**Build a BI Dashboard Using Looker Studio and BigQuery**

**Overview**

For as long as business intelligence (BI) has been around, visualization tools have played an important role in helping analysts and decision-makers quickly get insights from data. In this lab, you'll step into the shoes of a tree services manager for a large city. Your mission: build a powerful dashboard using Looker Studio and BigQuery to uncover valuable insights hidden within your large tree service usage logs. This dashboard will help you make informed, data-backed decisions to optimize your operations.

Why is this important? Visualizations turn raw data into actionable insights. With a well-designed dashboard, you'll quickly identify trends, spot potential issues, and make strategic choices that can improve efficiency and service quality. This lab assumes some familiarity with BigQuery and Looker Studio. For more information, review the background docs ([BigQuery concepts](https://cloud.google.com/bigquery/docs/concepts" \t "_blank), [Looker Studio overview](https://cloud.google.com/looker-studio)).

**Objectives**

In this lab, you will learn how to:

* Upload queryable data to BigQuery
* Create a reports dataset in BigQuery
* Run one-time queries in BigQuery and schedule queries
* Create a report in Looker Studio using BigQuery data

Solution overview

Typically, a dashboard shows an aggregated view of usage — it doesn't need details all the way to the level of an order ID, for instance. So, to reduce query costs, you'll first aggregate your needed logs into another dataset called "Reports" then create a table of aggregated data. You'll query the table from the Data Studio dashboard. This way, when your dashboard is refreshed, the reporting dataset queries process less data. Since usage logs from the past never change, you'll only refresh new usage data into the Reports dataset.

