Applied Data: Blockchain

Advanced 6 Steps 5 hours 30 Credits

Blockchain and related technologies such as distributed ledger and distributed apps are becoming new value drivers and solution priorities in many industries. In this Quest you will gain hands-on experience with distributed ledger and the exploration of blockchain datasets in Google Cloud. This Quest brings the research and solution work of Google's Allen Day into self-paced labs for you to run and learn directly. As this Quest utilizes advanced SQL in BigQuery, we've added a SQL-in-BigQuery refresher lab at the start. The final lab is an advanced challenge-style lab in which there are elements where you are not provided the answer but must solve it for yourself.

Data Business Transformation

Prerequisites:

Previous work with SQL in BigQuery will be helpful but not necessary before trying these labs. Prior theoretical understanding of blockchain technologies will also be beneficial, but not required.

Objectives:

- Become aware of the cryptocurrency datasets updated in real-time in BigQuery
- Use data visualization tools to map datasets and transaction flows
- Explore interesting transaction questions and answers with advanced SQL queries
- Launch your own blockchain distributed ledger with the open source Hyperledger in GCP

Quest Outline

Introduction to SQL for BigQuery and Cloud SQL

In this lab you will learn fundamental SQL clauses and will get hands on practice running structured queries on BigQuery and Cloud SQL.

1 hour | Introductory | 1 Credit

Visualize the 10,000 Bitcoin Pizza Transaction Using BigQuery and AI Notebooks

In this lab you will use an AI Platform Notebook instance to retrieve as many transactions as possible from BigQuery within 2 degrees of separation from the pizza exchange, post-process the transactions to remove excess transaction, then visualize the directed graph.

45 minutes | Fundamental | 5 Credits

Tracking Cryptocurrency Exchange Trades with Google Cloud Platform in Real-Time

In this lab you will use GCP services to help graph trades, volume, and time delta from trade execution to see any patterns in the high volatility of the cryptocurrency market.

1 hour | Expert | 9 Credits

Getting Started with Blockchain on GCP using Hyperledger Fabric and Composer

In this lab, you will learn to use Hyperledger Composer to quickly model a business network, containing assets, participants and transactions related to them.

45 minutes | Introductory | 1 Credit

Exploring the Public Cryptocurrency Datasets Available in BigQuery

In this hands-on lab you'll learn how to use BigQuery to explore the cryptocurrency public datasets now available. This is a challange lab, and you are required to complete some simple SQL statements.

35 minutes | Expert | 9 Credits

Spin Up A Blockchain Node with BlockApps STRATO in 3 minutes

Discover how easy it is to spin up a private blockchain network and create user accounts within the network using BlockApps' STRATO platform on GCP.

30 minutes | Fundamental | 5 Credits

Quest Complete!

Congrats! You completed this quest and earned a badge. Become a cloud expert and start another.