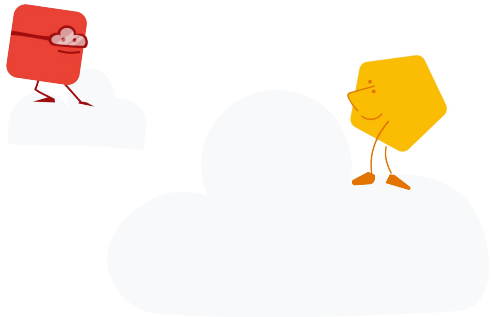
The Digital Event will start momentarily.
Respect your fellow listeners, please mute your microphone.

If you are experiencing poor connectivity, please turn off your camera.



While we are waiting, if you don't already have a Qwiklabs account under your **Corporate** @commerzbank.com **Email**, please visit: https://google.qwiklabs.com/ click "Join" and create one.

Welcome to Cloud Hero!

Infra Skills for

COMMERZBANK

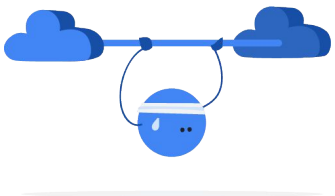
July 30, 2021

Introductions

Eduardo Diaz
Customer Success Manager

Jo Hellwig
Technical Account Manager

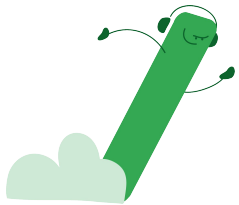
Event Agenda



1	2 min	Welcome + Introductions
2	2 min	What is Cloud Hero?
3	15-20 min	Solution Overview
4	20 min	Let’s Practice (Lab Walkthrough + Live Q&A)
5	5 min	Next Steps
6		

Housekeeping

- Please keep your microphone muted.
- You are welcome to share your video, or not.
- If you need assistance or have questions, please take advantage of the meeting's moderated chat.
- "Sign In" to Qwiklabs using your **Corporate** email address. If you don't have a Qwiklabs account "Join" and create a free one https://google.qwiklabs.com



What is Cloud Hero

What is Cloud Hero?

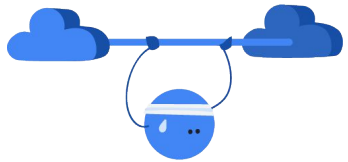
Cloud Hero is a program designed for developer hands-on engagement. Cloud Hero events bring developers together to **learn** and then engage in friendly **competition** against one another in **gamified labs** by using their Google Cloud skills. At its core, a Cloud Hero game is made up of hands-on labs (Qwiklabs) layered with activity-tracking and scoring.

The objective of Cloud Hero is to deliver hands-on training, upskill in Google Cloud solutions, and have fun along the learning journey.

Overview of Hands-on Labs in Infra Skills

Labs in this game

- A Tour of Qwiklabs and Google Cloud
- Creating a Virtual Machine
- Getting Started with Cloud Shell and gcloud
- Kubernetes Engine: Qwik Start



Infra Skills
Overview

Dictionary

cloud

cloud

/klaʊd/

noun

1. **Getting things done using someone else's computers**, especially where someone else worries about maintenance, provisioning, system administration, security, networking, failure recover, etc.

What is Google Cloud Platform?

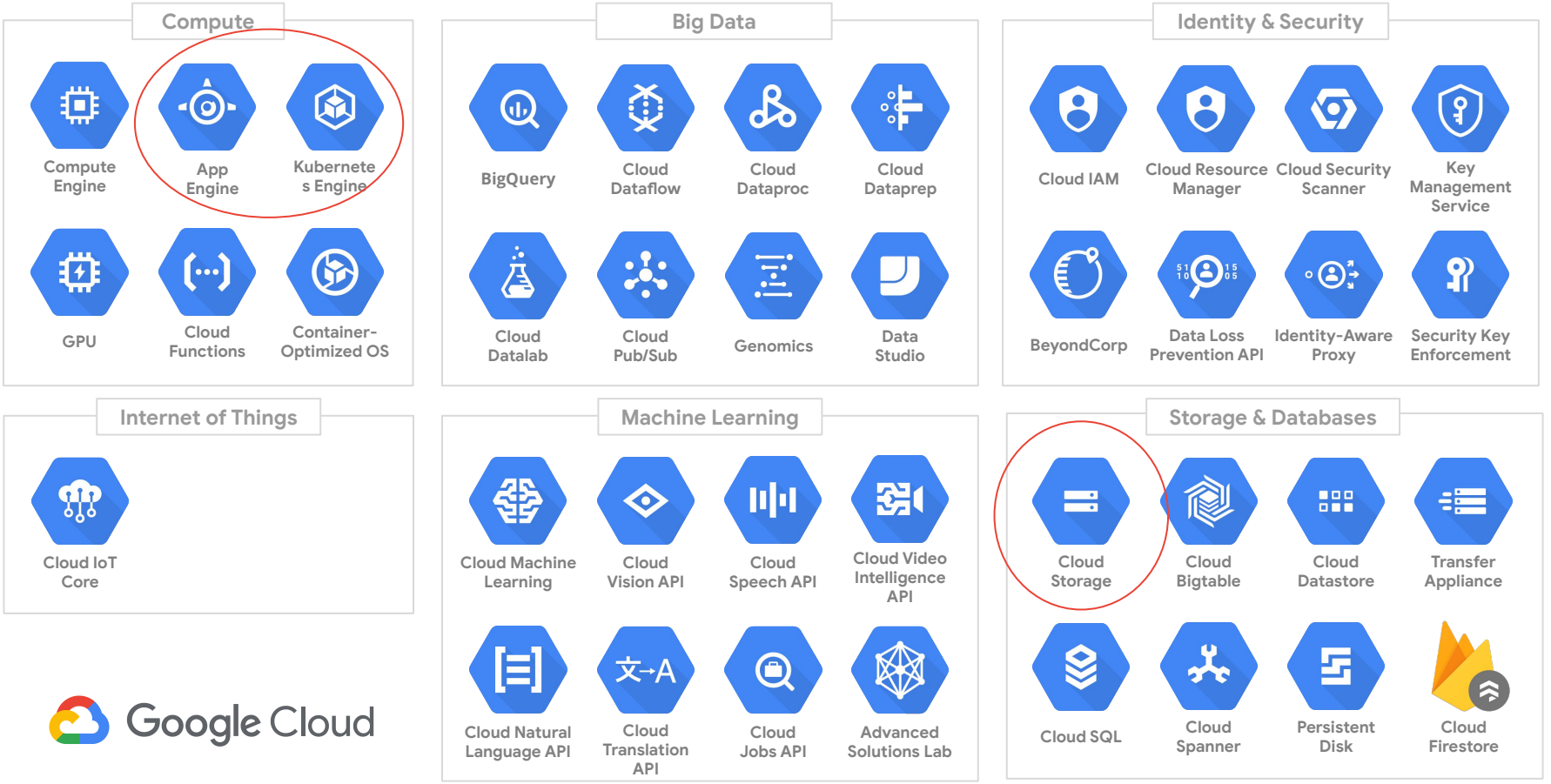
Google Cloud Platform lets you build and host applications and websites, store data, and analyze data, all on Google's highly scalable and reliable computing infrastructure.

“Organize the world’s information and make it universally accessible and useful.”

Google


Cloud Hero

Google Cloud Platform Products



Google Cloud

App Engine

- **Deploy web apps** and mobile backends to the Cloud
- “Platform as a service(PaaS)” product
- Managed application platform that lets you focus on your code
- Autoscaling, load balancing, traffic splitting for A/B testing, error reporting, and more!

App Engine

- 7 programming languages fully supported: Python, Node.js, Java, Go, PHP, .NET, and Ruby
- Can use a Custom Runtime for other programming languages

App Engine - Example Python Flask App (main.py)

```
from flask import Flask

app = Flask(__name__)

@app.route('/')
def hello():
    return 'Hello World!'

if __name__ = '__main__':
    app.run(host='127.0.0.1', port=8080, debug=True)
```

Import the Flask web framework library

Initializes our Flask web application

This route handler defines what happens when a user visits the root URL of the website (i/e google.com)

This code allows us to run our application locally using python main.py

Google Cloud

App Engine - Example Python Flask App (app.yaml)

```
runtime: python37
```

Specifies that we want Python version 3.7 for our App Engine runtime

App Engine - Example Python Flask App (requirements.txt)

```
Flask==1.1.1
```


List out different Python libraries / dependencies we need for our application.

We can specify the desired library version (if we don't, it gives us the latest version).

Here we ask for the Flask library.

App Engine - Example Python Flask App (Deployment)

```
gcloud app deploy
```

We use the *gcloud* command line tool to deploy to App Engine.

We run this command from our command-line interface (like Terminal) to package up the files in our current directory and deploy them to App Engine.

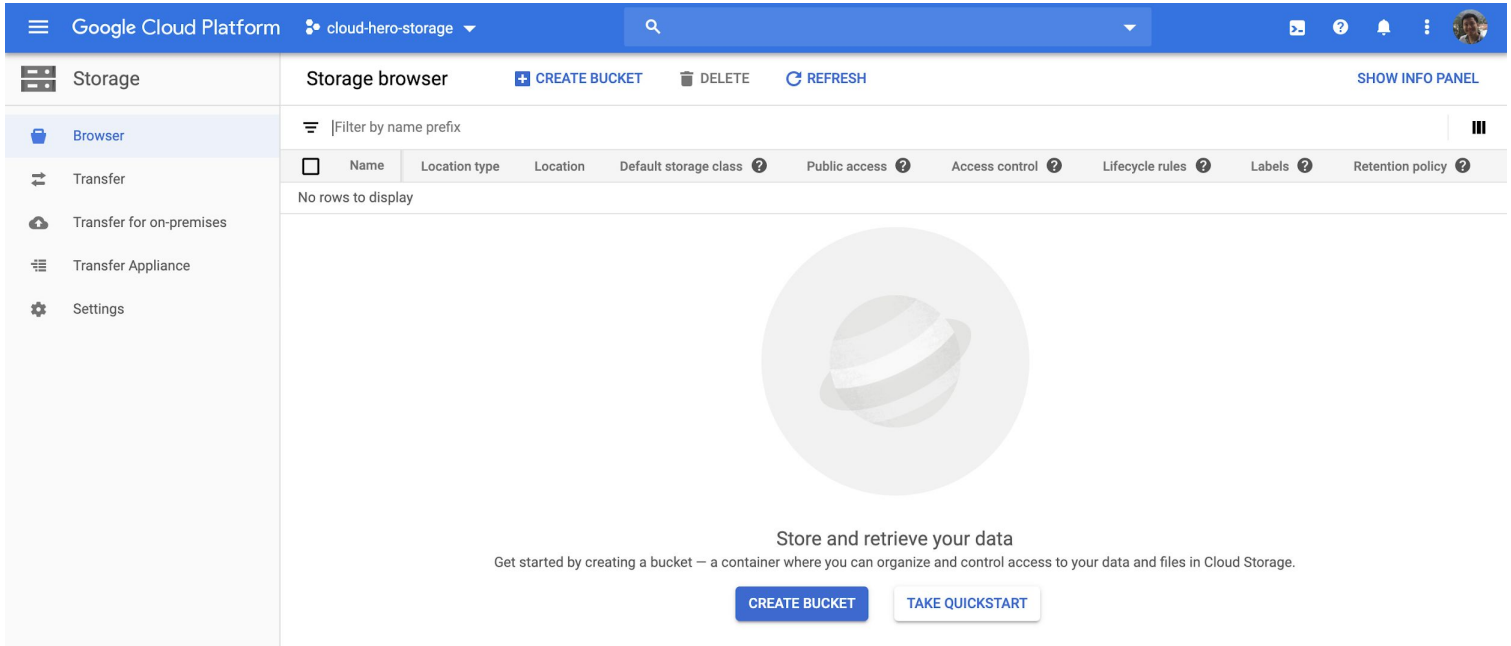
App is deployed to a www.YOUR_PROJECT_ID.appspot.com URL.

Google Cloud

Cloud Storage

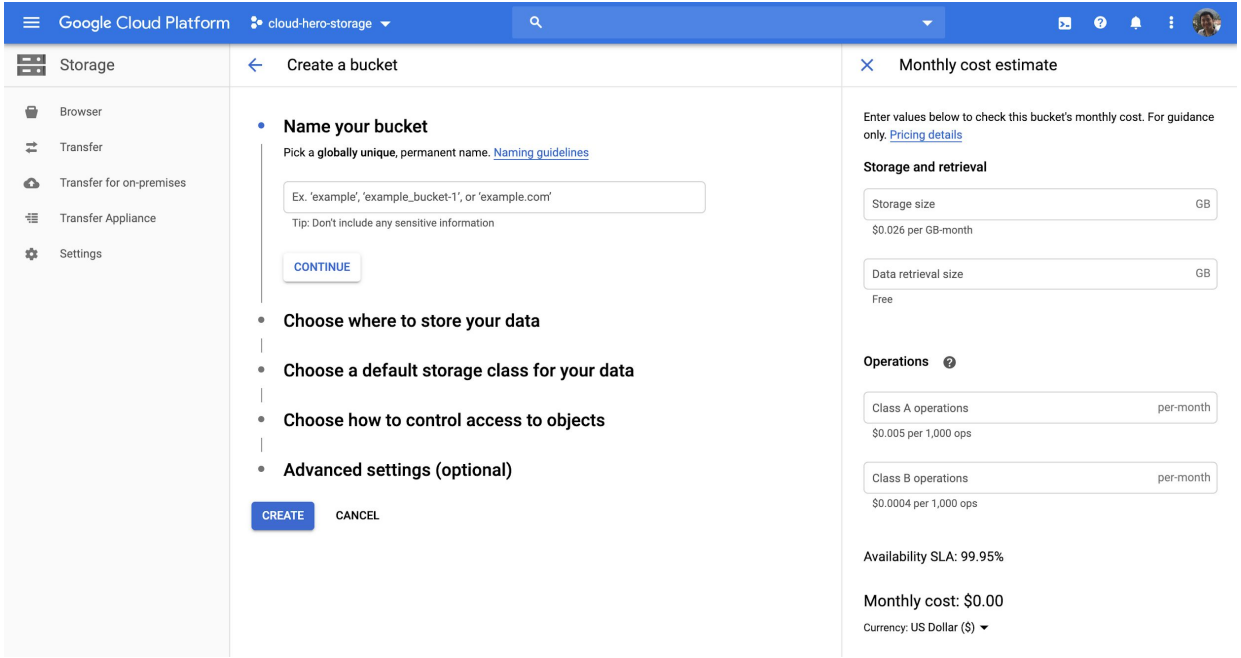
- Store file objects in the Cloud
- Designed for unstructured data (i/e images, text files, audio files, video files)
- Accessible through Google Cloud Console, gsutil command line tool, and programmatically with client libraries

Cloud Storage - Google Cloud Console



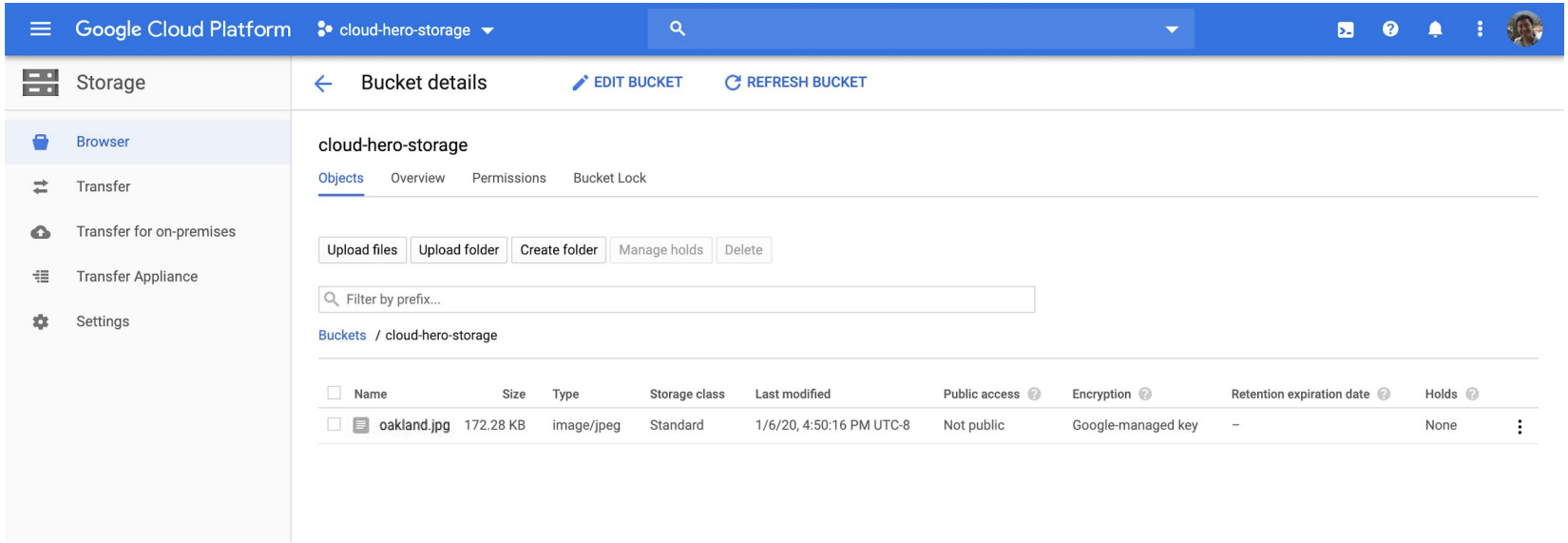
Google Cloud

Cloud Storage - Creating a Bucket

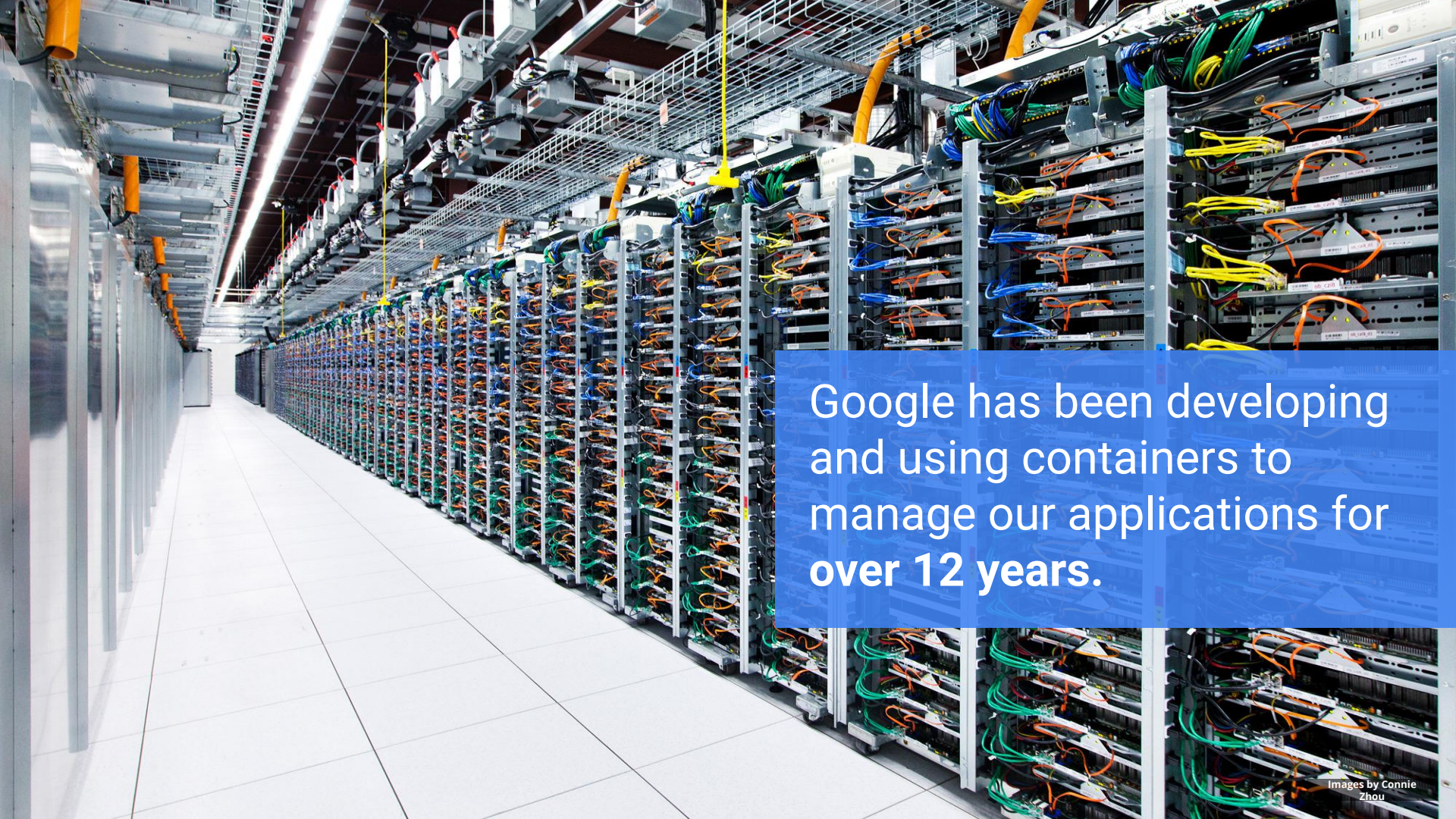


Google Cloud

Cloud Storage - View of a Bucket



Google Cloud


Google has been developing and using containers to manage our applications for **over 12 years.**
Images by Connie Zhou

Everything at Google runs in containers:

- Gmail, Web Search, Maps, ...
- MapReduce, batch, ...
- GFS, Colossus, ...
- Even **Google's Cloud Platform:** our VMs run in containers!

We launch several **billion** containers **per week**

Shipping Containers At Clyde, by Steve Gibson

Kubernetes

Greek for *“Helmsman”*; also the root of the words *“governor”* and *“cybernetic”*

- Manages container clusters
- Inspired and informed by Google’s experiences and internal systems
- Supports multiple cloud and bare-metal environments
- Supports multiple container runtimes
- **100% Open source**, written in Go

Manage applications, not machines

Kubernetes Engine

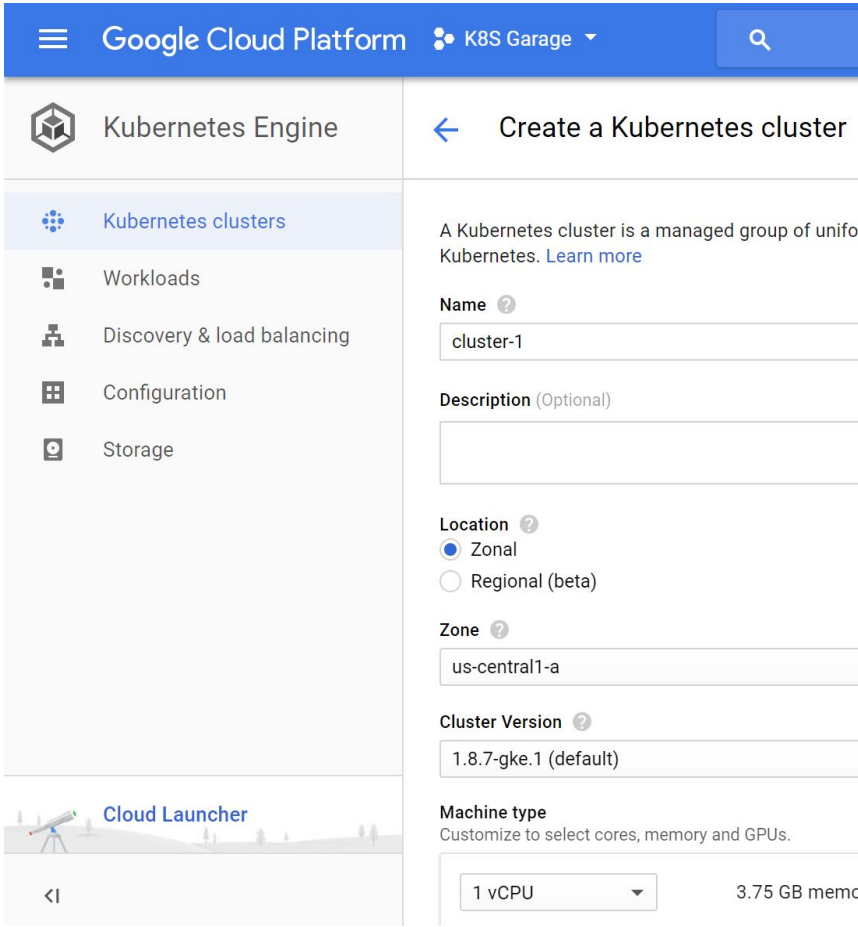
- Managed environment for deploying containerized applications
- Builds on Google's experience running services like Gmail and YouTube in containers for 12+ years
- Kubernetes Engine environment: multiple machines (Google Compute Engine instances) grouped as container clusters

Kubernetes the Easy Way

Start a cluster with one-click

View your clusters and workloads in a single pane of glass

Google keeps your cluster up and running

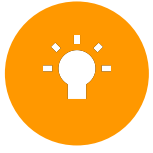


Why do customers choose GKE?

Quick Up and Running

Simplified Management

Optimized workloads



Scale to any work load

Open

Google remains the **largest contributor to Kubernetes** and is seen as the industry leader due to our investment and launch of ongoing new features leveraging Google infrastructure

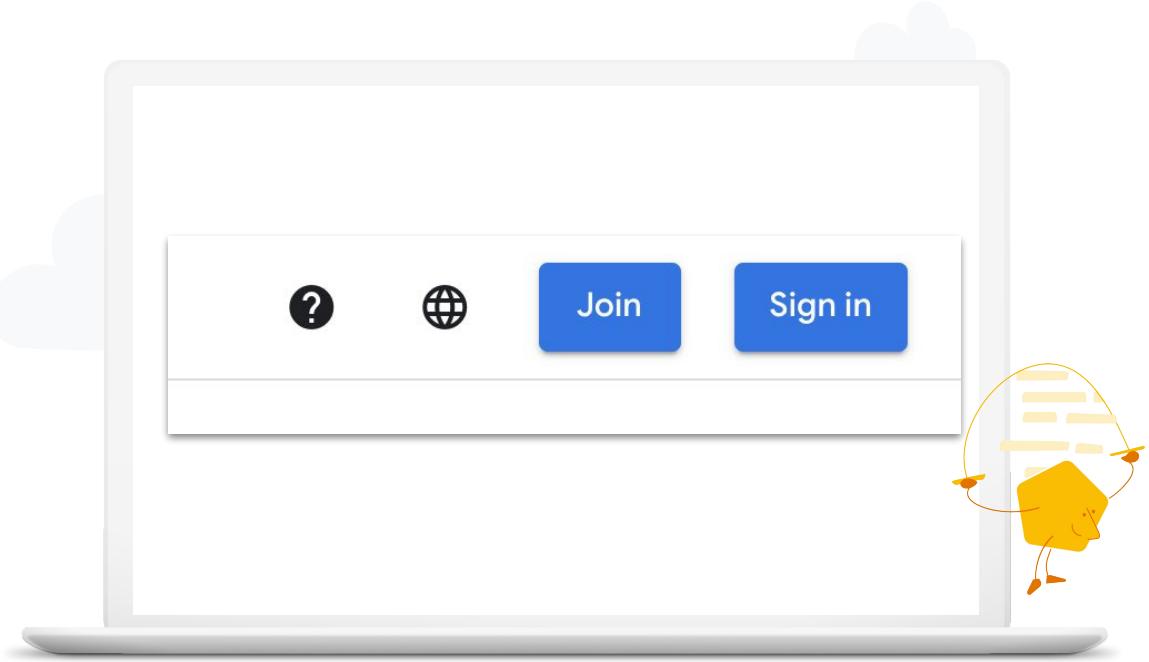
Let's Practice

Join or Sign into Qwiklabs

https://google.qwiklabs.com/ .

Then click Join to create a new account or Sign in to an existing account.

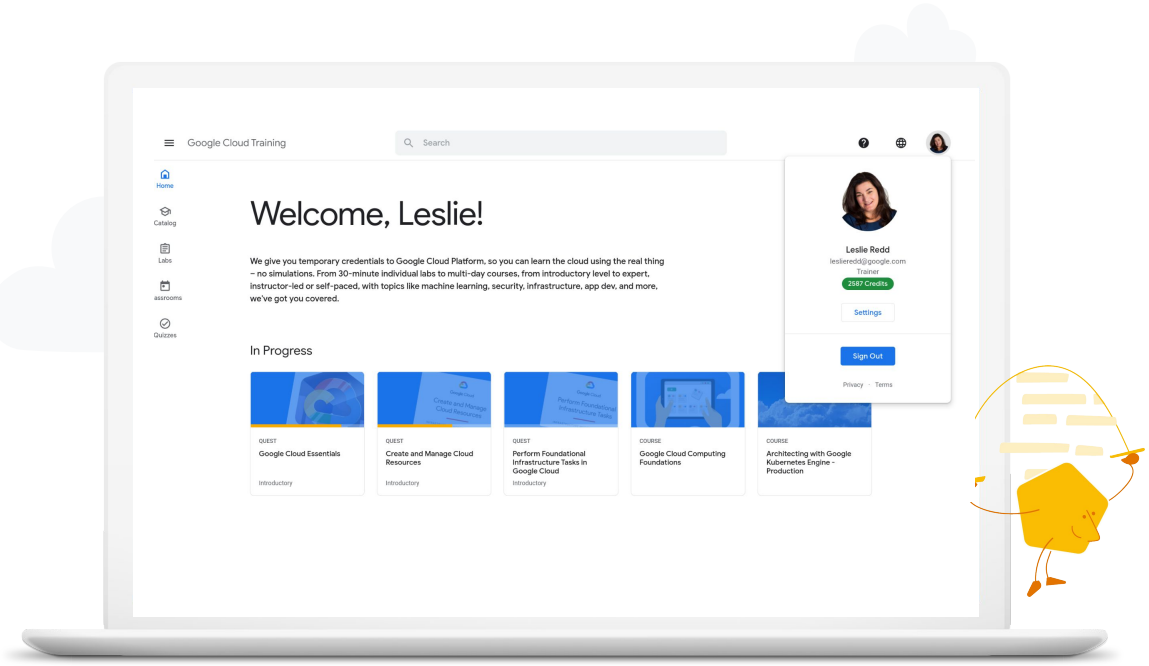
Please use your Corporate Email.



Changing Player Name

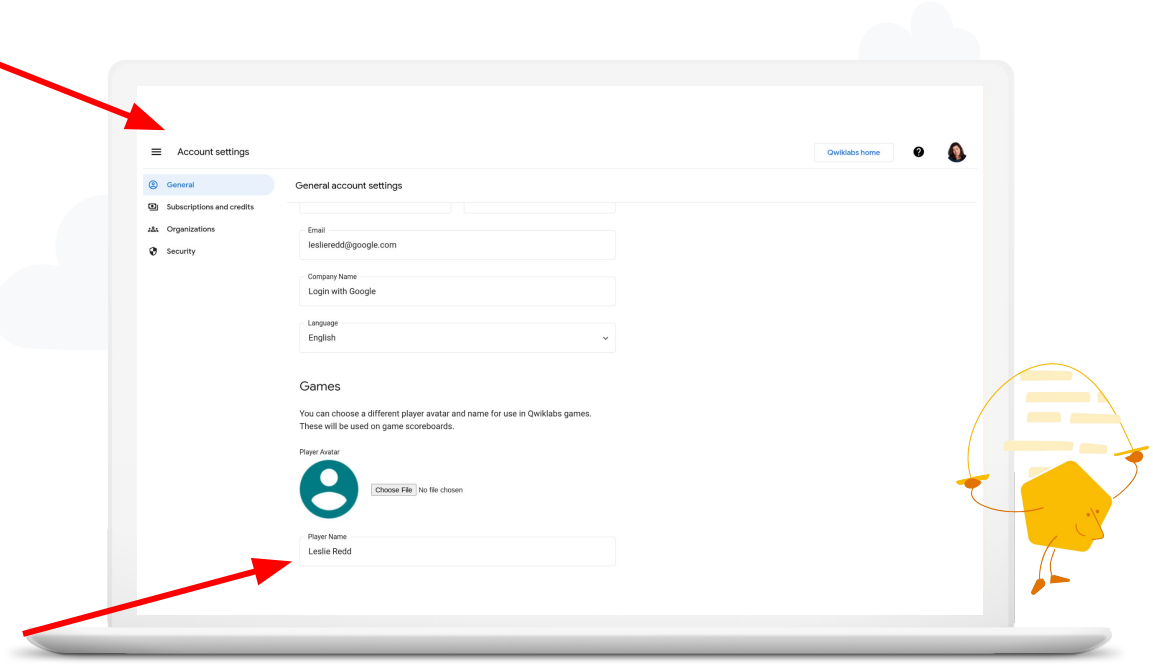
Now, that you are logged in.

click the player icon in top right corner then click **Settings**



Changing Player Name

In **Account settings** page, go to **Game** - **Player Name**. Enter your first and last name, if you want, and click **Update Settings** at the bottom of the page.

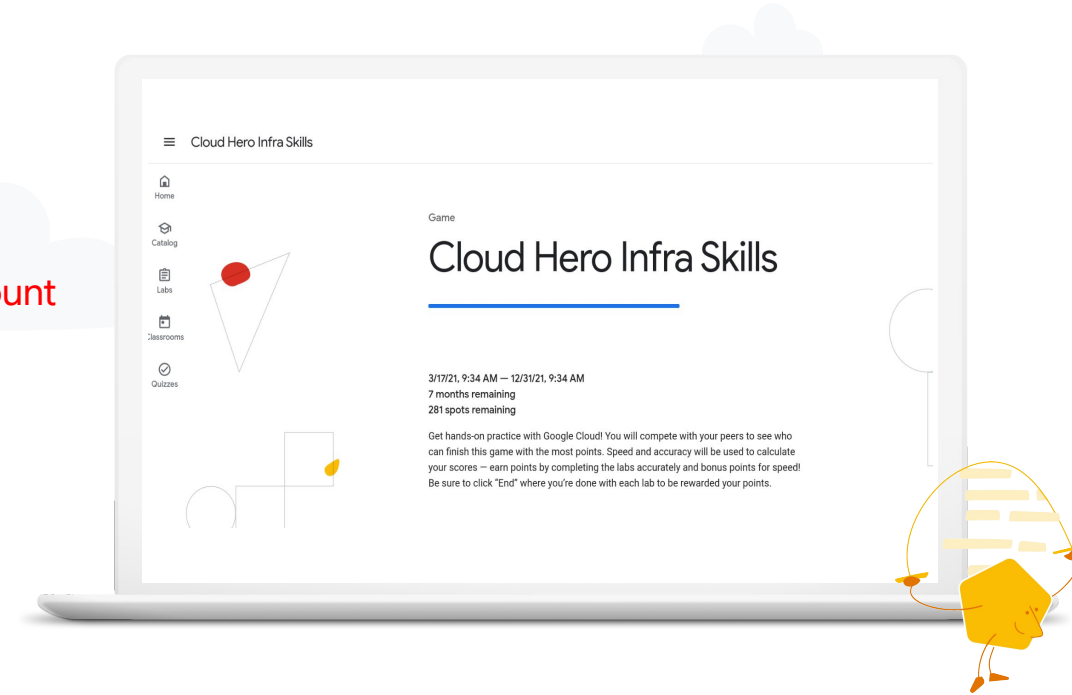


Let’s get started!

Once you’re logged into your Qwiklabs account

please re-enter the link in browser:

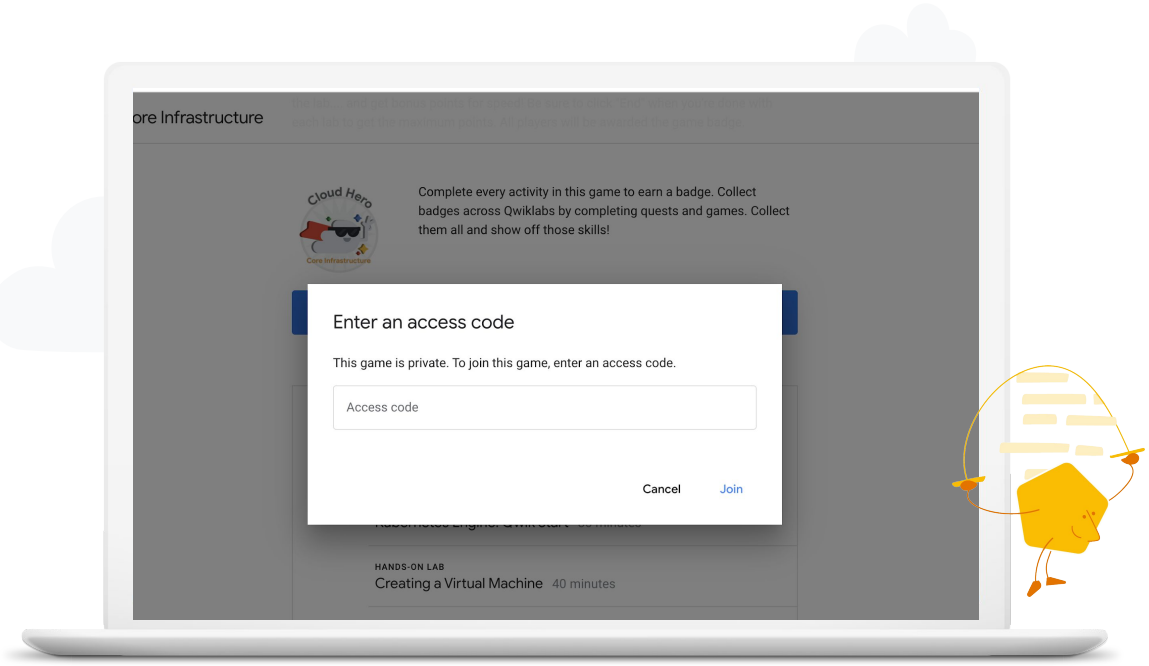
bit.ly/Commerz



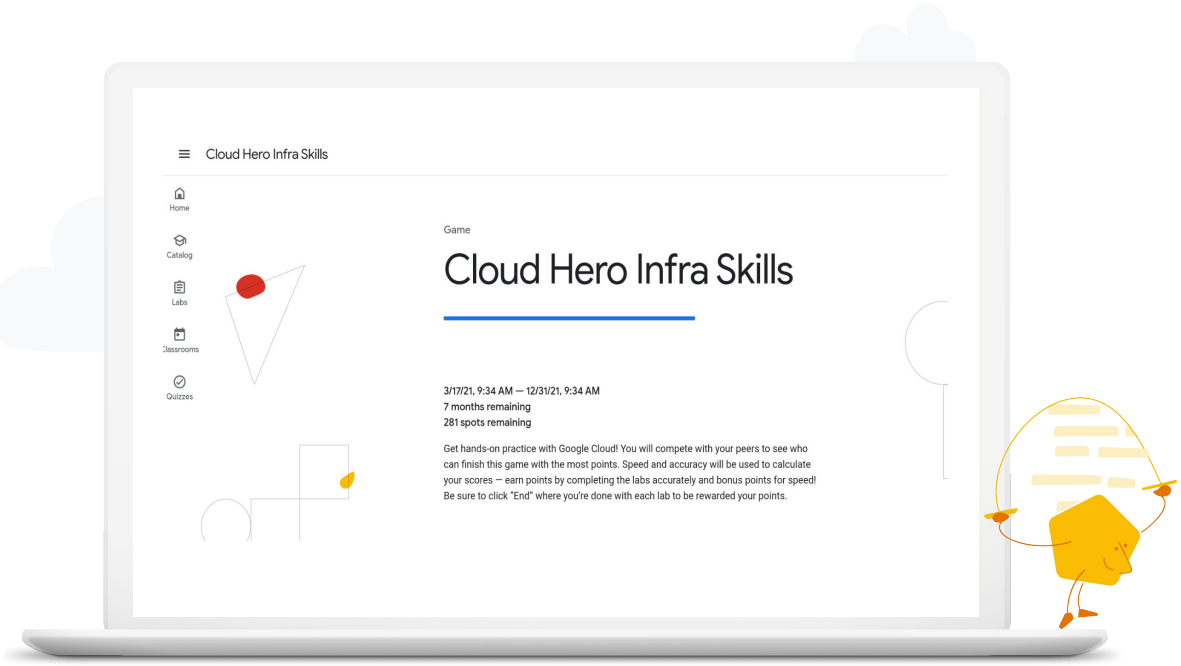
Your access code is:

ch1-comminfra-019

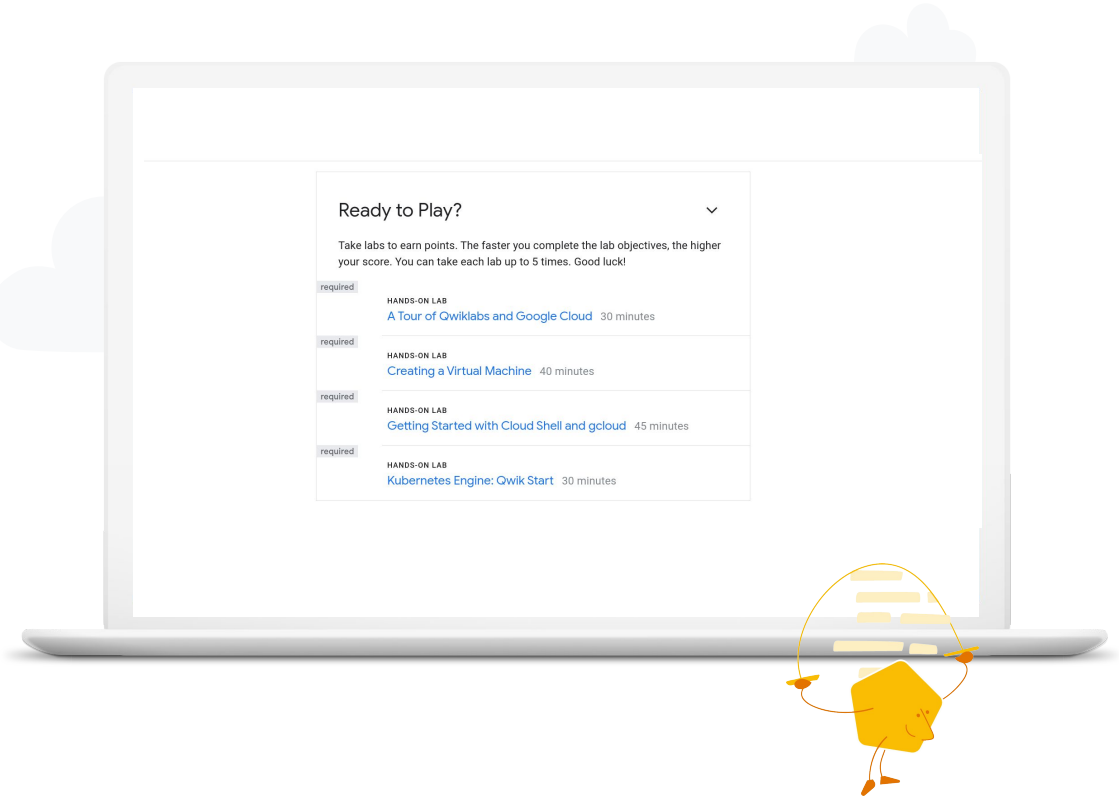
Enter it to join!



We will go through part of the first lab.

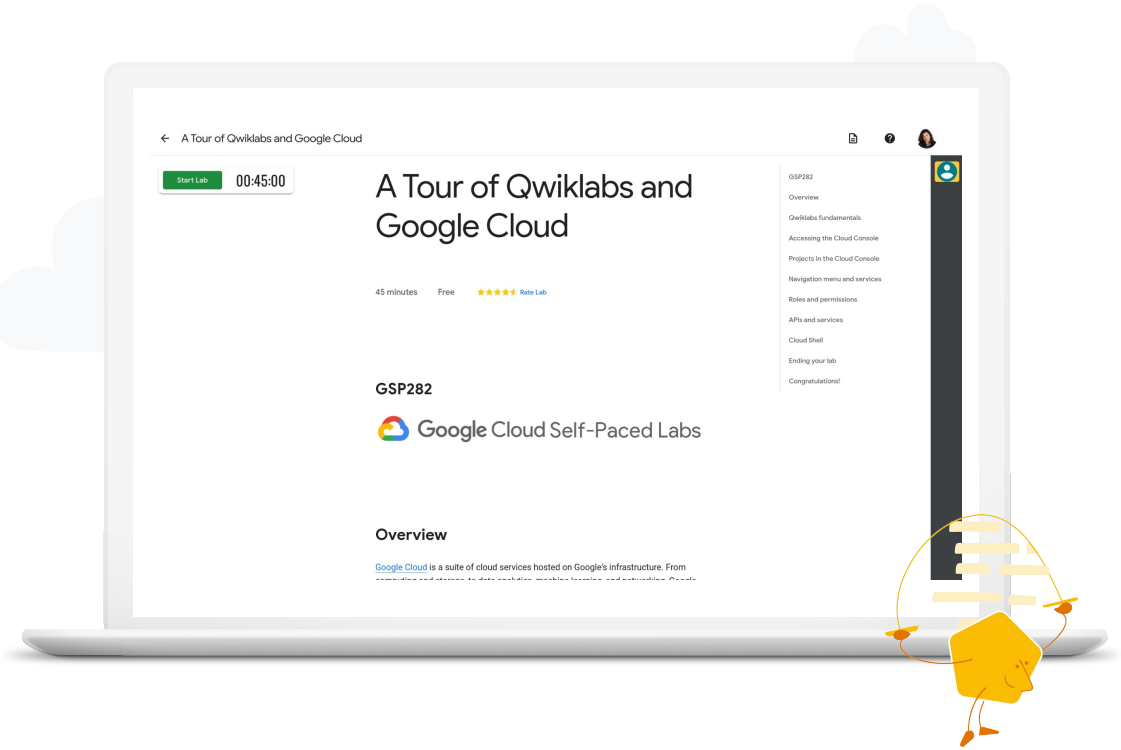


Click on the first lab.



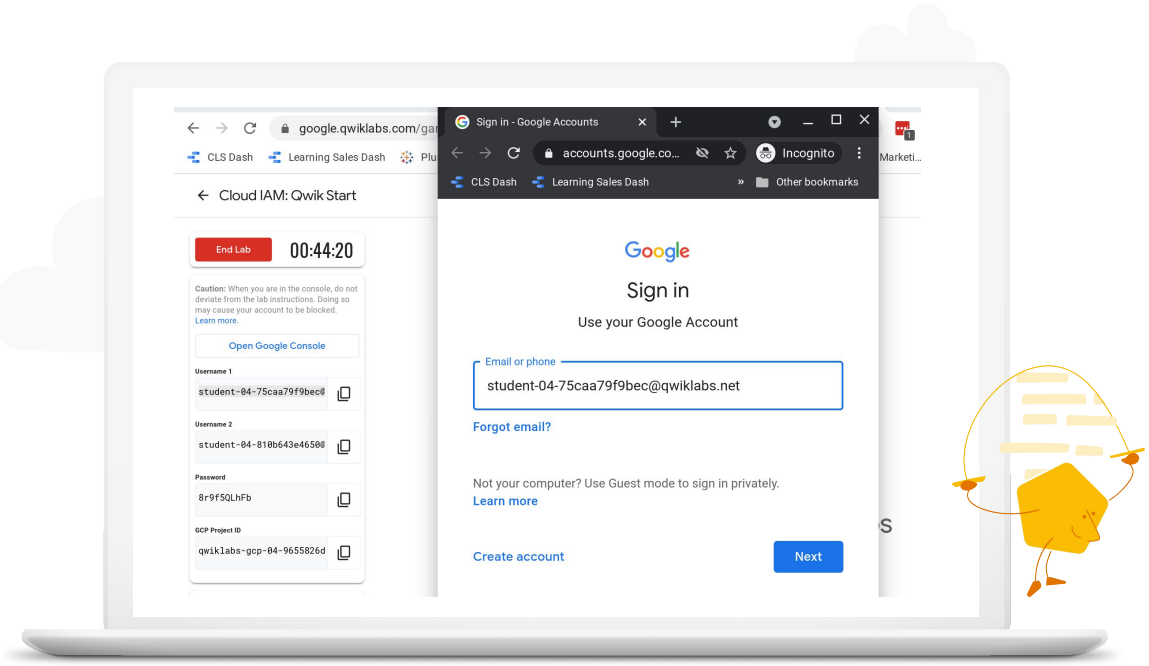
Pro Tip!

Read through lab before pressing Start.

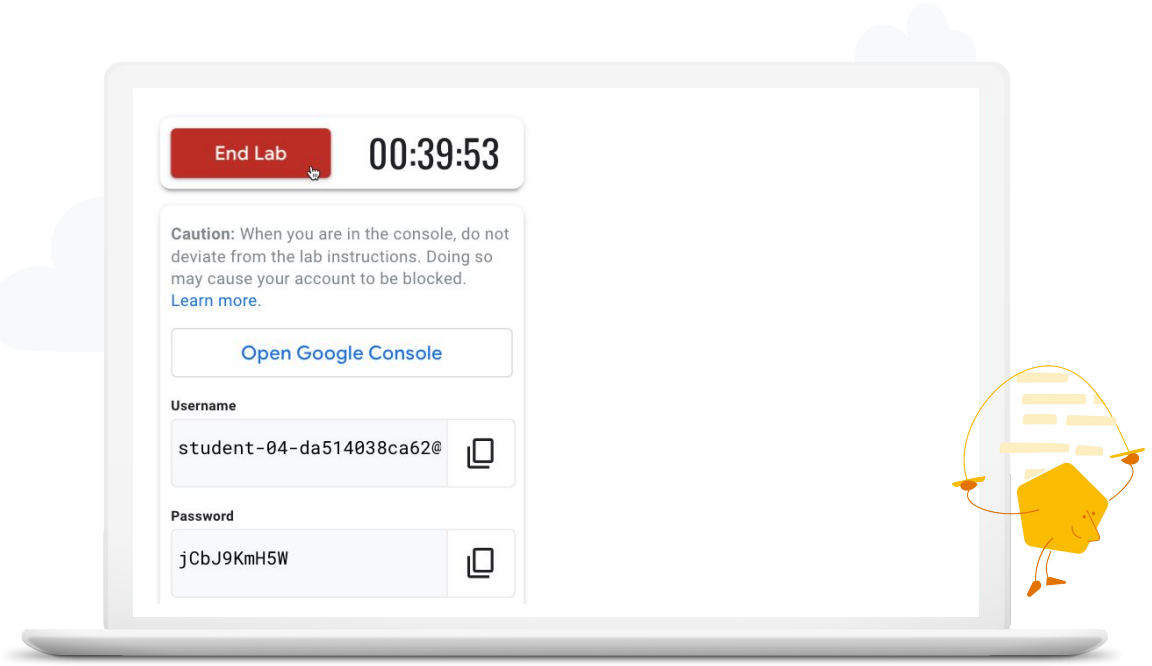


Once you press Start, Open Google Console in an **Incognito** or **Privacy Window.**

For each lab, remember to use the new username, password, and project ID that Qwiklabs assigns you.



Make sure to press End Lab once you're done with a lab



Let’s Play and Compete

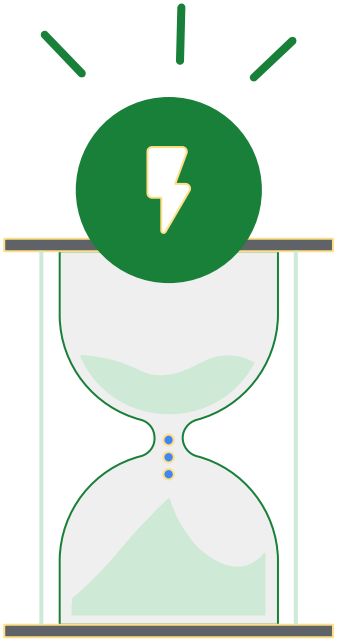
Timing and Scoring

Points are earned by completing the steps in the lab.... and bonus points are earned for speed!

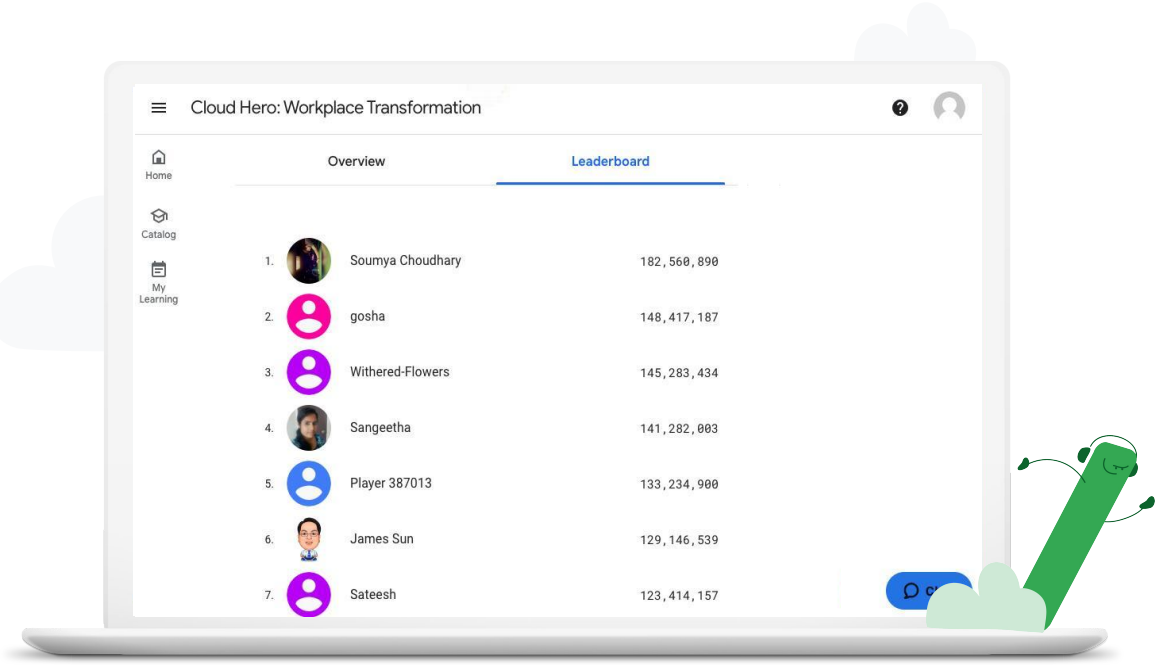
You can redo each of the labs up to 5 times. **Your best score will count.**

Be sure to complete each lab by selecting the END option to get the maximum points.

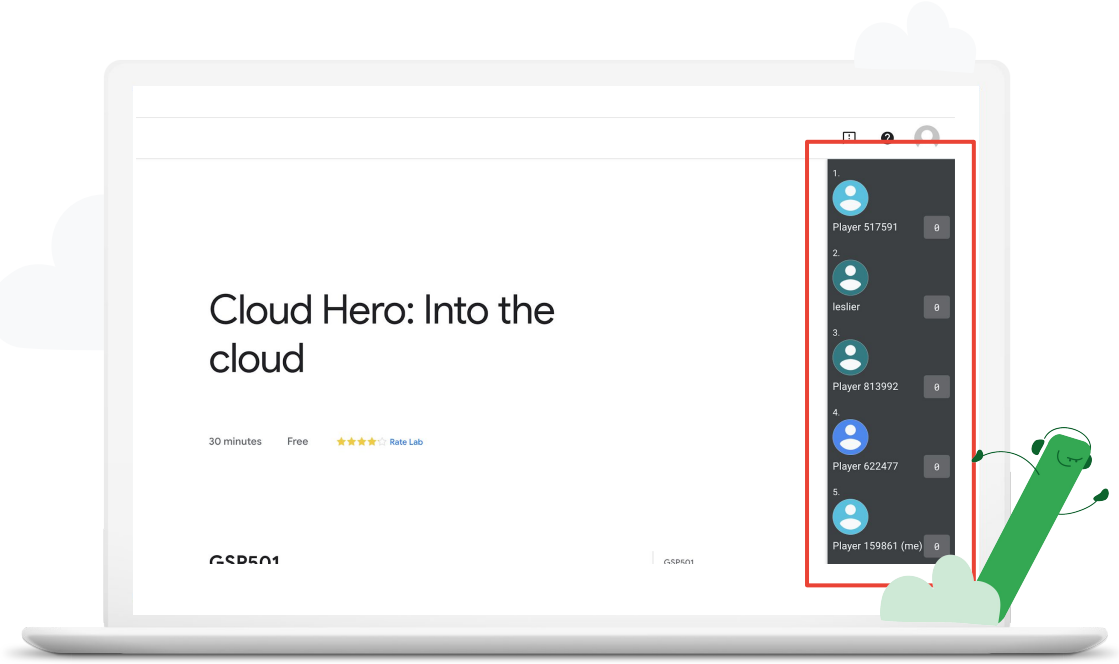
Labs usually have checkpoints. To get maximum points you need to have all the checkpoints green



See where you rank on the Leaderboard!

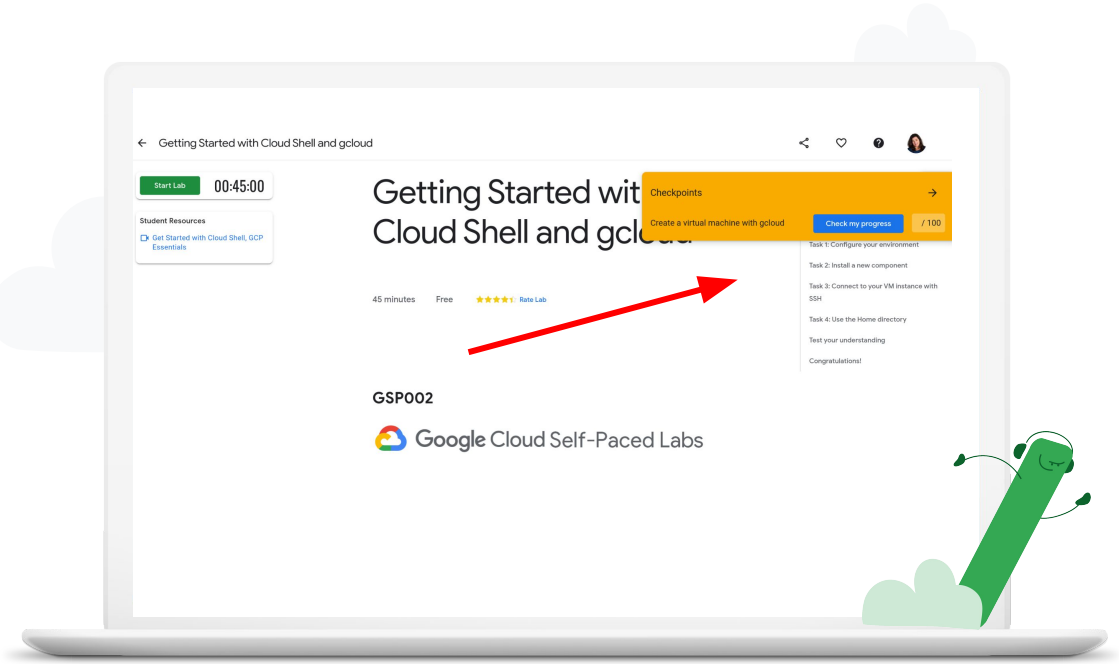


Track your progress and your score



Pro Tip!

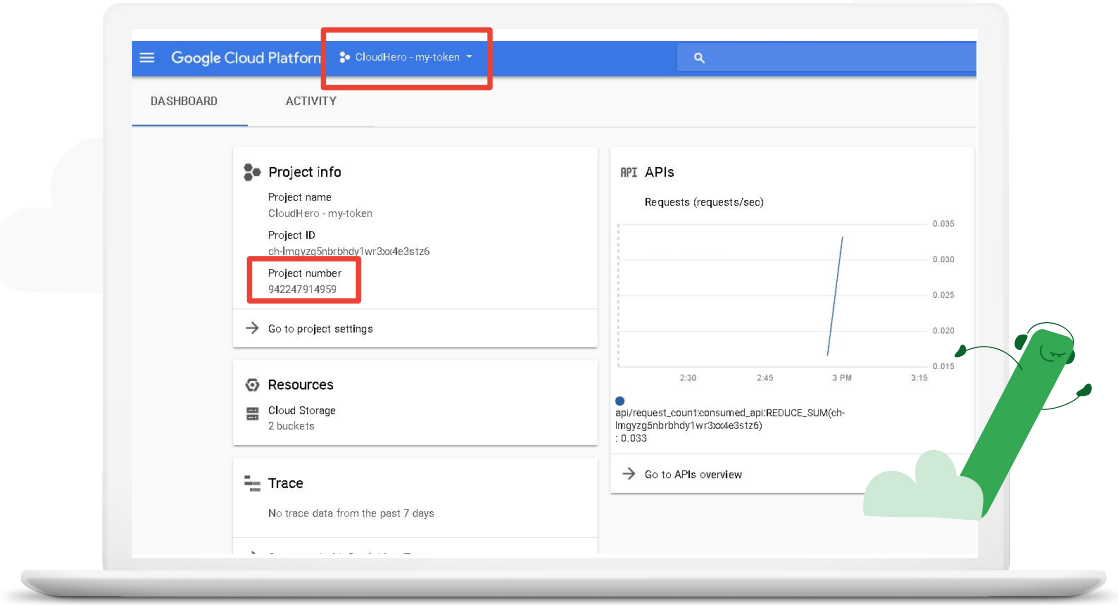
Checking Progress: Click on the score box in the upper right



Pro Tip!

Cloud Project Challenge

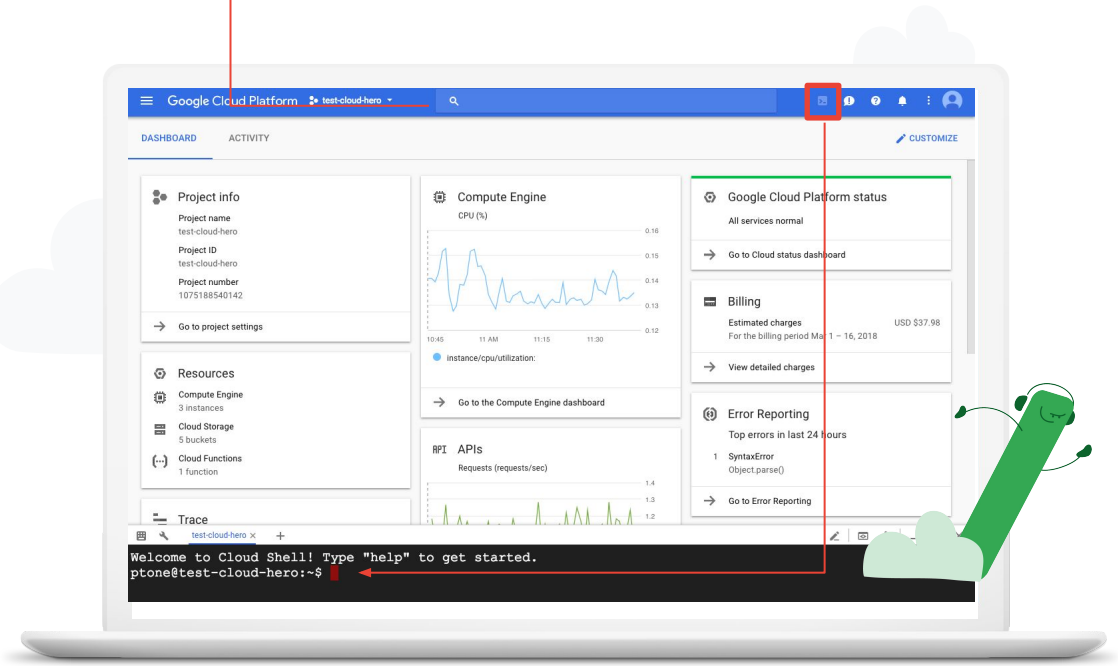
Project Number:
12-digit number



Pro Tip!

Cloud Products and Services

Quickly jump to products and services

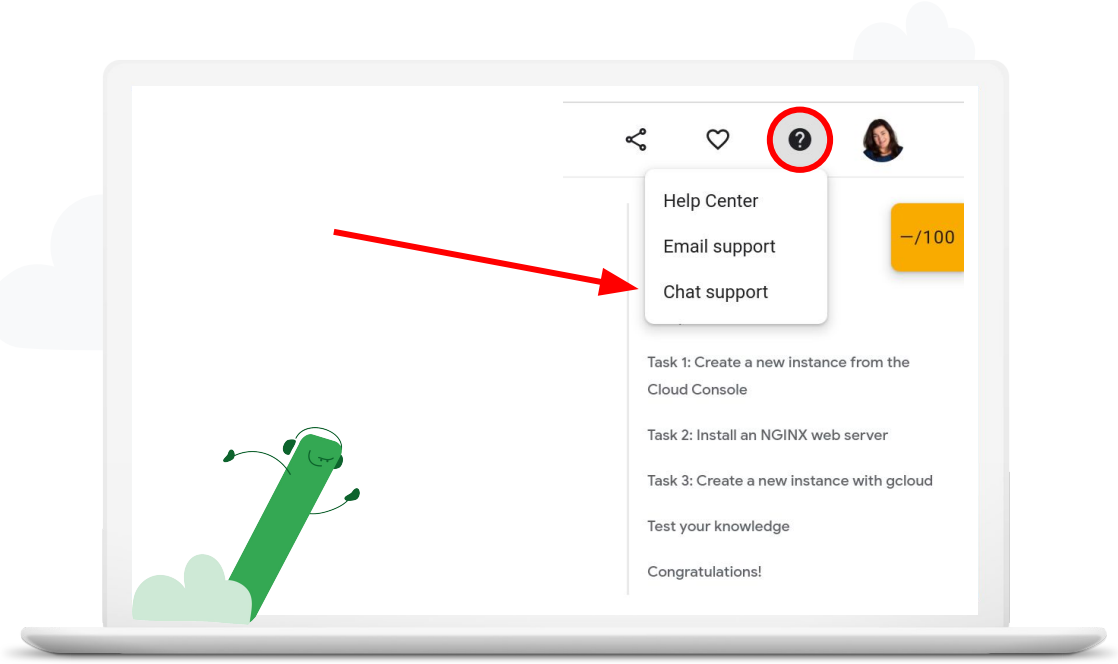


Need Help?

1) There is online support available 24/7 for Qwiklabs through Chat

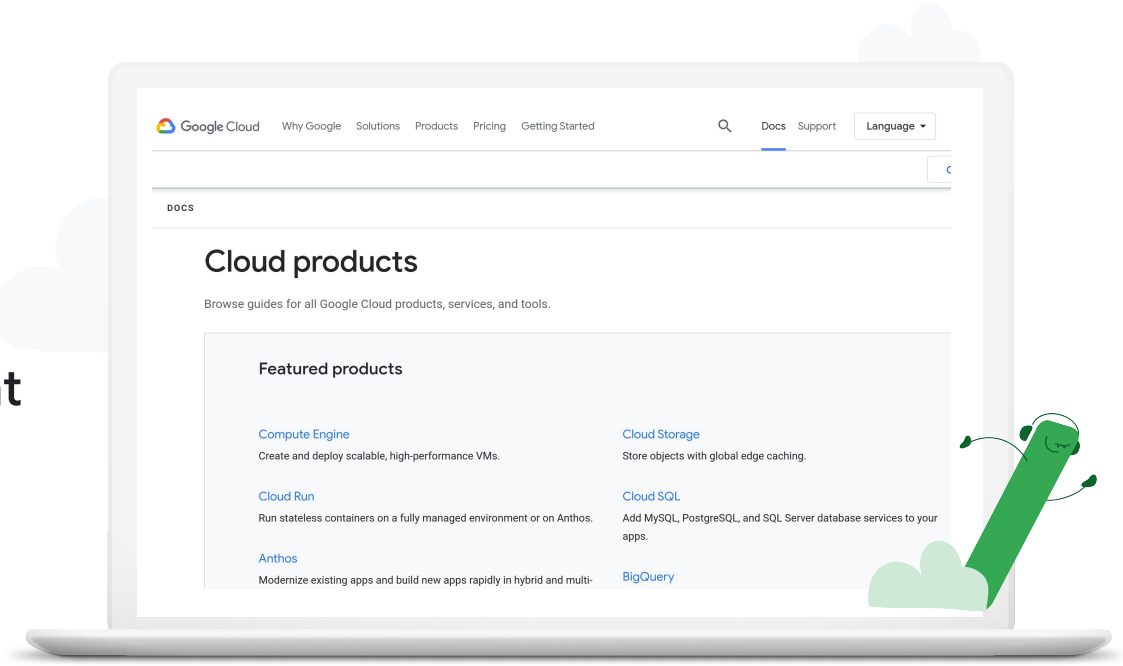
2)Email [eddiaz@google.com, johellwig@google.com] directly if you have any more questions

Look at the top right corner of your screen



Need Help?

3) Google it! Review support documentation at cloud.google.com/docs

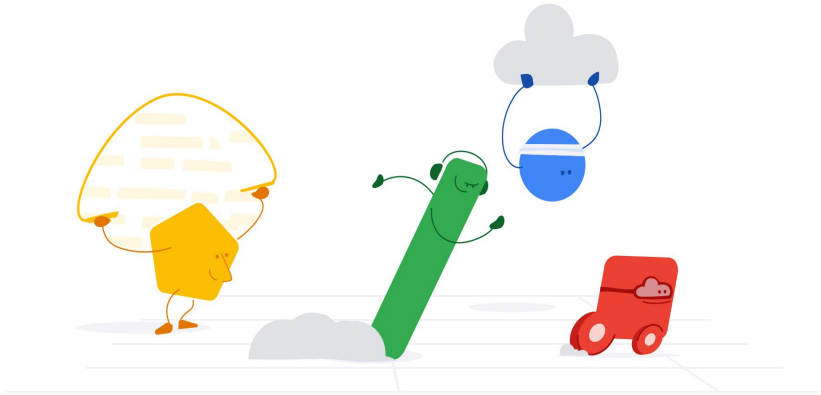


Event Wrap-up

Let's Play!
Put your skills to the test!

Here is the link:
bit.ly/Commerz

The access code is
ch1-comminfra-019



Game ends at midnight August 5 BST. Winners will be announced August 6!

Winners!
Top 3 on the leaderboard.

Thank you for participating in our Cloud Hero Event!

So, how was it? Please fill out the survey when you receive it.

Cloud Hero

Thank You.