BigQuery for Business Intelligence Training Course

Professional Development Training Course Outline

Category	Business Intelligence	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today's data-driven landscape, businesses require robust tools to transform raw data into actionable insights. BigQuery, Google Cloud's enterprise data warehouse, empowers organizations to analyze massive datasets efficiently, enabling strategic decision-making and predictive analytics. BigQuery for Business Intelligence Training Course provides comprehensive training in BigQuery for business intelligence professionals, equipping participants with practical skills in data modeling, SQL queries, dashboards, and performance optimization. With hands-on exercises, real-world case studies, and expert guidance, participants gain the technical expertise and analytical mindset required to leverage BigQuery for enhanced business performance.

Participants will explore advanced techniques for integrating BigQuery with popular BI tools such as Data Studio, Looker, and Tableau, enabling seamless visualization and reporting. The course emphasizes practical application, ensuring learners can manage large datasets, optimize queries, and implement efficient data pipelines. Whether the goal is to enhance reporting accuracy, reduce query times, or drive predictive analytics, this training equips professionals with the knowledge and confidence to lead data-driven initiatives in their organizations.

Programme Curriculum

BigQuery for Business Training Course

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Course Objectives

1. Understand BigQuery architecture and best practices for data warehousing
2. Write efficient SQL queries for analytics and reporting
3. Implement partitioning, clustering, and optimization strategies for large datasets
4. Integrate BigQuery with popular BI tools for visualization and reporting
5. Design scalable and high-performing data models for business intelligence
6. Perform advanced analytics using window functions, joins, and subqueries
7. Create dashboards and automated reports for business stakeholders
8. Manage permissions, roles, and security in BigQuery
9. Optimize storage and query costs through data lifecycle management
10. Utilize BigQuery ML for predictive analytics and machine learning models
11. Monitor and troubleshoot query performance using logs and monitoring tools
12. Understand ETL and ELT processes in the context of BigQuery
13. Apply real-world case studies to implement business intelligence solutions

Organizational Benefits

- Accelerates decision-making with real-time data insights
- Reduces data processing and reporting times
- Enhances data accuracy and governance
- Streamlines integration with existing BI tools
- Empowers teams with self-service analytics capabilities
- Reduces operational costs through query optimization
- Supports scalable data architecture for future growth
- Encourages data-driven culture across the organization
- Enables predictive analytics for strategic planning
- Improves cross-functional collaboration with centralized data

Target Audiences

1. Business intelligence analysts
2. Data analysts and data scientists
3. Database administrators
4. IT professionals working with cloud platforms
5. BI developers and reporting specialists
6. Decision-makers seeking data-driven insights
7. Project managers overseeing data projects
8. Cloud architects and solution designers

Course Duration: 5 days

Course Modules

Module 1: Introduction to BigQuery

- Understanding BigQuery architecture and components
- Overview of cloud-based data warehousing
- Key features and benefits for business intelligence
- BigQuery datasets, tables, and views
- Use cases for modern enterprises
- Case Study: Migrating on-premises data to BigQuery

Module 2: SQL for BigQuery

- Writing SELECT, WHERE, GROUP BY, and ORDER BY statements
- Joining multiple tables efficiently
- Using window functions for analytical queries
- Subqueries and common table expressions (CTEs)
- Query optimization techniques
- Case Study: Sales analysis for a retail company

Module 3: Data Modeling and Schema Design

- Designing star and snowflake schemas in BigQuery
- Managing nested and repeated fields
- Best practices for schema evolution
- Partitioning and clustering for performance
- Data normalization vs denormalization strategies
- Case Study: Optimizing customer analytics model

Module 4: Advanced Querying Techniques

- Complex joins, unions, and aggregations
- Analytic functions for advanced reporting
- Performance tuning and query execution insights
- Handling large datasets efficiently
- Using scripting and procedural SQL in BigQuery
- Case Study: Marketing campaign performance analysis

Module 5: Integration with BI Tools

- Connecting BigQuery to Google Data Studio
- Integration with Tableau and Looker
- Creating live dashboards and visualizations
- Automated reporting and scheduled extracts
- Data blending and advanced visualization techniques
- Case Study: Finance KPI dashboard creation

Module 6: Data Security and Access Management

- Understanding IAM roles and permissions
- Setting up secure datasets and tables
- Managing sensitive data and compliance

- Auditing and monitoring access logs
- Implementing row-level security policies
- Case Study: Secure multi-department data access

Module 7: ETL and Data Pipelines

- Introduction to ETL and ELT concepts
- Data ingestion from multiple sources
- Using Cloud Dataflow and BigQuery pipelines
- Data transformation best practices
- Error handling and logging in pipelines
- Case Study: Building a sales data pipeline

Module 8: BigQuery ML for Predictive Analytics

- Introduction to BigQuery ML
- Creating regression and classification models
- Model evaluation and performance tuning
- Automating predictions for business insights
- Using ML models in dashboards and reports
- Case Study: Predicting customer churn using BigQuery ML

Training Methodology

- Instructor-led live sessions with interactive Q&A
- Hands-on exercises and real-time query practice
- Case studies from real-world business scenarios
- Group discussions and peer-to-peer knowledge sharing
- Step-by-step demonstrations of integrations with BI tools
- Post-training assessment to reinforce learning
- Continuous access to lab environments for practice
- Guidance on implementing solutions in participants' organizations

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

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