

Hybrid

Task – 1 Create vm

The screenshot shows the Google Cloud VM instances console. The 'VM instances' table contains one instance:

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
Running	gcp-lab	us-east4-c			10.150.0.2 (med)	35.199.28.82 (med)	SSH

The terminal window shows the following commands and output:

```
gcp-lab:~$ gcloud config set compute/region us-east4
Your active configuration is: [cloudshell-29748]
student_00_04f69b10de78@cloudshell:~$ gcloud config set compute/region us-east4
Updated property [compute/region].
student_00_04f69b10de78@cloudshell:~$ export REGION=us-east4
student_00_04f69b10de78@cloudshell:~$ export REGION=us-east4
student_00_04f69b10de78@cloudshell:~$ export REGION=us-east4
student_00_04f69b10de78@cloudshell:~$
```

The terminal also shows the output of the nginx installation process, including package updates and the final service status:

```
Setting up fonts-dejavu-core (2.37-3) ...
Setting up libnsl1:amd64 (1.1.0-4+deb11u1) ...
Setting up libpam0g:amd64 (1.3.2-7) ...
Setting up libx11-6:amd64 (2:1.7.2-3+deb11u2) ...
Setting up libxft2:amd64 (4.2.0-4+deb11u5) ...
Setting up golang-golang-src-base (20191224-3) ...
Setting up libnginx-mod-mail (1.18.0-6.1+deb11u3) ...
Setting up libnginx-mod-core (1.18.0-6.1+deb11u3) ...
Setting up fontconfig-config (2.13.1-4.2) ...
Setting up libnginx-mod-stream (1.18.0-6.1+deb11u3) ...
Setting up libnginx-mod-stream-gzip (1.18.0-6.1+deb11u3) ...
Setting up libnginx-mod-http-gzip (1.18.0-6.1+deb11u3) ...
Setting up libnginx-mod-http-filters (1.18.0-6.1+deb11u3) ...
Setting up libnginx-mod-http-image-filter (1.18.0-6.1+deb11u3) ...
Setting up nginx-core (1.18.0-6.1+deb11u3) ...
Upgrading binutils.
Setting up nginx (1.18.0-6.1+deb11u3) ...
Processing triggers for man-db (2.9.4-2) ...
Processing triggers for libc-bin (2.31-13+deb11u7) ...
#student_00_04f69b10de78@gcp-lab:~$ ps aux | grep nginx
root      2132  0.0  0.2 4838 12740 ?        S    23:01  0:00 nginx: master process /
usr/sbin/nginx -g daemon on; master process on;
www-data  2135  0.0  0.2 4808 10772 ?        S    23:01  0:00 nginx: worker process
www-data  2136  0.0  0.2 4808 10720 ?        S    23:01  0:00 nginx: worker process
student_  2176  0.0  0.0 5132  708 pts/0  S+   23:02  0:00 grep nginx
#student_00_04f69b10de78@gcp-lab:~$
```

The screenshot shows the Google Cloud VM instances console with a list of four instances:

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
Running	sp2-medium	us-east1-b			10.142.0.9 (med)	35.196.109.36 (med)	SSH
Running	gcp-lab	us-east4-c			10.150.0.2 (med)	35.199.28.82 (med)	SSH
Running	gcp-lab2	us-east1-b			10.142.0.10 (med)	34.75.129.172 (med)	SSH
Running	machine-type	us-east1-b			10.142.0.11 (med)	104.196.68.111 (med)	SSH

The sidebar on the right contains several tutorial links:

- Get started with Compute Engine
- Create a 'hello world' website on IIS
- Create an IIS web server VM using Compute Engine
- Create a 'hello world' website on Apache
- Transfer files to a Windows VM
- Transfer files to a Linux VM
- Enable ingress traffic
- Back up and restore a VM

The screenshot shows the Google Cloud Console interface for VM instances. The main panel displays a table of VM instances:

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
Running	gcp-lab	us-east1-c			10.142.0.2 (nec)	34.25.2.82 (nec)	SSH
Running	gcp-lab2	us-east1-c			10.142.0.3 (nec)	34.199.195.65 (nec)	SSH

Below the table, there are several "Related actions" cards, including "Explore Backup and DR", "Monitor VMs", "Explore VM logs", "Set up firewall rules", "Patch management", and "Load balance between VMs".

A terminal window at the bottom shows the following commands and output:

```

student_01_1235e9411e@cloudshell:~$ gcloud compute instances create gcp-lab2 --\
--machine-type=e2-medium --instance-policy=...
student_01_1235e9411e@cloudshell:~$ gcloud compute instances create gcp-lab2 --\
--machine-type=e2-medium --instance-policy=...
student_01_1235e9411e@cloudshell:~$ gcloud compute instances create gcp-lab2 --\
--machine-type=e2-medium --instance-policy=...
Created [https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-01-ecf341914b31/zones/us-east1-c/instances/gcp-lab2].
NAME: gcp-lab2
ZONE: us-east1-c
MACHINE_TYPE: e2-medium
SYSTEM_DISK:
INTERNAL_IP: 10.142.0.3
EXTERNAL_IP: 34.199.195.65
STATUS: RUNNING
student_01_1235e9411e@cloudshell:~$

```

Create Windows VM and access RDP

The screenshot shows the Google Cloud Console interface for VM instances. The main panel displays a table of VM instances:

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
Running	instance-1	us-west1-c			10.138.0.2 (nec)	34.82.14.78 (nec)	RDP

A terminal window at the bottom shows the following commands and output:

```

student_00_5d31dc23d38@cloudshell:~$ gcloud compute instances create instance-1 --\
--machine-type=f1-micro --instance-policy=...
Created [https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-04-ebb1a45dcd/zones/us-west1-c/instances/instance-1].
NAME: instance-1
ZONE: us-west1-c
MACHINE_TYPE: f1-micro
SYSTEM_DISK:
INTERNAL_IP: 10.138.0.2
EXTERNAL_IP: 34.82.14.78
STATUS: RUNNING
student_00_5d31dc23d38@cloudshell:~$

```

Overlaid on the terminal is a Windows Server Manager dashboard window titled "Server Manager - Remote Desktop Connection". The dashboard shows a "WELCOME TO SERVER MANAGER" message and a "QUICK START" section with the following steps:

1. Configure this local server
2. Add roles and features
3. Add other servers to manage
4. Create a server group
5. Connect this server to cloud serv

The dashboard also includes a "WHAT'S NEW" section and a "ROLES AND SERVER GROUPS" section.

Getting Started with Cloud Shell and gcloud

The screenshot displays the Google Cloud Platform console interface. The top navigation bar shows the project name 'qwklabs-gcp-01-39532e20a50'. The main area is titled 'VM instances' and shows a table with columns for Status, Name, Zone, Recommendations, In use by, Internal IP, External IP, and Connect. Below the table, there are several 'Related actions' cards, such as 'Explore Backup and DR', 'Monitor VMs', and 'Set up firewall rules'. At the bottom, a Cloud Shell terminal window is open, showing the output of 'gcloud compute instances describe' and 'gcloud compute instances create' commands. The terminal output includes details about the VM instance configuration, such as the image 'debian-cloud/debian-11', the network 'gcp-net', and the instance name 'lab-cluster-01'.

Kubernetes

The screenshot displays the Google Cloud Platform console interface for the 'Kubernetes Engine' section. The main area shows a list of clusters, with 'lab-cluster' selected. The cluster details are displayed, including the name, location type, control plane zone, default node zone, release channel, version, and total size. Below the details, there are sections for 'Automation' and 'APP ERRORS (4)'. At the bottom, a Cloud Shell terminal window is open, showing the output of 'kubectl get service' and 'kubectl get endpoints' commands. The terminal output shows details for the 'helloworld' service, including its type, port, and the endpoints of its pods. The output for 'kubectl get endpoints' shows the 'helloworld' endpoint with its IP address and port.

Set Up Network & HTTP Load Balancers, GCP Essentials

The screenshot displays the Google Cloud Console interface for a project named 'qwklabs-gcp-01-49b88a7a14bc'. The 'Health checks' page is active, showing a table of existing health checks:

Name	Scope	Region	Host	Path	Protocol	Port	In use by
basic-check	Global			/	HTTP	80	web-pool
http-basic-check	Global			/	HTTP	80	web-backend-service

Below the console, a Cloud Shell terminal window is open, showing the following commands and their outputs:

```
kwame: web-map-http
$ gcloud compute target-http-proxies create http-lb-proxy \
  --url-map web-map-http
Created [https://www.googleapis.com/compute/v1/projects/qwklabs-gcp-01-49b88a7a14bc/global/targetHttpProxies/http-lb-proxy].
kwame: http-lb-proxy
$ gcloud compute forwarding-rules create http-content-rule \
  --global \
  --target-http-proxy=http-lb-proxy \
  --ports=80
Created [https://www.googleapis.com/compute/v1/projects/qwklabs-gcp-01-49b88a7a14bc/global/forwardingRules/http-content-rule].
```

Task 2

Cli create bucket

The screenshot shows the Google Cloud Storage console for a bucket named 'edopradocastello'. The bucket is located in 'us (Multiple regions in United States)' with a 'Standard' storage class and 'Public access' set to 'Subject to object ACLs'. The 'OBJECTS' tab shows two items: 'ads.jpg' (360.1 KB, image/jpeg, created Jan 29, 2024, 9:55:30 PM) and 'image-folder/' (Folder, created Jan 29, 2024, 9:57:26 PM).

The terminal window at the bottom shows the following commands and output:

```

/ $ ls | wc -l | dd if=/dev/urandom bs=1024 count=360 | mv -f /dev/null
Operation completed over 1 objects/360.1 KiB.
student_00_4f133530d281cloudshell: (qwiklabs-gcp-01-d83583eb976) $ gsuutil ls gs://edopradocastello
gs://edopradocastello/ads.jpg
gs://edopradocastello/image-folder/
student_00_4f133530d281cloudshell: (qwiklabs-gcp-01-d83583eb976) $ gsuutil ls -l gs://edopradocastello/ads.jpg
268723 2024-01-30T02:55:30Z gs://edopradocastello/ads.jpg
TOTAL: 1 objects, 368723 bytes (360.08 KiB)
student_00_4f133530d281cloudshell: (qwiklabs-gcp-01-d83583eb976) $ gsuutil acl ch -o AllUsers:R gs://edopradocastello/ads.jpg
Updated ACL on gs://edopradocastello/ads.jpg
student_00_4f133530d281cloudshell: (qwiklabs-gcp-01-d83583eb976) $ gsuutil acl ch -d AllUsers gs://edopradocastello/ads.jpg
student_00_4f133530d281cloudshell: (qwiklabs-gcp-01-d83583eb976) $ gsuutil acl ch -d AllUsers gs://edopradocastello/image-fold

```

A blue callout box points to the terminal output with the text: "Click here to see details about your Cloud Shell session and usage quota" and "Got it".

Cloud iam

The screenshot shows the Google Cloud IAM console for the service account 'edopradocastello'. The 'PERMISSIONS' tab shows a list of permissions granted to the service account. A blue callout box highlights the search bar with the text: "You can now search for documentation, resource metadata, tutorials, and API keys".

The terminal window at the bottom shows the following commands and output:

```

AccessDeniedException: 403 student-00-5823898754@qwiklabs.net does not have storage.buckets.list access to the Google Cloud project. Permission 'storage.buckets.list' denied on resource (or it may not exist).
student_00_5823898754@qwiklabs.net: (qwiklabs-gcp-00-944fc0f38ae8) $ gsuutil ls gs://edopradocastello
AccessDeniedException: 403 student-00-5823898754@qwiklabs.net does not have storage.buckets.list access to the Google Cloud project. Permission 'storage.buckets.list' denied on resource (or it may not exist).
student_00_5823898754@qwiklabs.net: (qwiklabs-gcp-00-944fc0f38ae8) $ gsuutil ls gs://edopradocastello
AccessDeniedException: 403 student-00-5823898754@qwiklabs.net does not have storage.objects.list access to the Google Cloud Storage bucket. Permission 'storage.objects.list' denied on resource (or it may not exist).
student_00_5823898754@qwiklabs.net: (qwiklabs-gcp-00-944fc0f38ae8) $ gsuutil ls gs://edopradocastello/sample.txt
AccessDeniedException: 403 student-00-5823898754@qwiklabs.net does not have storage.objects.list access to the Google Cloud Storage bucket. Permission 'storage.objects.list' denied on resource (or it may not exist).
student_00_5823898754@qwiklabs.net: (qwiklabs-gcp-00-944fc0f38ae8) $ gsuutil ls gs://edopradocastello/sample.txt
gs://edopradocastello/sample.txt
student_00_5823898754@qwiklabs.net: (qwiklabs-gcp-00-944fc0f38ae8) $

```

A blue callout box points to the terminal output with the text: "Click here to see details about your Cloud Shell session and usage quota" and "Got it".

Cloud monitoring

ALERT CONDITIONS

- VM Instance - Network traffic
- Configure trigger

ALERT DETAILS

- Notifications and name
- Review alert

VM Instance - Network traffic

Condition type	Triggers when	Threshold position	Threshold value	Retest window
Threshold	Any time series cross threshold	Above threshold	500	1 min

Policy Details

Alert Policy Name: Inbound Traffic Alert

Severity: No severity

Notification channels

Notify on incident open only. Incidents with absent data will auto close after 7 days.

Channel type	Channel name
Email	eduardo

Documentation

jdkrnfaindkfjnsdjkfna

Terminal

```
Get it https://packages.cloud.google.com/apt/google-cloud-ops-agent-bullseye-11/main amd64 google-cloud-ops-agent amd64 2.46.1-debian11 [94.7 MB]
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package google-cloud-ops-agent.
(Reading database ... 130629 files and directories currently installed.)
Preparing to unpack .../google-cloud-ops-agent_2.46.1-debian11_amd64.deb ...
Unpacking google-cloud-ops-agent (2.46.1-debian11) ...
Setting up google-cloud-ops-agent (2.46.1-debian11) ...
Created symlink /etc/systemd/system/google-cloud-ops-agent.service - /lib/systemd/system/google-cloud-ops-agent.service.
google-cloud-ops-agent installation succeeded.
student_00_721e2c8eb281@cloudshell: (qwiklabs-gcp-00-774606ed50f5) sudo systemctl status google-cl
System has not been booted with systemd as init system (PID 1). Can't operate.
Failed to connect to bus: Host is down
student_00_721e2c8eb281@cloudshell: (qwiklabs-gcp-00-774606ed50f5) █
```

Fuction

Project Info

- Project name: qwiklabs-gcp-04-f91788d2f54
- Project number: 518825856122
- Project ID: qwiklabs-gcp-04-f91788d2f54

API APIs

Requests (requests/sec)

Requests: 0.057/s

Google Cloud Platform status

All services normal

Billing

Estimated charges: USD \$0.00

Monitoring

Create my dashboard

Set up alerting policies

Create uptime checks

Terminal

```
sourceArchiveUrl: gs://qwiklabs-gcp-04-f91788d2f54-us-central1-helloWorld-fsajyottr1.zip
runtime: ACT1FW
timeout: 60s
updateTime: '2024-01-30T03:41:04.357Z'
versionId: '1'
student_00_0d08ba3d3f78@cloudshell: /gcp_hello_world (qwiklabs-gcp-04-f91788d2f54) $ DATA=$(printf 'Hello World') $(base64) && gcloud functions call helloWorld --data "(*data)*"$(DATA)"
stdout: 00_0d08ba3d3f78@cloudshell: /gcp_hello_world (qwiklabs-gcp-04-f91788d2f54) $ gcloud functions logs read helloWorld
LOGS: 0
NAME: helloWorld
Execution ID: 09e818e8ee
TIME UTC: 2024-01-30 03:41:52.498
LOG: Function execution started
student_00_0d08ba3d3f78@cloudshell: /gcp_hello_world (qwiklabs-gcp-04-f91788d2f54) █
```

Perform foundational infra

The screenshot displays the Google Cloud IAM Admin console for the project 'qwklabs-gcp-00-b5134c3d47d4'. The main heading is 'Permissions for project "qwklabs-gcp-00-b5134c3d47d4"'. Below this, there's a notification about the 2024 at-scale policy analysis. The interface shows a table of principals with columns for Type, Principal, Name, Role, and Security insights. The table lists several service accounts and a user, each with their assigned roles. On the right, there are several 'Recommended for you' cards with links to help documents. At the bottom, there are two notification banners: one indicating a user was removed and another showing an upload operation is complete.

Type	Principal	Name	Role	Security insights
Service account	837361291143-compute@developer.gserviceaccount.com	Compute Engine default service account	Editor	✓
Service account	admin@qwklabs-services-prod.iam.gserviceaccount.com		Owner	✓
Service account	qwklabs-gcp-00-b5134c3d47d4@qwklabs-gcp-00-b5134c3d47d4.iam.gserviceaccount.com	Qwklabs User Service Account	BigQuery Admin	✓
Service account			Owner	
Service account			Storage Admin	
User	student-01-975c12f9591e@qwklabs.net	student bf00cfa	Owner	✓
			Project IAM Admin	
			Viewer	

Lab3 – configuring iam permission with gcloud

The screenshot shows a Google Cloud Skills Boost lab page. The title is 'Configuring IAM Permissions' and it's part of the 'Deploy and Manage Cloud Environments with Google Cloud' course. The lab is marked as 'End Lab' with a timer showing 00:58:58. A 'Congratulations!' message states: 'You have completed the following tasks using the Cloud SDK tool, gcloud:'. The tasks listed are: installed and configured the gcloud client, created and switched between multiple IAM configurations, identified and assigned correct IAM permissions, and created and used a service account. Below this, there's a 'Finish your quest' section with instructions on how to earn a badge or link to a quest. At the bottom, there's a 'Take your next lab' section. On the right side, there's a terminal window showing the output of the 'gcloud iam' command, listing various roles and permissions.

Hosting a web app on google cloud using compute engine

```
restarting: 0
reasoning: 0
starting: 0
stopping: 0
suspending: 0
verifying: 1
fiatoprint: 7846238723
id: "117704948003899"
instanceGroup: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-02-a0f2c6321fcd/zones/us-east1-c/instanceGroups/fancy-fe-mig
instanceLifecycle:
  forceUpdateRepair: 80
instanceTemplate: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-02-a0f2c6321fcd/global/instanceTemplates/fancy-fe-new
instanceGroupManager:
  instanceGroup: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-02-a0f2c6321fcd/zones/us-east1-c/instanceGroups/fancy-fe-mig
  name: fancy-fe-mig
  namePrefix:
  - name: frontend
  ports:
  - port: 8080
  selfLink: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-02-a0f2c6321fcd/zones/us-east1-c/instanceGroupManagers/fancy-fe-mig
  status:
    autoscaler: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-02-a0f2c6321fcd/zones/us-east1-c/autoscalers/fancy-fe-mig-dm9
    instancePolicy:
      isStable: false
    stateful:
      hasStatefulConfig: false
      persistenceConfig:
        allEffective: true
      verification:
        isReached: false
      targetSize: 2
      updatePolicy:
        maxSurge:
          calculated: 1
          fixed: 1
        maxUnavailable:
          calculated: 2
          percent: 100
        minAction: REPLACE
        replacementMethod: SUBSTITUTE
        type: PROACTIVE
  version:
    instanceTemplate: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-02-a0f2c6321fcd/global/instanceTemplates/fancy-fe-new
    name: 0/2024-01-30 15:11:56.723334000
    targetSize:
      calculated: 2
    zone: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-02-a0f2c6321fcd/zones/us-east1-c
student_00_cae0cf126e@cloudshell: (qwiklabs-gcp-02-a0f2c6321fcd) $ wget -O 2 gcloud compute backend-services get-health fancy-fe-frontend --global
student_00_cae0cf126e@cloudshell: (qwiklabs-gcp-02-a0f2c6321fcd) $ gcloud compute forwarding-rules list --global
NAME: fancy-8080-TLS
REGION:
IP ADDRESS: 34.149.211.254
IP PROTOCOL: TCP
TARGET: fancy-frontend
student_00_cae0cf126e@cloudshell: (qwiklabs-gcp-02-a0f2c6321fcd) $
```

kubernetes

```
apiVersion: v1
kind: Service
metadata:
  name: auth
spec:
  selector:
    app: auth
  ports:
  - name: http
    containerPort: 80
  - name: health
    containerPort: 81
resources:
  limits:
    cpu: 0.2
    memory: "128M"
  requests:
    cpu: 0.1
    memory: "64M"
  livenessProbe:
    httpGet:
      path: /healthz
      port: 81
    scheme: HTTP
    initialDelaySeconds: 5
    periodSeconds: 15
    timeoutSeconds: 5
  readinessProbe:
    httpGet:
      path: /readiness
      port: 81
    scheme: HTTP
    initialDelaySeconds: 5
    timeoutSeconds: 1
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ kubectl create -f deployments/auth.yaml
deployment.apps/auth created
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ kubectl create -f services/auth.yaml
service/auth created
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ kubectl create -f deployments/hello.yaml
deployment.apps/hello created
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ kubectl create -f services/hello.yaml
service/hello created
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ kubectl create -f deployments/frontend.conf
deployment.apps/frontend.conf created
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ kubectl create -f services/frontend.yaml
service/frontend created
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ kubectl create -f config/nginx-frontend.conf
configmap/nginx-frontend.conf created
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ kubectl get services frontend
NAME      TYPE      CLUSTER-IP      EXTERNAL-IP      AGE
frontend  LoadBalancer  10.4.14.15       pending          3s
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ curl -k https://EXTERNAL-IP
bash: syntax error near unexpected token `newline'
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $ curl -k https://34.105.120.116
student_00_cae0cf126e@cloudshell:~/orchestrate-with-kubernetes/kubernetes (qwiklabs-gcp-02-08415f9279dc) $
```

Network

The screenshot shows the Google Cloud VM instances page. The table below lists the instances:

Status	Name	Zone	Recommendations	In use by	Internal IP	External IP	Connect
Running	us-test-01	europa-west4-b			10.0.0.2 (nic0)	34.91.131.77 (nic0)	SSH
Running	us-test-02	us-east1-b			10.1.0.2 (nic0)	34.139.41.120 (nic0)	SSH
Running	us-test-03	europa-west1-c			10.2.0.2 (nic0)	34.76.171.240 (nic0)	SSH

The terminal window shows the following output:

```

Setting up mtr (0.94-1deb11u1) ...
Setting up tcpdump (4.99.0-2deb11u1) ...
Processing triggers for man-db (2.9.4-2) ...
Processing triggers for libc-bin (2.31-13deb11u7) ...
student_02_832f569d81e5@cloudshell:~ (qwklabs-gcp-01-551d420595ee)$ traceroute www.icann.org
traceroute to www.icann.org (192.0.32.7), 30 hops max, 60 byte packets
 1 10.0.0.1 (10.0.0.1)  0.056 ms  0.014 ms  0.014 ms
 2 216.239.47.208 (216.239.47.208)  12.318 ms  12.494 ms  12.462 ms
 3 ae19.cr1-was1.ip4.gtt.net (69.174.23.133)  12.999 ms  12.955 ms  12.907 ms
 4 ae14.cr5-lax2.ip4.gtt.net (59.149.180.234)  66.869 ms  66.834 ms  66.766 ms
 5 ip4.gtt.net (69.174.9.218)  68.287 ms  67.380 ms  69.213 ms
 6 www.icann.org (192.0.32.7)  68.183 ms  67.450 ms  67.159 ms
student_02_832f569d81e5@cloudshell:~ (qwklabs-gcp-01-551d420595ee)$

```

The screenshot shows the Google Cloud BigQuery Studio interface. The Explorer on the left shows the project structure:

- qwklabs-gcp-01-fe2dc9e3e636

The main area displays "Welcome to BigQuery Studio" and "Get started" with a "CREATE SQL QUERY" button. Below that, the "Recently accessed" section shows a job from 2024-01-30 11:00:00.

The terminal window shows the following output:

```

-bash: protopayload_auditlog_servicedata_v1_bigquery_jobCompletedEvent_job.jobStatistics.queryOutputRowCount: command not found
-bash: severity: command not found
-bash: FROM: command not found
-bash: YOUR_PROJECT_ID: No such file or directory
-bash: ORDER: command not found
-bash: startTime: command not found
student_00_cae0c5f126e@cloudshell:~ (qwklabs-gcp-01-fe2dc9e3e636)$ SELECT * FROM bq_logs.v_querylogs
-bash: SELECT: command not found
student_00_cae0c5f126e@cloudshell:~ (qwklabs-gcp-01-fe2dc9e3e636)$ SELECT * FROM bq_logs.v_querylogs
-bash: SELECT: command not found
student_00_cae0c5f126e@cloudshell:~ (qwklabs-gcp-01-fe2dc9e3e636)$

```

Migrate sql

Browser tabs: Create a migration job - Data..., Novo separador

Address bar: console.cloud.google.com/dbmigration/migrations/locations/us-east1/instances/vm-to-cloudsql/edit?authuser=5&project=qwiklabs-gcp-00-e48ab1675cd0

Google Cloud logo | qwiklabs-gcp-00-e48ab1675cd0 | databa

Modal: Quer sair do site? É possível que as alterações não tenham sido efetuadas. [Sair] [Cancelar]

Create a migration job

- 1. Get started
vm-to-cloudsql, PostgreSQL to Cloud SQL for PostgreSQL (Continuous)
- 2. Define a source
postgres-vm
- 3. Define a destination
Creating an instance for your destination database...
- 4. Define connectivity method
Not configured
- 5. Test and create migration job
Not tested

[SAVE & EXIT](#) [DISCARD DRAFT](#)

Storage

Storage type
Choice is permanent. Storage type affects performance.

- SSD (Recommended)
Most popular choice. Lower latency than HDD with higher IOPS and data throughput.
- HDD
Lower performance than SSD with lower storage rates.

Storage capacity
10 - 65,536 GB. Higher capacity improves performance, up to the limits set by the machine type. Capacity can't be decreased later.

- 10 GB
- 20 GB
- 100 GB
- 250 GB
- Custom

Enable automatic storage increases
If enabled, whenever you are nearing capacity, storage will be incrementally (and permanently) increased. [Learn more](#)

[SHOW OPTIONAL CONFIGURATIONS](#)

[CREATING...](#)