End Lab 00:48:21

Open Google Console

Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. Learn more.

Username

student-04-b5a990098832@qwiklabs

Password

Kc75HfVKpwQt

GCP Project ID

qwiklabs-gcp-04-0da0b65c8812

Score 10/10

Resource Monitoring

1 hour Free ★★★★☆ Rate Lab

Overview

In this lab, you learn how to use Cloud Monitoring to gain insight into applications that run on Google Cloud.

Objectives

In this lab, you learn how to perform the following tasks:

- Explore Cloud Monitoring
- Add charts to dashboards
- Create alerts with multiple conditions
- Create resource groups
- Create uptime checks

For each lab, you get a new GCP project and set of resources for a fixed time at no cost.

1. Make sure you signed into Qwiklabs using an **incognito window**.

2. Note the lab's access time (for example, 02:00:00 and make sure you can finish in that time block.

   There is no pause feature. You can restart if needed, but you have to start at the beginning.

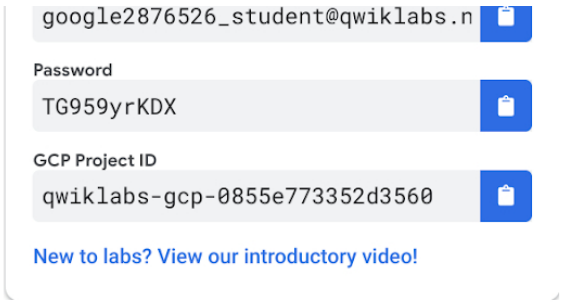
3. When ready, click START LAB.

4. Note your lab credentials. You will use them to sign in to Cloud Platform Console.

Open Google Console

Caution: When you are in the console, do not deviate from the lab instructions. Doing so may cause your account to be blocked. Learn more.

Username



5. Click **Open Google Console**.

6. Click **Use another account** and copy/paste credentials for **this** lab into the prompts.

> If you use other credentials, you'll get errors or **incur charges**.

7. Accept the terms and skip the recovery resource page.

> Do not click **End Lab** unless you are finished with the lab or want to restart it. This clears your work and removes the project.

Task 1: Create a Cloud Monitoring workspace

Verify resources to monitor

Three VM instances have been created for you that you will monitor.

1. In the Cloud Console, on the **Navigation menu** (≡), click **Compute Engine** > **VM instances**. Notice the **nginxstack-1**, **nginxstack-2** and **nginxstack-3** instances.

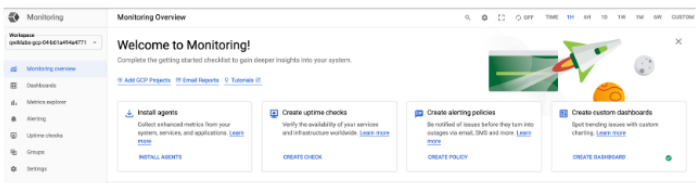
Create a Monitoring workspace

You will now setup a Monitoring workspace that's tied to your Qwiklabs GCP Project. The following steps create a new account that has a free trial of Monitoring.

1. In the Google Cloud Platform Console, click on **Navigation menu** > **Monitoring**.

2. Wait for your workspace to be provisioned.

When the Monitoring dashboard opens, your workspace is ready.



Why is monitoring important to Google?

- [ ] Monitoring is important to ensure that Google complies with regulatory requirements defined by both government and industry security bodies.
- [x] It is at the base of site reliability which incorporates aspects of software engineering and applies that to operations whose goals are to create ultra-scalable and highly reliable software

systems.

- [ ] Google uses monitoring to ensure they have all the important metrics for reporting purposes to customers and the other interested bodies. The number of reports requires the collection and reporting to be both broad and deep.

Submit

Task 2: Custom dashboards

Create a dashboard

1. In the left pane, click **Dashboards** > **Create Dashboard**.
2. For **New Dashboard Name**, type **My Dashboard**, and press **Confirm**.

Add a chart

1. Click **Add Chart**.
2. For **Title**, give your chart a name (you can revise this before you save based on the selections you make).
3. For **Find resource type and metric**, select **GCE VM Instance**.
4. For **Metrics**, select a metric to chart for the Instance resource, such as **CPU utilization** or **Network traffic**.

> Note: If you are getting a 'loading failed' error message, you might have to refresh the page.

5. Click **Filter** and explore the various options.
6. Click **View Options** and explore adding a Threshold or changing the **Chart mode**.
7. Click **Save** to add the chart to your dashboard.

Metrics Explorer

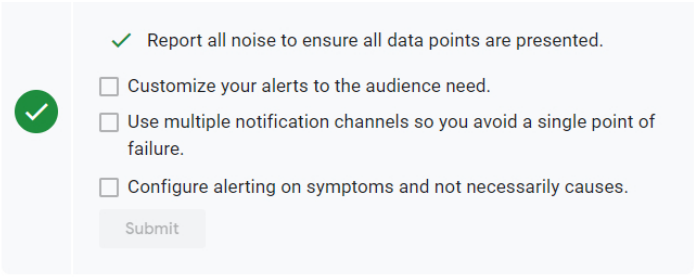
The **Metrics Explorer** allows you to examine resources and metrics without having to create a chart on a dashboard. Try to recreate the chart you just created using the **Metrics Explorer**.

1. In the left pane, click **Metrics Explorer**.
2. For **Find resource type and metric**, type a metric or resource name.
3. Explore the various options and try to recreate the chart you created earlier.

> Not all metrics are currently available on the Metrics Explorer, so you might not be able to find the exact metric you used on the previous step.

Task 3: Alerting policies

What is not a recommended best practice for alerts?



Create an alert and add the first condition

1. In the left pane, click **Alerting** > **Create Policy**.
2. Name the policy as **Test**.
3. Click **Add Condition**.
4. For **Find resource type and metric**, select **GCE VM Instance**.

> If you cannot locate the **GCE VM Instance** resource type, you might have to refresh the page.

5. Select a metric you are interested in evaluating, such as **CPU usage** or **CPU Utilization**.
6. For **Condition**, select **is above**.
7. Specify the threshold value and for how long the metric must cross this set value before the alert is triggered. For example, for **THRESHOLD**, type **20** and set **FOR** to **1 minute**.
8. Click **ADD**.

Add a second condition

1. Click **Add Condition**.
2. Repeat the steps above to specify the second condition for this policy. For example, repeat the condition for a different instance. Click **ADD**.
3. In **Policy Triggers**, for **Trigger when**, click **All conditions are met**.

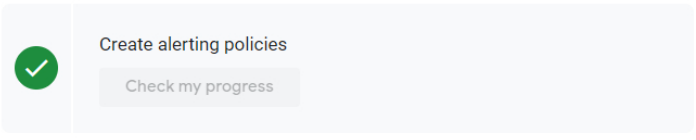
Configure notifications and finish the alerting policy

1. In **Notifications** section, click **Add Notification Channel**.
2. Select **Email** for **Notification Channel Type**.
3. Enter the Qwiklabs username as the email address.

> If you enter your own email address, you might get alerts until all the resources in the project have been deleted.

4. Click **Add**.
5. Skip the Documentation step.
6. Click **Save**.

Click **Check my progress** to verify the objective.



Task 4: Resource groups

1. In the left pane, click **Groups** > **Create Group**.
2. Enter a name for the group. For example: **VM instances**
3. Type **nginx** in the value field next to **Contains**.
4. Click **CREATE**.
5. Review the dashboard Cloud Monitoring created for your group.

Task 5: Uptime monitoring

Select all valid targets for Cloud Monitoring uptime alert notifications.

- [ ] SMS
- [ ] webhook
- [ ] 3rd party service
- [ ] Pub/Sub
- [ ] EC2 service
- [ ] email

Submit

One or more of your choices is incorrect.

1. In the Monitoring tab, click on **Uptime Checks**.
2. Click **Create Uptime Check**.
3. Specify the following, and leave the remaining settings as their defaults:

Property	Value (type value or select option as specified)
Title	*Enter a title*
Check Type	**HTTP**
Resource Type	**Instance**
Applies To	**Group**
Group	*Select your group*
Check every	**1 minute**

4. Click **Save**.

If the **Save** button is grayed out, you might have to refresh the page.

5. Click **No thanks**.

Click **Check my progress** to verify the objective.

Create uptime monitoring

Check my progress

Task 6: Review

In this lab, you learned how to:

- Monitor your projects
- Create a Cloud Monitoring workspace
- Create alerts with multiple conditions
- Add charts to dashboards
- Create resource groups
- Create uptime checks for your services

End your lab

When you have completed your lab, click **End Lab**. Qwiklabs removes the resources you've used and cleans the account for you.

You will be given an opportunity to rate the lab experience. Select the applicable number of stars, type a comment, and then click **Submit**.

The number of stars indicates the following:

- 1 star = Very dissatisfied
- 2 stars = Dissatisfied
- 3 stars = Neutral
- 4 stars = Satisfied
- 5 stars = Very satisfied

You can close the dialog box if you don't want to provide feedback.

For feedback, suggestions, or corrections, please use the **Support** tab.