

Google Africa Developer Scholarship Phase II

Google Cloud Practice Project

Timeline: Friday, Aug 28 - Friday, Sept 11 2020 (2 weeks)

Description

During Learning Phase 2 participants in the Cloud track of the GADS 2020 program shall be encouraged to explore the possibilities and opportunities to work with the gcloud SDK more in detail.

Due to limitations in regards to accessing free Google Cloud Platform (GCP), the Google Cloud challenge is based on the available **hands-on labs on Qwiklabs** provided by Pluralsight. Learners in the Cloud track have free access to a selection of fundamental labs on GCP.

The playground

All Google Cloud learners have access to multiple learning channels on Pluralsight. Each channel provides access to several video courses, and you have access to various labs through Qwiklabs.

The total of hands-on labs is 168 labs (as of writing). All links are provided below as an [annex](#).

The challenge(s)

The Cloud challenge is divided in two parts:

1. Complete of 10-15 selected hands-on labs on Qwiklabs and submitting proof of such per screenshot based on the email received.
2. "Translation" of 2-3 selected labs from Console instructions to 100% command line instructions.

Submission

- The result of both challenges shall be documented in a **Github repository**
 - ◆ How to get started with Github is an available course to learners via the Associate Cloud Engineer Foundational Deep Dive Channel (2020)
- Submit the documented github repo to the GADS Team here - bit.ly/GADSPracticeProjectSubmission

The learning aspects

Professional cloud engineers use a lot of automation and therefore scripting of solutions instead of clicking around in the UI of the web administration. Also using git and version control to store and monitor those scripts is a common use case.

Learners are gently guided towards this professional handling using both approaches. The translation of Cloud Console instructions to easy to use commands in the Cloud Shell helps to foster the understanding and knowledge of cloud computing in GCP.

Selection of labs shall be based on the curriculum and official study guide of the ACE exam as described by Google on their certification website.

Furthermore Qwiklabs hosts Speedrun competitions regularly and promotes them on Twitter and Medium. Without knowledge and use of CLI tools participants cannot compete in those Speedruns.

Engagement of learners

Cloud learners are requested to complete the requested tasks and then finally submit their public repository on Github via Google Forms back to us. Well, the repository could be sent back to us first. ;-)

All three tasks are deemed to engage learners in the available Slack channels. Whether it's the general #cloud channel or their associated PLG channel. This shall lead to a vital exchange of knowledge and tips on how to handle instructions as written commands in the Cloud Shell.

Available labs - Qwiklabs

Associate Cloud Engineer: Learning Phase 1 Main Track Channel (2020)

Course: Google Cloud Platform Fundamentals - Core Infrastructure

Module: Getting Started with Google Cloud Platform

GCP Fundamentals: Getting Started with Cloud Marketplace -

https://googlepluralsight.qwiklabs.com/focuses/10168771?parent=lti_session

GCP Fundamentals: Getting Started with Compute Engine -

https://googlepluralsight.qwiklabs.com/focuses/10168816?parent=lti_session

Module: Storage in the Cloud

GCP Fundamentals: Getting Started with Cloud Storage and Cloud SQL -

https://googlepluralsight.qwiklabs.com/focuses/10168831?parent=lti_session

Module: Containers in the Cloud

GCP Fundamentals: Getting Started with Kubernetes Engine -

https://googlepluralsight.qwiklabs.com/focuses/10168861?parent=lti_session

Module: Applications in the Cloud

GCP Fundamentals: Getting Started with App Engine -

https://googlepluralsight.qwiklabs.com/focuses/10168901?parent=lti_session

Module: Developing, Deploying and Monitoring in the Cloud

GCP Fundamentals: Getting Started with Deployment Manager and Stackdriver -

https://googlepluralsight.qwiklabs.com/focuses/10168918?parent=lti_session

Module: Big Data and Machine Learning in the Cloud

GCP Fundamentals: Getting Started with BigQuery -

https://googlepluralsight.qwiklabs.com/focuses/10168937?parent=lti_session

Course: Essential Google Cloud Infrastructure: Foundation

Module: Introduction to Google Cloud

Console and Cloud Shell -

https://googlepluralsight.qwiklabs.com/focuses/10168999?parent=lti_session

Infrastructure Preview

https://googlepluralsight.qwiklabs.com/focuses/10169005?parent=lti_session

Module: Virtual Networks

VPC Networking

https://googlepluralsight.qwiklabs.com/focuses/10169026?parent=lti_session

Implement Private Google Access and Cloud NAT

https://googlepluralsight.qwiklabs.com/focuses/10169034?parent=lti_session

Module: Virtual Machines

Creating Virtual Machines

https://googlepluralsight.qwiklabs.com/focuses/10169049?parent=lti_session

Working with Virtual Machines

https://googlepluralsight.qwiklabs.com/focuses/10169057?parent=lti_session

Course: Essential Google Cloud Infrastructure: Core Services

Module: Cloud IAM

Cloud IAM -

https://googlepluralsight.qwiklabs.com/focuses/10169099?parent=lti_session

Storage and Database Services -

https://googlepluralsight.qwiklabs.com/focuses/10169111?parent=lti_session

Implementing Cloud SQL -

https://googlepluralsight.qwiklabs.com/focuses/10169118?parent=lti_session

Module: Resource Management

Examining Billing data with BigQuery -

https://googlepluralsight.qwiklabs.com/focuses/10169165?parent=lti_session

Module: Resource Monitoring

Resource Monitoring -

https://googlepluralsight.qwiklabs.com/focuses/10169174?parent=lti_session

Error Reporting and Debugging -

https://googlepluralsight.qwiklabs.com/focuses/10169187?parent=lti_session

Course: Elastic Google Cloud Infrastructure: Scaling and Automation

Module: Interconnecting Networks

Virtual Private Networks (VPN) -

https://googlepluralsight.qwiklabs.com/focuses/10169210?parent=lti_session

Module: Load Balancing and Autoscaling

Configuring an HTTP Load Balancer with Autoscaling -

https://googlepluralsight.qwiklabs.com/focuses/10169237?parent=lti_session

Configuring an Internal Load Balancer -

https://googlepluralsight.qwiklabs.com/focuses/10169243?parent=lti_session

Module: Infrastructure Automation

Automating the Deployment of Infrastructure Using Deployment Manager -

https://googlepluralsight.qwiklabs.com/focuses/10169259?parent=lti_session

Automating the Deployment of Infrastructure Using Terraform -

https://googlepluralsight.qwiklabs.com/focuses/10169267?parent=lti_session

Course: Google Cloud Platform Fundamentals - Core Infrastructure

Module: Getting Started with Google Cloud Platform

GCP Fundamentals: Getting Started with Cloud Marketplace -

https://googlepluralsight.qwiklabs.com/focuses/10169395?parent=lti_session

Module: Virtual Machines in the Cloud

GCP Fundamentals: Getting Started with Compute Engine -

https://googlepluralsight.qwiklabs.com/focuses/10169417?parent=lti_session

Module: Storage in the Cloud

GCP Fundamentals: Getting Started with Cloud Storage and Cloud SQL -

https://googlepluralsight.qwiklabs.com/focuses/10169431?parent=lti_session

Module: Containers in the Cloud

GCP Fundamentals: Getting Started with Kubernetes Engine -

https://googlepluralsight.qwiklabs.com/focuses/10169442?parent=lti_session

Module: Applications in the Cloud

GCP Fundamentals: Getting Started with App Engine -

https://googlepluralsight.qwiklabs.com/focuses/10169457?parent=lti_session

Module: Developing, Deploying and Monitoring in the Cloud

GCP Fundamentals: Getting Started with Deployment Manager and Stackdriver -

https://googlepluralsight.qwiklabs.com/focuses/10169478?parent=lti_session

Module: Big Data and Machine Learning in the Cloud

GCP Fundamentals: Getting Started with BigQuery -

https://googlepluralsight.qwiklabs.com/focuses/10169493?parent=lti_session

Course: Architecting with Google Kubernetes Engine - Foundations

Module: Introduction to Google Cloud Platform

AK8S-01 Accessing the GCP Console and Cloud Shell -

https://googlepluralsight.qwiklabs.com/focuses/10169527?parent=lti_session

Module: Containers and Kubernetes in GCP

AK8S-02 Working with Cloud Build -

https://googlepluralsight.qwiklabs.com/focuses/10169540?parent=lti_session

Module: Kubernetes Architecture

AK8S-03 Creating a GKE Cluster via GCP Console -

https://googlepluralsight.qwiklabs.com/focuses/10169586?parent=lti_session

Course: Architecting with Google Kubernetes Engine - Workloads

Module: Kubernetes Operations

AK8S-04 Creating a GKE Cluster via Cloud Shell -

https://googlepluralsight.qwiklabs.com/focuses/10169609?parent=lti_session

AK8S-05 Upgrading Kubernetes Engine Clusters -

https://googlepluralsight.qwiklabs.com/focuses/10169615?parent=lti_session

Module: Deployments, Jobs, and Scaling

AK8S-06 Creating Kubernetes Engine Deployments -

https://googlepluralsight.qwiklabs.com/focuses/10169627?parent=lti_session

AK8S-07 Deploying Jobs on Kubernetes Engine -

https://googlepluralsight.qwiklabs.com/focuses/10169638?parent=lti_session

AK8S-11 Configuring Pod Autoscaling and NodePools -

https://googlepluralsight.qwiklabs.com/focuses/10169647?parent=lti_session

AK8S-08 Deploying Kubernetes Engine via Helm Charts -

https://googlepluralsight.qwiklabs.com/focuses/10169656?parent=lti_session

Module: Google Kubernetes Engine Networking

AK8S-10 Creating Services and Ingress Resources -

https://googlepluralsight.qwiklabs.com/focuses/10169670?parent=lti_session

Module: Persistent Data and Storage

AK8S-12 Configuring Persistent Storage for Kubernetes Engine -

https://googlepluralsight.qwiklabs.com/focuses/10169684?parent=lti_session

AK8S-13 Working with Kubernetes Engine Secrets and ConfigMaps -

https://googlepluralsight.qwiklabs.com/focuses/10169691?parent=lti_session

Course: Architecting with Google Kubernetes Engine - Production

Module: Access Control and Security in Kubernetes and GKE

AK8S-14 Securing Kubernetes Engine with Cloud IAM and Pod Security Policies

https://googlepluralsight.qwiklabs.com/focuses/10169723?parent=lti_session

AK8S-15 Implementing Role-Based Access Control With Kubernetes Engine

https://googlepluralsight.qwiklabs.com/focuses/10169727?parent=lti_session

Module: GKE Logging and Monitoring

Configuring Kubernetes Engine native Stackdriver Monitoring and Logging

https://googlepluralsight.qwiklabs.com/focuses/10169743?parent=lti_session

Configuring Liveness and Readiness Probes

https://googlepluralsight.qwiklabs.com/focuses/10169748?parent=lti_session

Module: Using GCP Managed Storage Services with GKE

AK8S-18 Using Cloud SQL with Kubernetes Engine

https://googlepluralsight.qwiklabs.com/focuses/10169787?parent=lti_session

Course: Hybrid Cloud Infrastructure Foundations with Anthos

Module: Introduction to Service Mesh

AHYBRID030 Installing the Istio on GKE Add-On with Kubernetes Engine

https://googlepluralsight.qwiklabs.com/focuses/10167414?parent=lti_session

OR

AHYBRID035 Installing Anthos Service Mesh on Google Kubernetes Engine

https://googlepluralsight.qwiklabs.com/focuses/10167451?parent=lti_session

Module: Managing Hybrid Clusters using Kubernetes Engine

AHYBRID020 Managing Hybrid Clusters using Kubernetes Engine

https://googlepluralsight.qwiklabs.com/focuses/10167555?parent=lti_session

Course: Hybrid Cloud Service Mesh with Anthos

Module: Observing Services using Service Mesh Adapters

AHYBRID040 Observing Services using Prometheus, Grafana, Jaeger, and Kiali

link has issues check again later

Module: Managing Traffic Routing with Service Mesh

AHYBRID050 Traffic Management with Anthos Service Mesh

https://googlepluralsight.qwiklabs.com/focuses/10208039?parent=lti_session

Module: Managing Policies and Security with Service Mesh

AHYBRID060 Managing Policies and Security with Istio and Citadel

https://googlepluralsight.qwiklabs.com/focuses/10210574?parent=lti_session

Associate Cloud Engineer: Learning Phase 1 Deep Dive Channel (2020)

Course: Google Cloud Fundamentals for Azure Professionals

Module: Getting Started with Google Cloud

GCP Fundamentals: Getting Started with Cloud Marketplace - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210644?parent=lti_session

Module: Virtual Machines in the Cloud

GCP Fundamentals: Getting Started with Compute Engine - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210667?parent=lti_session

Module: Storage in the Cloud

GCP Fundamentals: Getting Started with Cloud Storage and Cloud SQL - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210682?parent=lti_session

Module: Containers in the Cloud

GCP Fundamentals: Getting Started with Kubernetes Engine - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210696?parent=lti_session

Module: Developing Deploying and Monitoring in the Cloud

GCP Fundamentals: Getting Started with Deployment Manager and Stackdriver - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210708?parent=lti_session

Module: Big Data and Machine Learning in the Cloud

GCP Fundamentals: Getting Started with BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10211123?parent=lti_session

Course: Google Cloud Fundamentals for AWS Professionals

Module: Getting Started with Google Cloud

GCP Fundamentals: Getting Started with Cloud Marketplace - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210644?parent=lti_session

Module: Virtual Machines in the Cloud

GCP Fundamentals: Getting Started with Compute Engine - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210667?parent=lti_session

Module: Storage in the Cloud

GCP Fundamentals: Getting Started with Cloud Storage and Cloud SQL - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210682?parent=lti_session

Module: Containers in the Cloud

GCP Fundamentals: Getting Started with Kubernetes Engine - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210696?parent=lti_session

Module: Developing Deploying and Monitoring in the Cloud

GCP Fundamentals: Getting Started with Deployment Manager and Stackdriver - Windows

https://googlepluralsight.qwiklabs.com/focuses/10210708?parent=lti_session

Module: Big Data and Machine Learning in the Cloud

GCP Fundamentals: Getting Started with BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10211123?parent=lti_session

Associate Cloud Engineer - Learning Phase 2 Main Track Channel (2020)

Course: Google Cloud Platform Fundamentals - Core Infrastructure

Module: Getting Started with Google Cloud Platform

GCP Fundamentals: Getting Started with Cloud Marketplace

https://googlepluralsight.qwiklabs.com/focuses/10213528?parent=lti_session

Module: Virtual Machines in the Cloud

GCP Fundamentals: Getting Started with Compute Engine

Module: GCP Fundamentals: Getting Started with Cloud Storage and Cloud SQL

https://googlepluralsight.qwiklabs.com/focuses/10213711?parent=lti_session

Module: Containers in the Cloud

GCP Fundamentals: Getting Started with Kubernetes Engine

https://googlepluralsight.qwiklabs.com/focuses/10213746?parent=lti_session

Module: Applications in the Cloud

GCP Fundamentals: Getting Started with App Engine

https://googlepluralsight.qwiklabs.com/focuses/10213761?parent=lti_session

Module: Developing, Deploying and Monitoring in the Cloud

GCP Fundamentals: Getting Started with Deployment Manager and Stackdriver

https://googlepluralsight.qwiklabs.com/focuses/10213776?parent=lti_session

Module: Big Data and Machine Learning in the Cloud

GCP Fundamentals: Getting Started with BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10213821?parent=lti_session

Course: Getting Started With Application Development on Google Cloud

Module: Google Cloud Client Libraries, Google Cloud SDK, and Google Firebase SDK

https://googlepluralsight.qwiklabs.com/focuses/10217231?parent=lti_session

Module: Best Practices for Using Cloud Datastore

App Dev: Storing Application Data in Cloud Datastore v1.1

https://googlepluralsight.qwiklabs.com/focuses/10217243?parent=lti_session

Module: Best Practices for Using Cloud Storage

App Dev: Storing Image and Video Files in Cloud Storage v1.1

https://googlepluralsight.qwiklabs.com/focuses/10217254?parent=lti_session

Course: Google Cloud Platform Big Data and Machine Learning Fundamentals

Module: Introduction to Google Cloud Platform

https://googlepluralsight.qwiklabs.com/focuses/10217293?parent=lti_session

Module: Recommending Products using Cloud SQL and Spark

Lab: Recommend Products using ML with Cloud SQL and Dataproc

https://googlepluralsight.qwiklabs.com/focuses/10217304?parent=lti_session

Module: Predict Visitor Purchases Using BigQuery ML

Lab: Predict Visitor Purchases with a Classification Model with BigQuery ML

https://googlepluralsight.qwiklabs.com/focuses/10217317?parent=lti_session

Module: Create Streaming Data Pipelines with Cloud Pub/sub and Cloud Dataflow

Lab: Create a Streaming Data Pipeline for a Real-Time Dashboard with Cloud Dataflow

https://googlepluralsight.qwiklabs.com/focuses/10217325?parent=lti_session

Module: Classify Images with Pre-Built Models using Vision API and Cloud AutoML

Lab: Classify Images with Pre-built ML Models using Cloud Vision API and AutoML

https://googlepluralsight.qwiklabs.com/focuses/10217346?parent=lti_session

Associate Cloud Engineer - Learning Phase 2 Deep Dive Channel (2020)

Course: API Design and Fundamentals of Google Cloud's Apigee API Platform

Upgrade Plan to View Modules

Course: Getting Started With Application Development on Google Cloud

Module: Google Cloud Client Libraries, Google Cloud SDK, and Google Firebase SDK

App Dev: Setting up a Development Environment v1.1

https://googlepluralsight.qwiklabs.com/focuses/10217535?parent=lti_session

Module: Best Practices for Using Cloud Datastore

App Dev: Storing Application Data in Cloud Datastore v1.1

https://googlepluralsight.qwiklabs.com/focuses/10217550?parent=lti_session

Module: Best Practices for Using Cloud Storage

App Dev: Storing Image and Video Files in Cloud Storage v1.1

https://googlepluralsight.qwiklabs.com/focuses/10217562?parent=lti_session

Course: Securing and Integrating Components of your Application on Google Cloud

Module: Handling Authentication and Authorization

App Dev - Adding User Authentication to your Application: Node.js

https://googlepluralsight.qwiklabs.com/focuses/10217628?parent=lti_session

App Dev - Adding User Authentication to your Application: Java

https://googlepluralsight.qwiklabs.com/focuses/10217632?parent=lti_session

App Dev - Adding User Authentication to your Application: Python

https://googlepluralsight.qwiklabs.com/focuses/10217638?parent=lti_session

Module: Using Cloud Pub/Sub

App Dev - Developing a Backend Service: Node.js

https://googlepluralsight.qwiklabs.com/focuses/10217651?parent=lti_session

App Dev - Developing a Backend Service: Java

https://googlepluralsight.qwiklabs.com/focuses/10217660?parent=lti_session

App Dev - Developing a Backend Service: Python

https://googlepluralsight.qwiklabs.com/focuses/10217666?parent=lti_session

Module: Using Cloud Functions

App Dev - Processing Cloud Pub/Sub Data using Cloud Functions: Node.js

https://googlepluralsight.qwiklabs.com/focuses/10217691?parent=lti_session

Module: Using Cloud Endpoints

App Dev - Deploying an API for the Quiz Application: Node.js

https://googlepluralsight.qwiklabs.com/focuses/10217708?parent=lti_session

Course: App Deployment, Debugging, and Performance on Google Cloud

Module: Deploying Applications

App Dev - Deploying the Application into Kubernetes Engine: Node.js

https://googlepluralsight.qwiklabs.com/focuses/10217727?parent=lti_session

App Dev - Deploying the Application into Kubernetes Engine: Java

https://googlepluralsight.qwiklabs.com/focuses/10217737?parent=lti_session

App Dev - Deploying the Application into Kubernetes Engine: Python

https://googlepluralsight.qwiklabs.com/focuses/10217745?parent=lti_session

Module: Execution Environments for your Application

App Dev - Deploying the Application into App Engine Flexible Environment: Node.js

https://googlepluralsight.qwiklabs.com/focuses/10217755?parent=lti_session

App Dev - Deploying the Application into App Engine Flexible Environment: Java

https://googlepluralsight.qwiklabs.com/focuses/10217760?parent=lti_session

App Dev - Deploying the Application into App Engine Flexible Environment: Python

https://googlepluralsight.qwiklabs.com/focuses/10217766?parent=lti_session

Module: Debugging, Monitoring, and Tuning Performance

App Dev - Debugging Application Errors: Node.js

https://googlepluralsight.qwiklabs.com/focuses/10217775?parent=lti_session

App Dev - Harnessing Stackdriver Trace and Monitoring: Node.js

https://googlepluralsight.qwiklabs.com/focuses/10217785?parent=lti_session

Course: Google Cloud Platform Big Data and Machine Learning Fundamentals

Module: Introduction to Google Cloud Platform

Lab: Explore a BigQuery Public Dataset

https://googlepluralsight.qwiklabs.com/focuses/10217886?parent=lti_session

Module: Recommending Products using Cloud SQL and Spark

Lab: Recommend Products using ML with Cloud SQL and Dataproc

https://googlepluralsight.qwiklabs.com/focuses/10217904?parent=lti_session

Module: Predict Visitor Purchases Using BigQuery ML

Lab: Predict Visitor Purchases with a Classification Model with BigQuery ML

https://googlepluralsight.qwiklabs.com/focuses/10217917?parent=lti_session

Module: Create Streaming Data Pipelines with Cloud Pub/sub and Cloud Dataflow

Lab: Create a Streaming Data Pipeline for a Real-Time Dashboard with Cloud Dataflow

https://googlepluralsight.qwiklabs.com/focuses/10217931?parent=lti_session

Module: Classify Images with Pre-Built Models using Vision API and Cloud AutoML

Lab: Classify Images with Pre-built ML Models using Cloud Vision API and AutoML

https://googlepluralsight.qwiklabs.com/focuses/10217945?parent=lti_session

Course: Modernizing Data Lakes and Data Warehouses with GCP

Module: Introduction to Data Engineering

Using BigQuery to do Analysis

https://googlepluralsight.qwiklabs.com/focuses/10217978?parent=lti_session

Module: Building a Data Lake

Loading Taxi Data into Google Cloud SQL

https://googlepluralsight.qwiklabs.com/focuses/10217985?parent=lti_session

Module: Building a data warehouse

Loading data into BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10218002?parent=lti_session

Working with JSON and Array data in

BigQueryhttps://googlepluralsight.qwiklabs.com/focuses/10218013?parent=lti_session

Course: Building Batch Data Pipelines on GCP

Module: Executing Spark on Cloud Dataproc

Running Apache Spark jobs on Cloud Dataproc

https://googlepluralsight.qwiklabs.com/focuses/10218130?parent=lti_session

Module: Manage Data Pipelines with Cloud Data Fusion and Cloud Composer

Building and Executing a Pipeline Graph with Data Fusion

https://googlepluralsight.qwiklabs.com/focuses/10218141?parent=lti_sessionhttps://googlepluralsight.qwiklabs.com/focuses/10218141?parent=lti_session

An Introduction to Cloud Composer

https://googlepluralsight.qwiklabs.com/focuses/10218147?parent=lti_session

Module: Serverless Data Processing with Cloud Dataflow

Serverless Data Analysis with Dataflow: A Simple Dataflow Pipeline (Java)

https://googlepluralsight.qwiklabs.com/focuses/10218161?parent=lti_session

Serverless Data Analysis with Dataflow: A Simple Dataflow Pipeline (Python)

https://googlepluralsight.qwiklabs.com/focuses/10218180?parent=lti_session

Serverless Data Analysis with Dataflow : MapReduce in Dataflow (Java)

https://googlepluralsight.qwiklabs.com/focuses/10218169?parent=lti_session

Serverless Data Analysis with Dataflow: MapReduce in Dataflow (Python)

https://googlepluralsight.qwiklabs.com/focuses/10218193?parent=lti_session

Serverless Data Analysis with Dataflow: Side Inputs (Python)

https://googlepluralsight.qwiklabs.com/focuses/10218194?parent=lti_session

Serverless Data Analysis with Dataflow: Side Inputs (Java)

https://googlepluralsight.qwiklabs.com/focuses/10218204?parent=lti_session

Course: Building Resilient Streaming Analytics Systems on GCP

Module: Serverless Messaging with Cloud Pub/Sub

Streaming Data Processing: Publish Streaming Data into PubSub

https://googlepluralsight.qwiklabs.com/focuses/10218223?parent=lti_session

Module: Cloud Dataflow Streaming Features

Streaming Data Processing: Streaming Data Pipelines

https://googlepluralsight.qwiklabs.com/focuses/10218230?parent=lti_session

Module: High-Throughput BigQuery and Bigtable Streaming Features

Streaming Data Processing: Streaming Analytics and Dashboards

https://googlepluralsight.qwiklabs.com/focuses/10218253?parent=lti_session

Streaming Data Processing: Streaming Data Pipelines into Bigtable

https://googlepluralsight.qwiklabs.com/focuses/10218260?parent=lti_session

Module: Advanced BigQuery Functionality and Performance

Optimizing your BigQuery Queries for Performance

https://googlepluralsight.qwiklabs.com/focuses/10218269?parent=lti_session

Partitioned Tables in Google BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10218275?parent=lti_session

Course: Smart Analytics, Machine Learning, and AI on GCP

Module: Prebuilt ML model APIs for Unstructured Data

Using the Natural Language API to classify unstructured text

https://googlepluralsight.qwiklabs.com/focuses/10218298?parent=lti_session

Module: Big Data Analytics with Cloud AI Platform Notebooks

BigQuery in Jupyter Labs on AI Platform

https://googlepluralsight.qwiklabs.com/focuses/10218314?parent=lti_session

Module: Productionizing Custom ML Models

Running AI models on Kubeflow

https://googlepluralsight.qwiklabs.com/focuses/10218322?parent=lti_session

Module: Custom Model building with SQL in BigQuery ML

Predict Bike Trip Duration with a Regression Model in BQML

https://googlepluralsight.qwiklabs.com/focuses/10218330?parent=lti_session

Movie Recommendations in BigQuery ML

https://googlepluralsight.qwiklabs.com/focuses/10218332?parent=lti_session

Course: Google Cloud Platform Big Data and Machine Learning Fundamentals

Module: Introduction to Google Cloud Platform

Lab: Explore a BigQuery Public Dataset

https://googlepluralsight.qwiklabs.com/focuses/10218351?parent=lti_session

Module: Recommending Products using Cloud SQL and Spark

Lab: Recommend Products using ML with Cloud SQL and Dataproc

https://googlepluralsight.qwiklabs.com/focuses/10218366?parent=lti_session

Module: Predict Visitor Purchases Using BigQuery ML

Lab: Predict Visitor Purchases with a Classification Model with BigQuery ML

https://googlepluralsight.qwiklabs.com/focuses/10218376?parent=lti_session

Module: Create Streaming Data Pipelines with Cloud Pub/sub and Cloud Dataflow

Lab: Create a Streaming Data Pipeline for a Real-Time Dashboard with Cloud Dataflow

https://googlepluralsight.qwiklabs.com/focuses/10218391?parent=lti_session

Module: Classify Images with Pre-Built Models using Vision API and Cloud AutoML

Lab: Classify Images with Pre-built ML Models using Cloud Vision API and AutoML

https://googlepluralsight.qwiklabs.com/focuses/10218403?parent=lti_session

Course: Exploring and Preparing your Data with BigQuery

Module: Big Data Tools Overview

Explore a BigQuery Public Dataset

https://googlepluralsight.qwiklabs.com/focuses/10218437?parent=lti_session

Module: Exploring your Data with SQL

Troubleshooting Common SQL Errors with BigQuery v1.5

https://googlepluralsight.qwiklabs.com/focuses/10218452?parent=lti_session

Module: Cleaning and Transforming your Data

Exploring and Creating an Ecommerce Analytics Pipeline with Cloud Dataprep v1.5

https://googlepluralsight.qwiklabs.com/focuses/10218470?parent=lti_session

Course: Modernizing Data Lakes and Data Warehouses with GCP

Module: Introduction to Data Engineering

Using BigQuery to do Analysis

https://googlepluralsight.qwiklabs.com/focuses/10218503?parent=lti_session

Module: Building a Data Lake

Loading Taxi Data into Google Cloud SQL

https://googlepluralsight.qwiklabs.com/focuses/10218515?parent=lti_session

Module: Building a data warehouse

Loading data into BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10218554?parent=lti_session

Working with JSON and Array data in BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10218563?parent=lti_session

Course: Exploring and Preparing your Data with BigQuery

Module: Big Data Tools Overview

Explore a BigQuery Public Dataset

https://googlepluralsight.qwiklabs.com/focuses/10218587?parent=lti_session

Troubleshooting Common SQL Errors with BigQuery v1.5

https://googlepluralsight.qwiklabs.com/focuses/10218599?parent=lti_session

Module: Cleaning and Transforming your Data

Exploring and Creating an Ecommerce Analytics Pipeline with Cloud Dataprep v1.5
https://googlepluralsight.qwiklabs.com/focuses/10218611?parent=lti_session

New Lab! Cloud Data Fusion [Ling to videos with optional qwiklabs]

https://s2.pluralsight.com/links/1808ea18-f2e4-4687-abaf-0de1beb27363_file-new-lab-cloud-data-fusion.pdf

Building Transformations and Preparing Data with Wrangler in Cloud Data Fusion

https://googlepluralsight.qwiklabs.com/focuses/10218639?parent=lti_session

Course: Creating New BigQuery Datasets and Visualizing Insights

Data to Insights: Creating new Permanent Tables v1.1

<https://googlepluralsight.qwiklabs.com/focuses/39190>

Module: Ingesting New Datasets into Google BigQuery

Data to Insights: Ingesting and Querying New Datasets v1.1

<https://googlepluralsight.qwiklabs.com/focuses/39192>

Creating Date-Partitioned Tables in BigQuery v1.5

https://googlepluralsight.qwiklabs.com/focuses/10218676?parent=lti_session

Module: Joining and Merging Datasets

Data to Insights: Unioning and Joining Datasets v1.1

https://googlepluralsight.qwiklabs.com/focuses/10218703?parent=lti_session

Module: Data Visualization

Data to Insights: Exploring a Dataset in Google Data Studio v1.1

<https://googlepluralsight.qwiklabs.com/focuses/39199>

Course: Achieving Advanced Insights with BigQuery

Module: Advanced Functions and Clauses

Deriving Insights from Advanced SQL Functions v1.5

https://googlepluralsight.qwiklabs.com/focuses/10218827?parent=lti_session

Module: Schema Design and Nested Data Structures

Data to Insights: Practicing Querying Nested and Repeated Fields v1.1

<https://googlepluralsight.qwiklabs.com/focuses/39203>

Module: Optimizing for Performance

Data to Insights: Optimizing and Troubleshooting Query Performance v1.1

<https://googlepluralsight.qwiklabs.com/focuses/39204>

Course: Applying Machine Learning to your Data with GCP

Module: Pre-trained ML APIs

Practice with ML APIs in Cloud Datalab v1.5

https://googlepluralsight.qwiklabs.com/focuses/10218938?parent=lti_session

Module: Creating ML Datasets in BigQuery

Creating Repeatable Dataset Splits in BigQuery v1.5

https://googlepluralsight.qwiklabs.com/focuses/10218984?parent=lti_session

Module: Creating ML Models in BigQuery

Predict Visitor Purchases with a Classification Model in BQML v1.5

https://googlepluralsight.qwiklabs.com/focuses/10218997?parent=lti_session

Predict Taxi Fare with a BigQuery ML Forecasting Model v1.5

https://googlepluralsight.qwiklabs.com/focuses/10219010?parent=lti_session

Course: Modernizing Data Lakes and Data Warehouses with GCP

Module: Introduction to Data Engineering

Using BigQuery to do Analysis

https://googlepluralsight.qwiklabs.com/focuses/10219025?parent=lti_session

Module: Building a Data Lake

Loading Taxi Data into Google Cloud SQL

https://googlepluralsight.qwiklabs.com/focuses/10219049?parent=lti_session

Module: Building a data warehouse

Loading data into BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10219066?parent=lti_session

Working with JSON and Array data in BigQuery

https://googlepluralsight.qwiklabs.com/focuses/10219076?parent=lti_session

Course: Building Batch Data Pipelines on GCP

Module: Executing Spark on Cloud Dataproc

Running Apache Spark jobs on Cloud Dataproc

https://googlepluralsight.qwiklabs.com/focuses/10219095?parent=lti_session

Module: Manage Data Pipelines with Cloud Data Fusion and Cloud Composer

Building and Executing a Pipeline Graph with Data Fusion

https://googlepluralsight.qwiklabs.com/focuses/10219109?parent=lti_session

Module: Serverless Data Processing with Cloud Dataflow

Serverless Data Analysis with Dataflow: A Simple Dataflow Pipeline (Java)

https://googlepluralsight.qwiklabs.com/focuses/10219131?parent=lti_session

Serverless Data Analysis with Dataflow: A Simple Dataflow Pipeline (Python)

https://googlepluralsight.qwiklabs.com/focuses/10219137?parent=lti_session

Serverless Data Analysis with Dataflow : MapReduce in Dataflow (Java)

https://googlepluralsight.qwiklabs.com/focuses/10219145?parent=lti_session

Serverless Data Analysis with Dataflow: MapReduce in Dataflow (Python)

https://googlepluralsight.qwiklabs.com/focuses/10219156?parent=lti_session

Serverless Data Analysis with Dataflow: Side Inputs (Python)

https://googlepluralsight.qwiklabs.com/focuses/10219162?parent=lti_session

Serverless Data Analysis with Dataflow: Side Inputs (Java)

https://googlepluralsight.qwiklabs.com/focuses/10219174?parent=lti_session