VPC network peering

Shared VPC

Serverless VPC access

Packet mirroring

Firewall

CREATE FIREWALL RULE

REFRESH

CONFIGURE LOGS

DELETE

Firewall rules control incoming or outgoing traffic to an instance. By default, incoming traffic from outside your network is blocked. [Learn more](#)

Note: App Engine firewalls are managed [here](#).

Filter table

Name

Type

Targets

Filters

Protocols / ports

Action

Priority

Network

Logs

default-allow-icmp

Ingress

Apply to all

IP ranges: 0.0.0.0/0

icmp

Allow

65534

default

Off

default-allow-internal

Ingress

Apply to all

IP ranges: 10.0.0.0/8

tcp:0-65535
udp:0-65535
icmp

Allow

65534

default

Off

default-allow-rdp

Ingress

Apply to all

IP ranges: 0.0.0.0/0

tcp:3389

Allow

65534

default

Off

default-allow-ssh

Ingress

Apply to all

IP ranges: 0.0.0.0/0

tcp:22

Allow

65534

default

Off

Create auto mode vpc network with firewall rules.

<div>VPC network</div> <div>VPC networks</div> <div>External IP addresses</div> <div>Firewall</div> <div>Routes</div> <div>VPC network peering</div> <div>Shared VPC</div> <div>Serverless VPC access</div> <div>Packet mirroring</div>	VPC networks CREATE VPC NETWORK REFRESH					
	asia-east2	default	10.170.0.0/20	10.170.0.1		Off
	europa-west6	default	10.172.0.0/20	10.172.0.1		Off
	asia-northeast2	default	10.174.0.0/20	10.174.0.1		Off
	asia-northeast3	default	10.178.0.0/20	10.178.0.1		Off
	us-west3	default	10.180.0.0/20	10.180.0.1		Off
	us-west4	default	10.182.0.0/20	10.182.0.1		Off
	asia-southeast2	default	10.184.0.0/20	10.184.0.1		Off
	▼ mynetwork	24	Auto ▼		4	Off
	us-central1	mynetwork	10.128.0.0/20	10.128.0.1		Off
	europa-west1	mynetwork	10.132.0.0/20	10.132.0.1		Off
	us-west1	mynetwork	10.138.0.0/20	10.138.0.1		Off
	asia-east1	mynetwork	10.140.0.0/20	10.140.0.1		Off
	us-east1	mynetwork	10.142.0.0/20	10.142.0.1		Off
	asia-northeast1	mynetwork	10.146.0.0/20	10.146.0.1		Off
	asia-southeast1	mynetwork	10.148.0.0/20	10.148.0.1		Off
	us-east4	mynetwork	10.150.0.0/20	10.150.0.1		Off

10. Creating Virtual Machines

Create a vm

<div>Google Cloud Platform</div> <div>qwiklabs-gcp-02-769edd667caf</div> <div>Search products and resources</div>						
<div>Navigation menu</div> <div>Compute Engine</div> <div>VM instances</div> <div>Instance groups</div> <div>Instance templates</div> <div>Sole-tenant nodes</div> <div>Machine images</div>	<div>VM instances</div> <div>MANAGE ACCESS</div> <div>SHOW INFO PANEL</div> <div>LEARN</div>					
	Filter VM instances					
	Columns					

<input type="checkbox"/> Name ^	Zone	Recommendation	In use by	Internal IP	External IP	Connect
<input checked="" type="checkbox"/> simon-1	us-central1-c			10.128.0.2 (nic0)	None	SSH <div>⌵</div>

Exploring vm details.

<div>Compute Engine</div> <div>VM instances</div> <div>Instance groups</div> <div>Instance templates</div> <div>Sole-tenant nodes</div> <div>Machine images</div> <div>Disks</div> <div>Snapshots</div> <div>Images</div> <div>TPUs</div> <div>Migrate for Compute Engi...</div> <div>Committed use discounts</div> <div>Metadata</div> <div>Health checks</div> <div>Marketplace</div>	<div>VM instance details</div> <div>EDIT</div> <div>RESET</div> <div>CREATE MACHINE IMAGE</div> <div>LEARN</div>					
	simon-1					
	Details Monitoring Screenshot					
	Remote access					
	SSH					
	Connect to serial console					
	Enable connecting to serial ports					
	Logs					
	Cloud Logging					
	Serial port 1 (console)					
	More					
	Instance Id					
	6724480373104803473					
	Machine type					
	e2-medium (2 vCPUs, 4 GB memory)					

Reservation	
Automatically choose	

CPU platform	
Intel Haswell	

Display device	
Turn on a display device if you want to use screen capturing and recording tools.	
Turn on display device	

Zone	
us-central1-c	

11. Infrastructure Preview

Use marketplace to build deployment

Google Cloud Platform

qwiklabs-gcp-02-3b844efdb115

Search products and resources

Deployment Manager

jenkins-1

STOP

DELETE

Deployments

Type registry

jenkins-1 is being deployed

Overview - jenkins-1

jenkins jenkins.jinja

jenkins-vm-templ vm_instance.py

jenkins-1-vm vm instance

generated-password-0 password.py

software-status software_status.py

jenkins-1-config config

jenkins-1-software config waiter

software-status-script software_status_script.py

jenkins-1-tcp-80 firewall

jenkins-1-tcp-443 firewall

Jenkins Certified by Bitnami

Solution provided by Bitnami

Site address

Pending

Admin user

user

Admin password

jqas8YsJv8sCv

(Temporary)

Instance

[jenkins-1-vm](#)

Instance zone

us-central1-f

Instance machine type

g1-small

MORE ABOUT THE SOFTWARE

Get started with Jenkins Certified by Bitnami

You will be able to use Jenkins Certified by Bitnami after the deployment is completed.

Documentation

Getting Started

Get started with Bitnami Jenkins Stack.

Support

Activate Windows

Go to PC settings to activate Windows.

Bitnami provides technical support for installation and setup issues through [our](#)