Amazon Redshift 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

Amazon Redshift has emerged as a leading cloud-based data warehouse solution, empowering organizations to perform high-speed analytics and business intelligence operations on massive datasets. Amazon Redshift for Business Intelligence Training Course is designed to equip participants with comprehensive knowledge of Redshift architecture, data modeling, performance optimization, and real-time analytics. Leveraging cutting-edge tools and hands-on exercises, learners will gain practical experience in managing, querying, and transforming data to support data-driven decision-making in dynamic business environments.

Through this Amazon Redshift BI course, participants will master end-to-end data workflows, including ETL processes, data integration, and reporting using BI tools. The course emphasizes real-world applications, case studies, and best practices, ensuring that learners are ready to implement scalable data solutions that drive efficiency, accuracy, and actionable insights. Professionals will develop the ability to optimize query performance, maintain data security, and leverage cloud capabilities for strategic business intelligence.

Programme Curriculum

Amazon Redshift for Business Intelligence Training Course

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Course Objectives

1. Understand Amazon Redshift architecture and cloud-based data warehousing principles.
2. Design and implement efficient data models for analytics and BI reporting.
3. Optimize query performance using best practices and advanced indexing techniques.
4. Perform data ingestion and ETL processes using Redshift Spectrum and AWS Glue.
5. Integrate Amazon Redshift with popular BI tools for interactive dashboards.
6. Implement data security, access control, and compliance best practices.
7. Analyze large datasets efficiently with parallel processing and columnar storage.
8. Apply data transformation techniques to prepare datasets for reporting.
9. Monitor and troubleshoot Redshift clusters for optimal performance.
10. Utilize advanced SQL functions and analytical queries for business insights.
11. Develop cost-effective data warehousing strategies in the cloud.
12. Explore case studies to understand real-world BI implementations.
13. Enhance data-driven decision-making through actionable insights.

Organizational Benefits

- Accelerates data-driven decision-making across departments.
- Improves efficiency in handling large-scale datasets.
- Reduces IT overhead with cloud-native solutions.
- Enhances reporting accuracy and insights generation.
- Enables seamless integration with existing BI platforms.
- Supports compliance and data security policies.
- Increases productivity through optimized query and ETL processes.
- Reduces cost through efficient cloud resource utilization.
- Provides a competitive advantage through actionable analytics.
- Strengthens organizational data governance practices.

Target Audience

1. Data analysts seeking cloud-based BI solutions.
2. Business intelligence professionals.
3. Data engineers and database administrators.
4. Cloud architects and solution developers.
5. IT managers overseeing data operations.
6. Software developers interested in data-driven applications.
7. Enterprise decision-makers leveraging analytics.
8. Reporting and dashboard developers.

Course Duration: 5 days

Course Modules

Module 1: Introduction to Amazon Redshift

- Overview of cloud data warehousing and Redshift services.
- Key components of Redshift architecture.
- Benefits of Redshift over traditional data warehouses.
- Setting up Redshift clusters and connecting to the environment.
- Redshift pricing, storage, and performance considerations.
- Case Study: Migrating an on-premises data warehouse to Redshift.

Module 2: Redshift Data Modeling

- Understanding columnar storage and distribution keys.
- Designing star and snowflake schemas for analytics.
- Best practices for schema optimization.
- Handling large datasets efficiently.
- Techniques for partitioning and sorting data.
- Case Study: Optimizing a sales reporting data model.

Module 3: ETL and Data Loading in Redshift

- Overview of ETL processes in cloud environments.
- Loading data from S3, DynamoDB, and other sources.
- Using Redshift Spectrum for querying external tables.
- Data transformation techniques for BI readiness.
- Automating ETL workflows using AWS Glue.
- Case Study: ETL pipeline for e-commerce analytics.

Module 4: Query Optimization and Performance Tuning

- Understanding query execution plans in Redshift.
- Techniques for indexing, compression, and vacuuming.
- Best practices for writing efficient SQL queries.
- Monitoring query performance and identifying bottlenecks.
- Using workload management (WLM) for concurrency optimization.
- Case Study: Improving reporting speed for finance dashboards.

Module 5: Advanced Analytics with Redshift

- Window functions, aggregations, and advanced SQL features.
- Data transformation for predictive analytics.
- Using Redshift ML for machine learning integrations.
- Optimizing analytical queries for large datasets.
- Leveraging Redshift functions for time-series and trend analysis.
- Case Study: Customer churn prediction using Redshift ML.

Module 6: Integrating Redshift with BI Tools

- Connecting Redshift with Tableau, Power BI, and QuickSight.
- Creating interactive dashboards and visualizations.
- Real-time reporting and analytics using Redshift.
- Handling large datasets in BI tools efficiently.
- Best practices for BI data modeling and visualization.
- Case Study: Dashboard creation for retail analytics.

Module 7: Security, Compliance, and Governance

- Managing user access and role-based permissions.
- Data encryption at rest and in transit.
- Auditing and monitoring Redshift clusters.
- Compliance with GDPR, HIPAA, and industry standards.
- Backup, restore, and disaster recovery best practices.
- Case Study: Implementing secure healthcare analytics platform.

Module 8: Redshift Maintenance and Troubleshooting

- Cluster monitoring and health checks.
- Performance monitoring using AWS CloudWatch.
- Troubleshooting common Redshift errors.
- Scaling clusters and managing storage efficiently.
- Optimizing cost and resource utilization.
- Case Study: Troubleshooting a production Redshift cluster for BI.

Training Methodology

- Interactive instructor-led sessions with live demonstrations.
- Hands-on exercises for real-time Redshift implementation.
- Scenario-based assignments to apply practical skills.
- Group discussions to encourage problem-solving and knowledge sharing.
- Quizzes and assessments to reinforce key concepts.
- Case studies to understand real-world BI applications.

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

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