Google SQL BigQuery Training

From Zero to Expert

Trainer

Jorge Arturo Parrado Ruiz

MS of Business Information Technology

https://www.linkedin.com/in/jorge-arturo-parrado-ruiz/

Course map

Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5
What's the Google Cloud Platform?	Big Data is a new reality	The power of the cloud data warehouses	A powerful new solution to exploit data!	BigQuery Fundamentals

Chapter 6	Chapter 7	Chapter 8	Chapter 9
All you need to know about SQL	What's the most important?	Tips and tricks!	Machine learning at the reach of your hand

BigQuery From Zero to Expert

Course objectives

Chapter	Objectives
What’s the Google Cloud Platform?	Describe GCP around data and the benefits of working with GCP.
Big Data is a new reality	Discover the opportunities you have in your organization through data.
The Power of Data Warehouse	Discuss the advantages of data warehouses.
A powerful new solution to exploit data!	Describe how cloud data warehouses are change the world.
BigQuery Fundamentals	Discover all the features that BigQuery has for your. Interface walkthrough, datasets, objects, data types, import/export and more.
All you need to know about SQL	SQL statements, conditionals, grouping data, analytic functions, operations, relations, aggregations, types of views, store procedures, UDF.
What’s the most important?	Discuss about performance and costs in bigquery.
Tips and tricks!	Discover the tuning technics, partitioning, clustering, denormalization/normalization.
Machine learning at the reach of your hand	Discover the possibilities of building machine learning models in BigQuery using SQL.

Hands-on labs

- 5 hands-on labs across the course
- 1 final challenge labs
- Hosted on Qwiklabs
- Access to a set of resources, in a clean environment with required permissions, for a fixed amount of time at no additional charge

Course map

Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5
What's the Google Cloud Platform?	Big Data is a new reality	The power of the cloud data warehouses	A powerful new solution to exploit data!	BigQuery Fundamentals

Chapter 6	Chapter 7	Chapter 8	Chapter 9
All you need to know about SQL	What's the most important?	Tips and tricks!	Machine learning at the reach of your hand

BigQuery From Zero to Expert

Chapter 1

What’s the Google Cloud Platform?

You will learn...

What Google Cloud Platform is and discover why many of the world's leading companies are choosing Google Cloud

- Detail the advantages of taking advantage of the cloud
- Discuss general architecture
- Available and important resources to learn about GCP

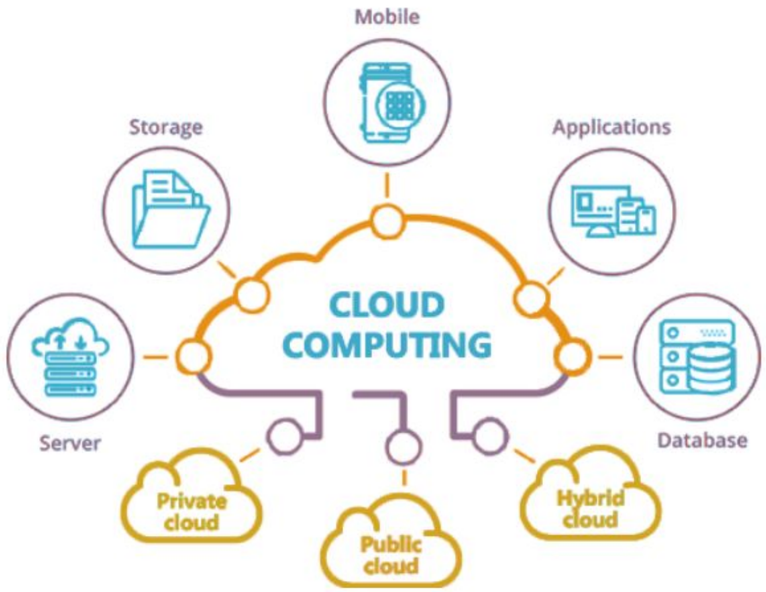
Agenda

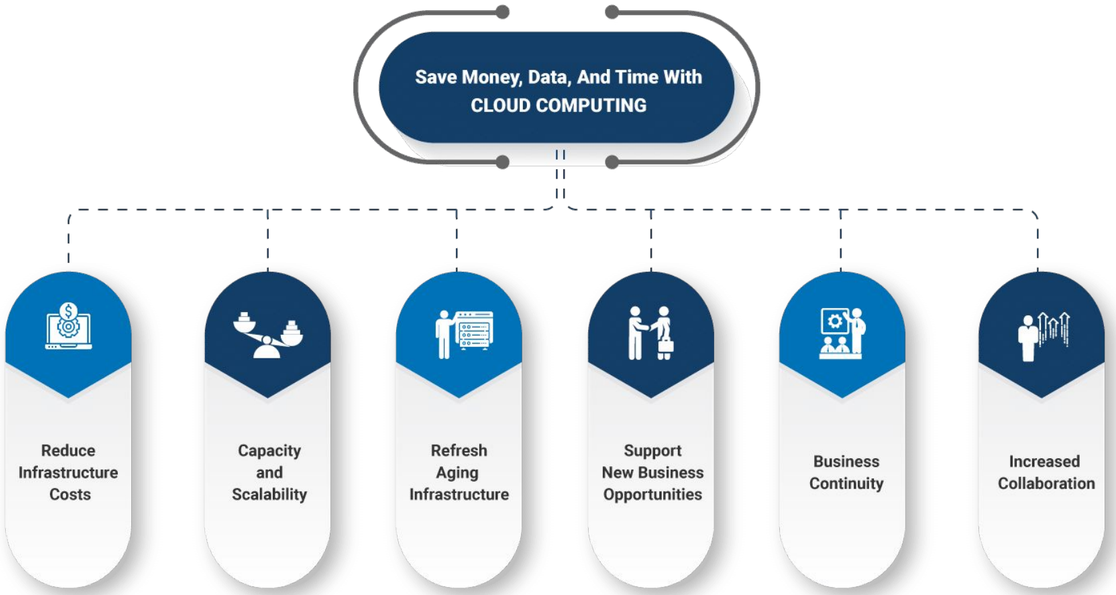
- Cloud computing
- Google cloud platform
- Type of services and costs
- Google Cloud Architecture
- Qwiklabs - Lab 1
- Quiz
- Summary

Agenda

- Cloud computing
- Google cloud platform
- Type of services and costs
- Google Cloud Architecture
- Qwiklabs - Lab 1
- Quiz
- Summary

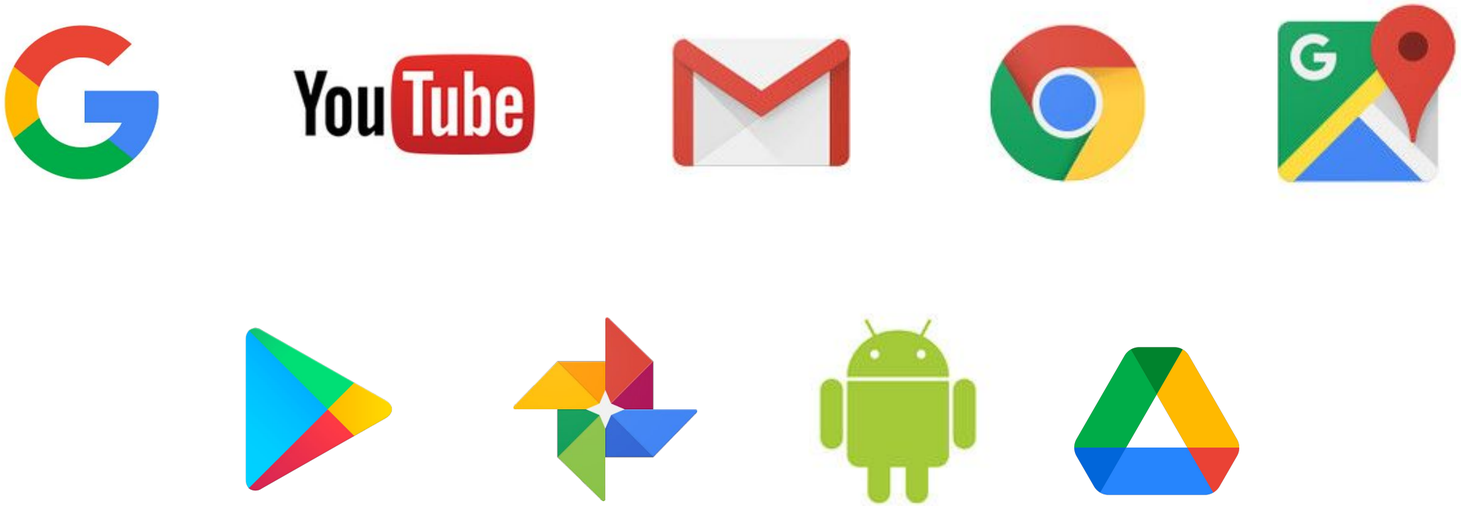
Principles


Mobile
Storage
Applications
CLOUD
COMPUTING
Server
Database
Private cloud
Public cloud
Hybrid cloud


Save Money, Data, And Time With
CLOUD COMPUTING
Reduce Infrastructure Costs
Capacity and Scalability
Refresh Aging Infrastructure
Support New Business Opportunities
Business Continuity
Increased Collaboration

Top cloud providers

Google - Nine products with over one billion users each!



To get here, new ways of doing things were needed...

This is big data

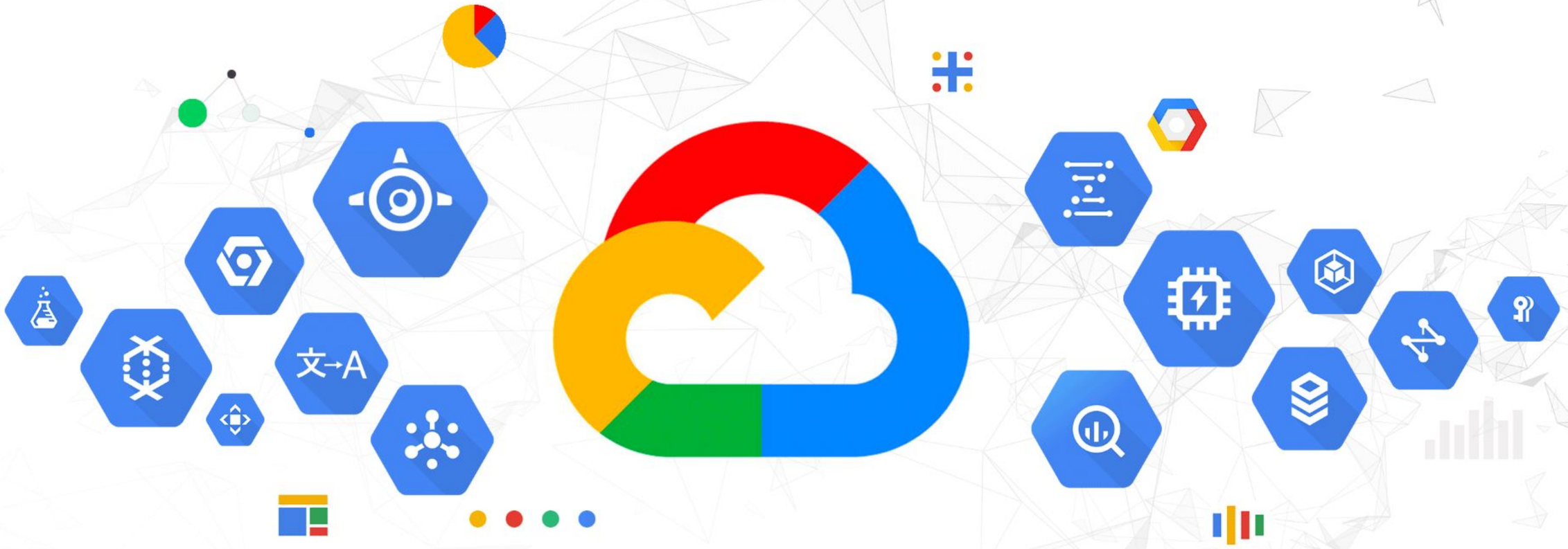
1.2 billion photos and videos are uploaded to Google Photos every day.

Total size of more than **13 PB** of photo data.

1 PB or **400 hours** of videos uploaded per minute.

Agenda

- Cloud computing
- Google cloud platform
- Type of services and costs
- Google Cloud Architecture
- Qwiklabs - Lab 1
- Quiz
- Summary

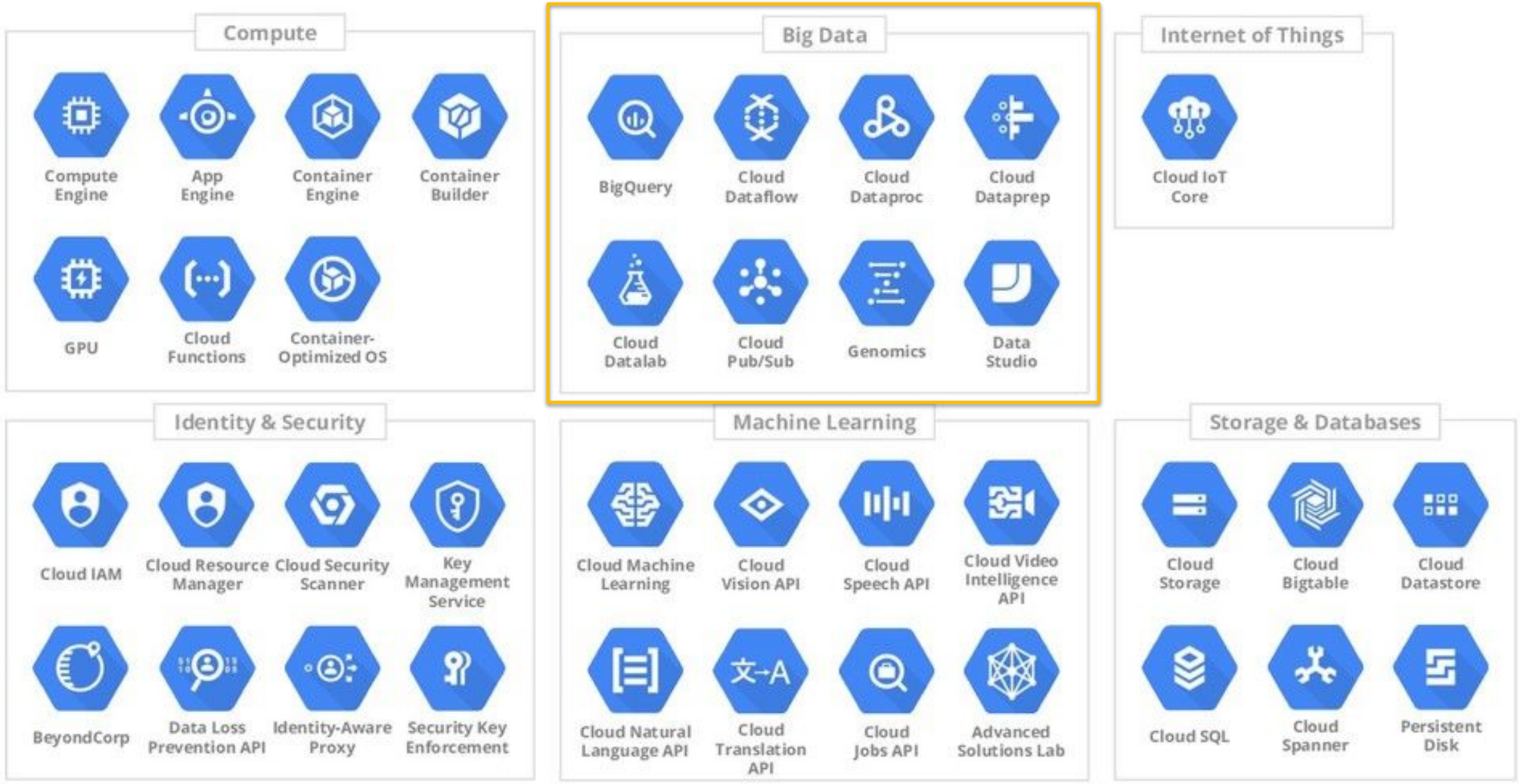

文→A

Google Cloud Platform

Key Takeaways:

- Facilitate users to access, manage and use the tools they need via a web-interface
- Provide flexibility and choice to use the services with a different types of resources to create the infrastructure they need
- Users can create projects via GCP console and manage the permissions

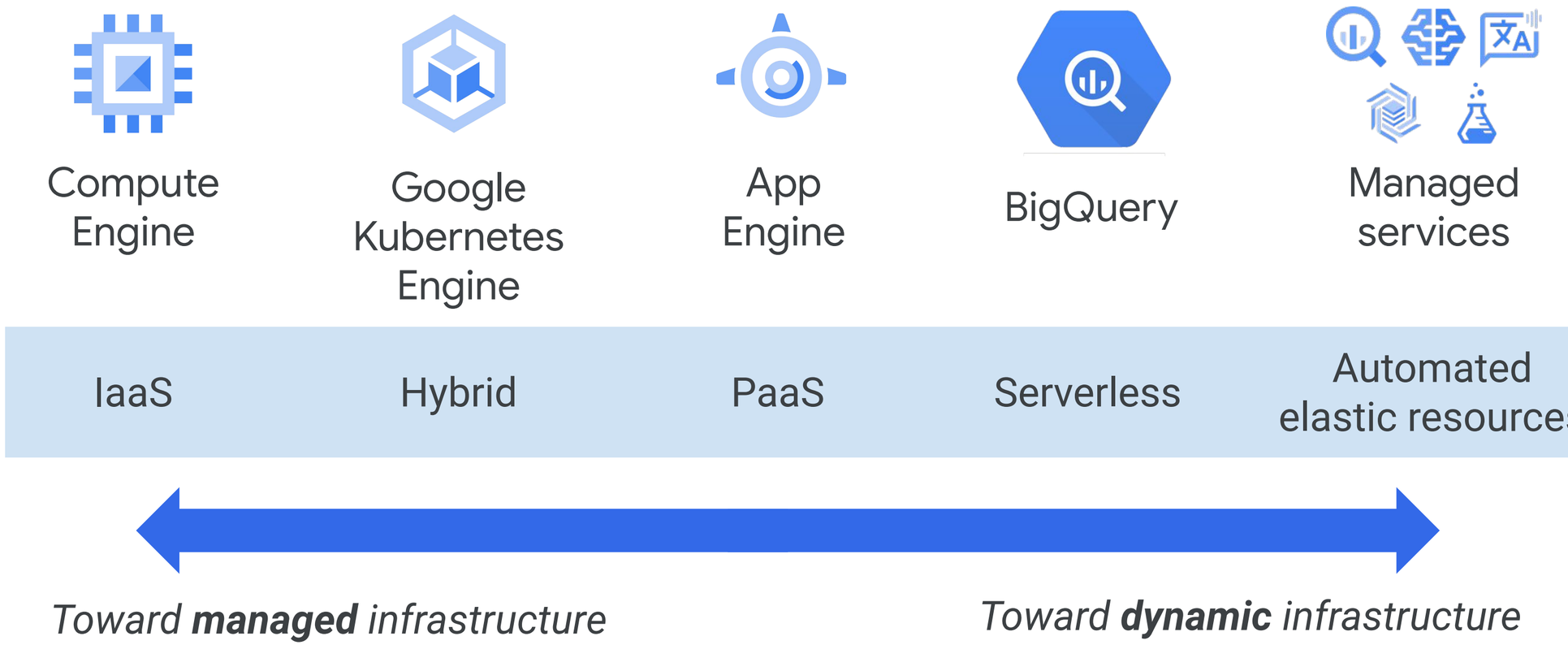
Google Cloud Platform



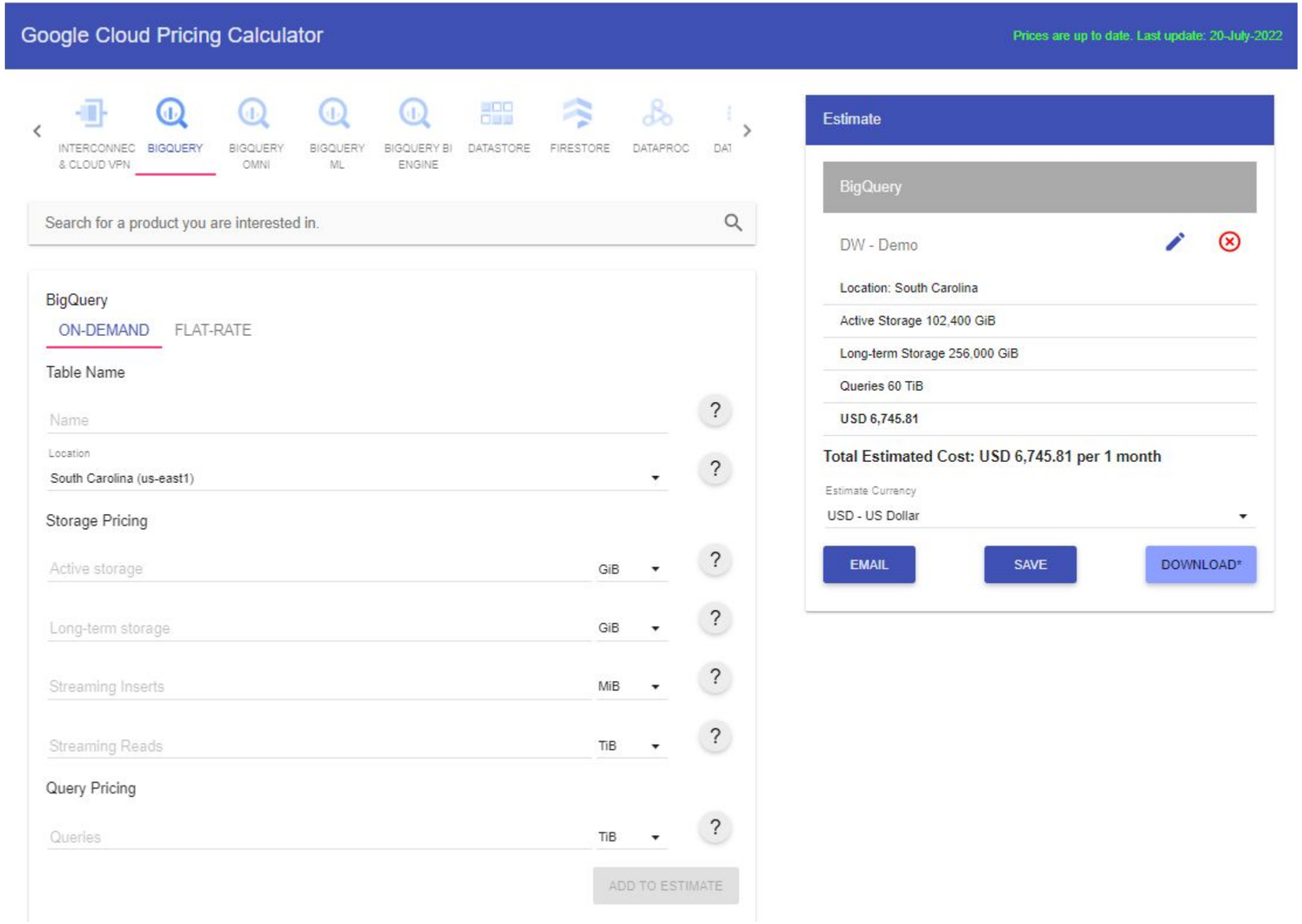
Agenda

- Cloud computing
- Google cloud platform
- Type of services and costs
- Google Cloud Architecture
- Qwiklabs - Lab 1
- Quiz
- Summary

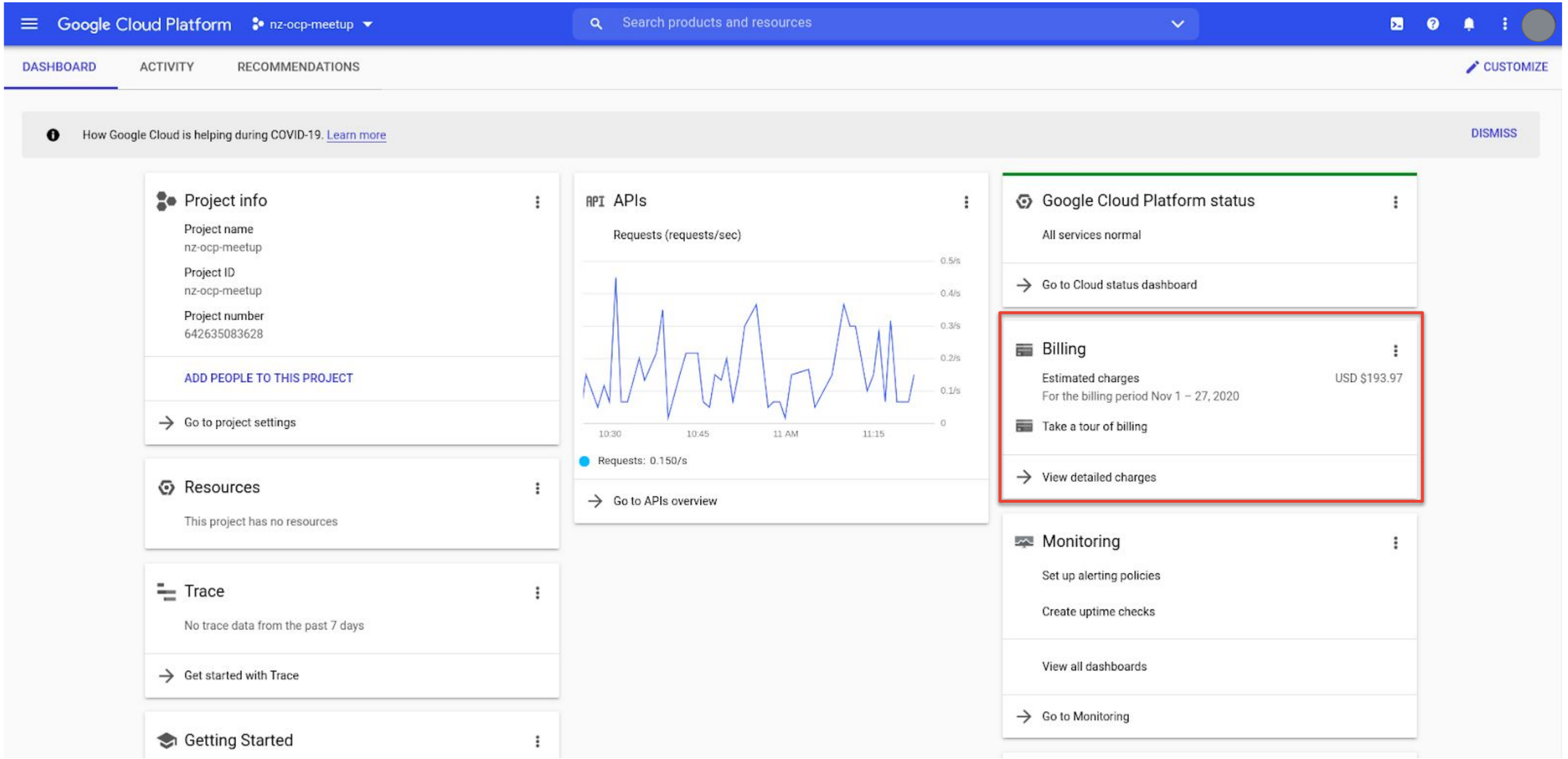
Type of services and billing



Pricing Calculator



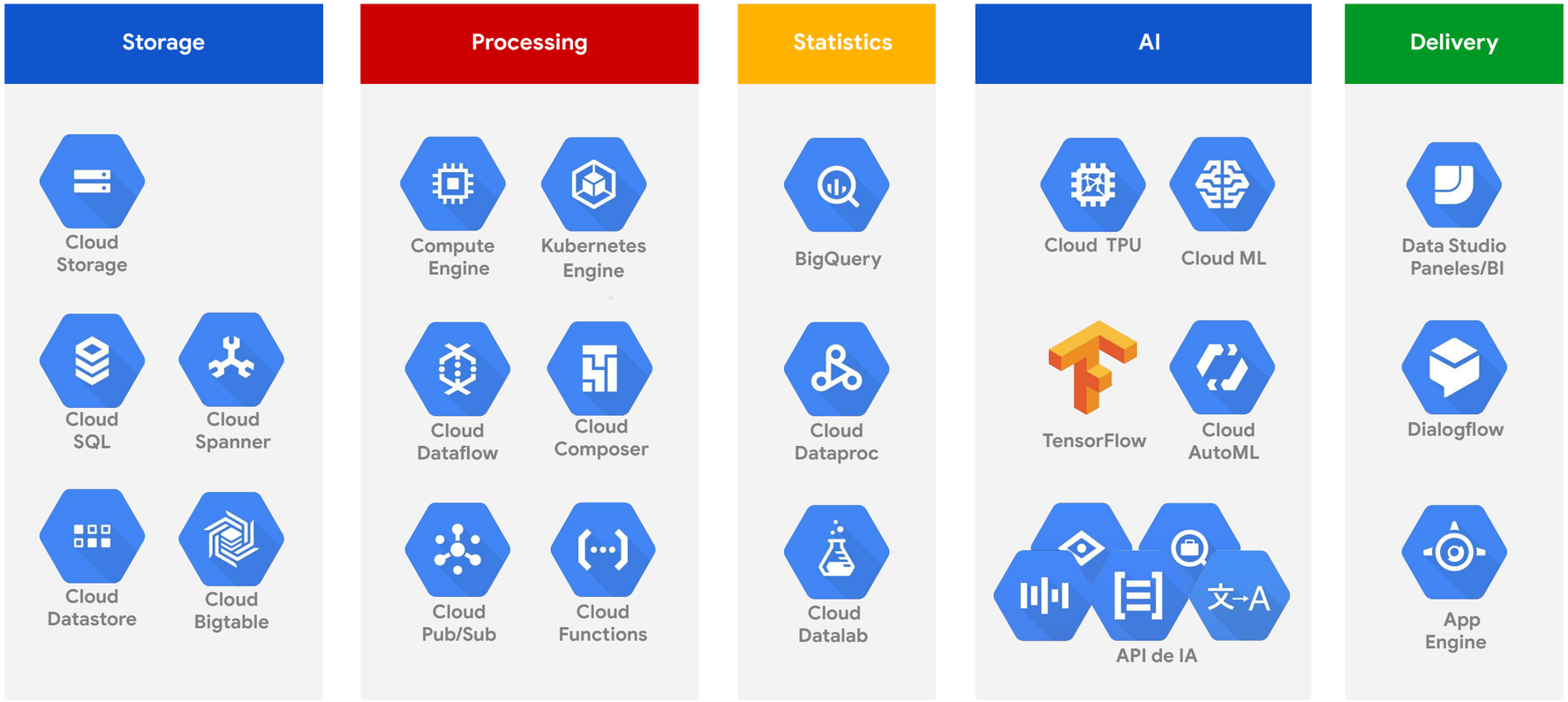
Billing


Google Cloud Platform
nz-ocp-meetup
Search products and resources
DASHBOARD
ACTIVITY
RECOMMENDATIONS
CUSTOMIZE
How Google Cloud is helping during COVID-19. Learn more
DISMISS
Project info
Project name
nz-ocp-meetup
Project ID
nz-ocp-meetup
Project number
642635083628
ADD PEOPLE TO THIS PROJECT
Go to project settings
Resources
This project has no resources
Trace
No trace data from the past 7 days
Get started with Trace
Getting Started
APIs
Requests (requests/sec)
0.5/s
0.4/s
0.3/s
0.2/s
0.1/s
0
10:30
10:45
11 AM
11:15
Requests: 0.150/s
Go to APIs overview
Google Cloud Platform status
All services normal
Go to Cloud status dashboard
Billing
Estimated charges
USD $193.97
For the billing period Nov 1 – 27, 2020
Take a tour of billing
View detailed charges
Monitoring
Set up alerting policies
Create uptime checks
View all dashboards
Go to Monitoring

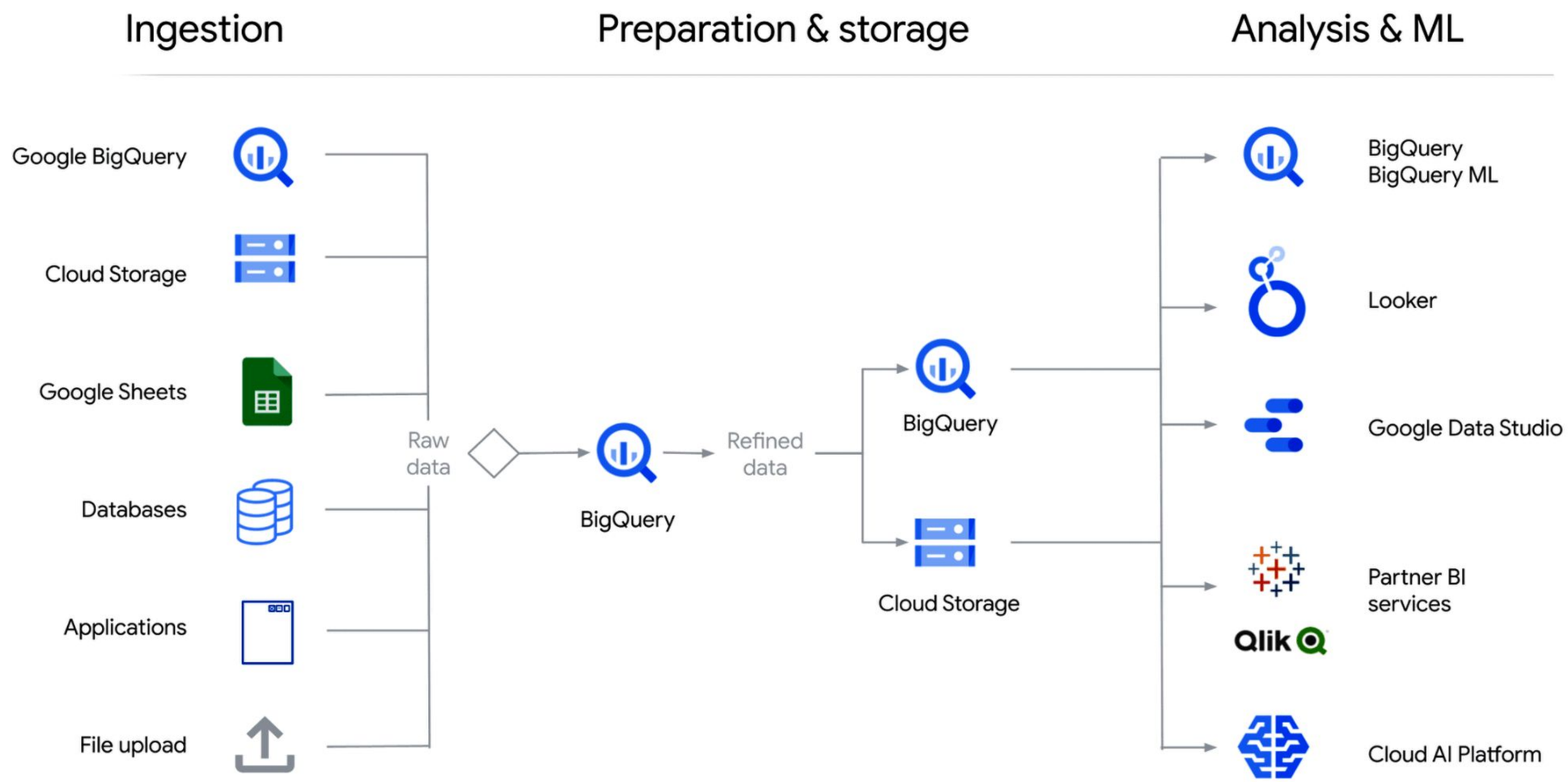
Agenda

- Cloud computing
- Google cloud platform
- Type of services and costs
- Google Cloud Architecture
- Qwiklabs - Lab 1
- Quiz
- Summary

Relationship between big data services



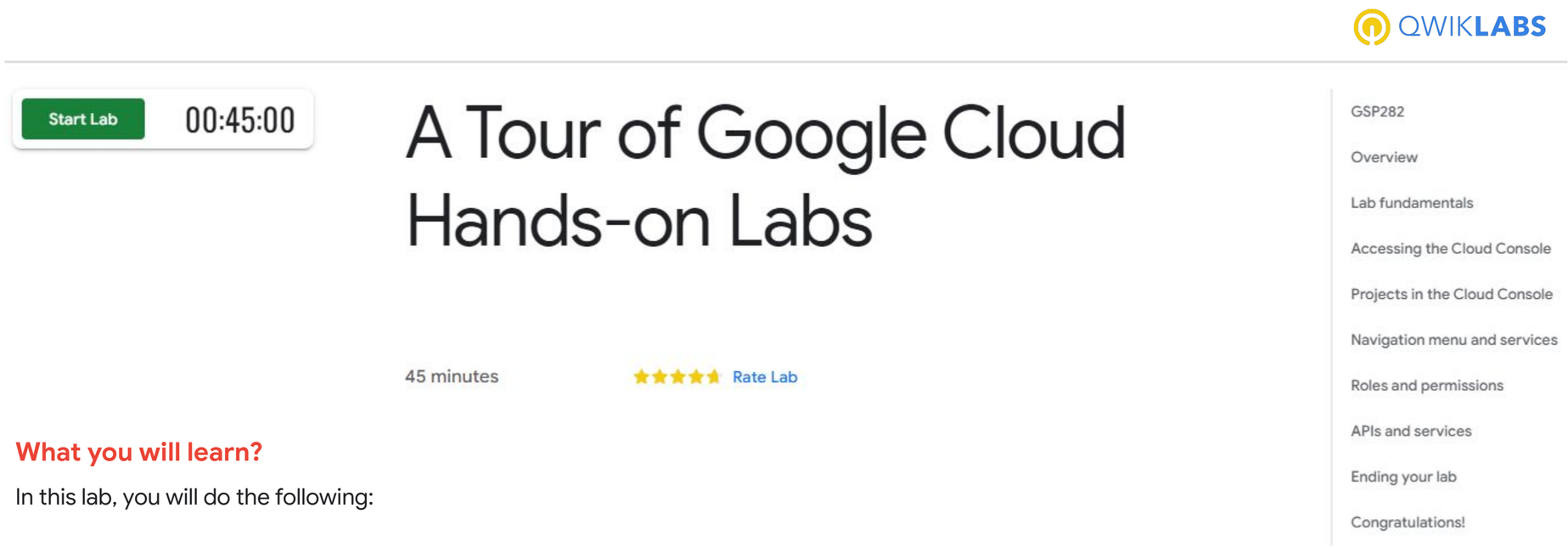
Reference architecture data solution



Agenda

- Cloud computing
- Google cloud platform
- Type of services and costs
- Google Cloud Architecture
- Qwiklabs - Lab 1
- Quiz
- Summary

Lab # 1



What you will learn?

In this lab, you will do the following:

- Learn about the labs platform, and identify key features of a lab environment.
- Learn how to access the Cloud Console with specific credentials.
- Learn about Google Cloud projects, and identify common misconceptions about them.
- Learn how to use the Google Cloud Navigation menu to identify types of Google Cloud services.
- Learn about primitive roles, and use the Cloud IAM service to inspect actions available to specific users.
- Learn about the API library, and examine its chief features.

Agenda

- Cloud computing
- Google cloud platform
- Type of services and costs
- Google Cloud Architecture
- Qwiklabs - Lab
- Quiz
- Summary

Quiz

Question 1/4

Which of the following is not a fundamental attribute of the cloud?

A. On-demand self-service

B. Resource pooling

C. Security as a service

D. Rapid elasticity

Quiz

Answer 1/4

Which of the following is not a fundamental attribute of the cloud?

A. On-demand self-service

B. Resource pooling

C. Security as a service

D. Rapid elasticity

Quiz

Question 2/4

What is the fully automated, elastic third-wave cloud that consists of a combination of automated services and scalable data?

A. On-premises

B. Colocation

C. Virtualized data center

D. Container-based architecture

Quiz

Answer 2/4

What is the fully automated, elastic third-wave cloud that consists of a combination of automated services and scalable data?

A. On-premises

B. Colocation

C. Virtualized data center

D. Container-based architecture

Quiz

Question 3/4

Which is a fundamental attribute of cloud computing?

A. Customers only get computing resources when the cloud provider has availability.

B. Customers get access to computing resources over the internet, from anywhere.

C. Computing resources cannot be scaled up or down.

D. Customers pay for allocated computing resources whether they make use of them or not.

Quiz

Answer 3/4

Which is a fundamental attribute of cloud computing?

A. Customers only get computing resources when the cloud provider has availability.

B. Customers get access to computing resources over the internet, from anywhere.

C. Computing resources cannot be scaled up or down.

D. Customers pay for allocated computing resources whether they make use of them or not.

Quiz

Question 4/4

Which service provides raw compute, storage, and network capabilities, organized virtually into resources that are similar to physical data centers?

A. IaaS

B. PaaS

C. SaaS

D. FaaS

Quiz

Answer 4/4

Which service provides raw compute, storage, and network capabilities, organized virtually into resources that are similar to physical data centers?

A. IaaS

B. PaaS

C. SaaS

D. FaaS

Agenda

- Cloud computing
- Google cloud platform
- Type of services and costs
- Google Cloud Architecture
- Qwiklabs - Lab
- Quiz
- Summary

Summary

- Explored cloud computing.
- Compared cloud platforms and GCP services.
- Differentiated IaaS, PaaS, and SaaS
- Billing and control of cost.
- Examined Google data architectures and the power of BigQuery.

Course map

Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5
What's the Google Cloud Platform?	Big Data is a new reality	The power of the cloud data warehouses	A powerful new solution to exploit data!	BigQuery Fundamentals

Chapter 6	Chapter 7	Chapter 8	Chapter 9
All you need to know about SQL	What's the most important?	Tips and tricks!	Machine learning at the reach of your hand

BigQuery From Zero to Expert

Chapter 2

Big Data is a new reality

This is a preview.
Hire our services to receive the training that includes the complete material.