Training: Google Cloud
Gemini in BigQuery for Data Practitioners

Google Cloud

TRAINING GOALS:

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.

What you'll learn

- Define the features of Gemini in BigQuery that aid the data-to-AI pipeline.
- Explore data with Insights and Table Explorer.
- Develop code with Gemini assistance.
- Discover and visualize workflow with data canvas.
- 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.

Audience

This course is intended 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

- Gemini
- BigQuery
- Vertex AI

CONSPECT:

- Gemini on BigQuery

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- 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.

- 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

- 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

- Data Canvas
  - Topics
    - Introduction to Data Canvas
    - Data Canvas capabilities
    - Prompting best practices for Data Canvas
  - Objectives
    - Explore Data Canvas features.

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        - Discover prompting best practices for Data Canvas.
    - Activities
        - Lab: Use Data Canvas to Visualize and Design Queries
- 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

REQUIREMENTS:

- Prior experience with programming languages including SQL and/or Python.
- Basic knowledge of ML and generative AI.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Google Cloud (course completion).

TRAINER:

Authorized Google Cloud Trainer

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