

Gemini in BigQuery for Data Practitioners

This course demonstrates how to use AI/ML models for generative AI tasks in BigQuery. Through a practical use case involving customer relationship management, you learn the workflow of solving a business problem with Gemini models. To facilitate comprehension, the course also provides step-by-step guidance through coding solutions using both SQL queries and Python notebooks.

**DURATION**

1 day

**LEVEL**

200 - Intermediate

**FORMAT**

Instructor-led

What you'll learn

- Explain the workflow of using AI/ML models for predictive and generative tasks in BigQuery.
- Create a solution for leveraging Gemini models in BigQuery with SQL queries and Jupyter Notebooks.

Overview	5 modules · 5 labs · 5 classroom activities
Who this course is for	• Data analysts, data engineers, and other data professionals who wish to use Gemini in BigQuery to boost productivity and understand their unstructured data.
Products	• Agent Platform • BigQuery Studio • Knowledge Catalog • Dataform • Gemini Enterprise • Agent Studio on Gemini Enterprise Agent Platform • Lakehouse • Gemini • BigQuery
Prerequisites	• Prior experience with programming languages including SQL and/or Python. • Basic knowledge of ML and generative AI.

Module 01

Gemini on BigQuery

Topics	• Gemini on Google Cloud • Overview of Gemini on BigQuery • Introduction to course use case
Objectives	• Understand capabilities of Gemini on Google Cloud. • Understand capabilities of Gemini on BigQuery.

Module 02

Data Exploration and Preparation

Topics	• Data exploration and preparation • Insights • Table Explorer
Objectives	• Discover tools that support data exploration. • Identify the benefits and restrictions of Insights and Table Explorer. • Explore data cleaning and pipeline development features in BigQuery.
Activities	• Lab: Explore Data with Gemini in BigQuery

Module 03

Code Development with Gemini

Topics	• Gemini for writing code • Troubleshooting and testing with Gemini • Prompting best practices
Objectives	• Explore using Gemini for writing code. • Identify how Gemini can assist with troubleshooting. • Discover prompting best practices.
Activities	• Lab: Develop Code with Gemini in BigQuery

Module 04

Data Canvas

Topics	• Introduction to Data Canvas • Data Canvas capabilities • Prompting best practices for Data Canvas
Objectives	• Explore Data Canvas features. • Discover prompting best practices for Data Canvas.
Activities	• Lab: Use Data Canvas to Visualize and Design Queries

Module 05

Working with Gemini Models in BigQuery

Topics

- BigQuery ML
- Using Gemini in your SQL queries
- Gemini in BigQuery Notebooks

Objectives

- Discover the capabilities of BigQuery ML.
- Explore using Gemini in your SQL queries.
- Explore using Gemini in Jupyter Notebooks.

Activities

- Lab: Analyze Customer Reviews with SQL
- Lab: Analyze Customer Reviews with Python Notebooks