

Analyzing and Visualizing Data with Looker

Course Duration: 16 Hours

Course code: AVDL

1. Course Overview

This course focuses on analyzing and visualizing data using Google Cloud Looker. It enables learners to explore datasets, create interactive dashboards, and generate actionable insights for business decision-making. The course emphasizes data exploration, visualization best practices, and storytelling techniques using Looker's powerful BI capabilities.

2. What you'll learn?

By the end of the course, you will be able to:

- Understand Looker interface and data exploration workflow
- Analyze datasets using explores and queries
- Create interactive dashboards and visualizations
- Apply data storytelling techniques
- Use filters, parameters, and calculations effectively
- Share insights and collaborate with teams
- Optimize dashboards for performance and usability
- Apply best practices in data visualization

3. Target Audience

- Data Analysts and Business Analysts
- BI Developers
- Marketing and Operations Professionals
- Decision-makers and Managers
- Anyone working with data visualization

4. Pre-Requisites

Before taking this course, you should have:

- Basic understanding of data analysis concepts
- Familiarity with spreadsheets or BI tools
- Basic knowledge of SQL (optional but helpful)

5. Course content

Module 1: Course Introduction

- Course overview and objectives
- Introduction to Looker
- Role of data analytics in business

Module 2: Looker Interface and Navigation

- Overview of Looker UI
- Exploring dashboards and Looks
- Understanding folders and permissions
- Navigation best practices

Module 3: Exploring Data in Looker

- Introduction to Explores
- Running queries
- Selecting dimensions and measures
- Sorting and limiting results

Module 4: Filtering and Parameters

- Applying filters in queries
- Using advanced filters
- Creating parameters
- Dynamic filtering techniques

Module 5: Calculations and Custom Fields

- Creating table calculations
- Using custom fields
- Mathematical and logical operations
- Handling aggregations

Module 6: Data Visualization Fundamentals

- Principles of effective data visualization
- Choosing the right chart types
- Visual clarity and simplicity
- Avoiding common visualization mistakes

Module 7: Creating Charts and Visualizations

- Bar, line, and pie charts
- Tables and pivot tables
- Advanced visualization options
- Customizing visuals

Module 8: Building Dashboards

- Creating dashboards in Looker
- Adding tiles and visualizations
- Arranging layouts
- Interactive dashboard design

Module 9: Advanced Dashboard Features

- Dashboard filters
- Cross-filtering
- Drill-down capabilities
- Embedding dashboards

Module 10: Data Storytelling

- Structuring insights
- Presenting data effectively
- Creating compelling narratives
- Communicating insights to stakeholders

Module 11: Collaboration and Sharing

- Sharing dashboards and Looks
- Managing permissions
- Scheduling reports
- Collaboration workflows

Module 12: Performance Optimization

- Optimizing queries
- Reducing dashboard load time
- Efficient data exploration
- Best practices for performance

Module 13: Integration and Extensions

- Integrating Looker with Google Workspace
- Exporting data and reports
- Using APIs and extensions
- Embedding Looker in applications

Module 14: Governance and Best Practices

- Data governance in Looker
- Maintaining data consistency
- Version control basics
- Best practices for BI reporting

Module 15: Real-World Use Cases and Capstone Project

- Business analytics use cases
- Building a complete dashboard solution
- Case studies and best practices
- Final project and evaluation

